



AV OPTIMIZES THE DESIGN OF A CRITICAL SYSTEM

City of Lodi Employs GAC to Remove Contaminants From Groundwater

BACKGROUND

The City of Lodi, located in California's Central Valley, sources approximately 50 percent of its drinking water from surface water, with the remaining supply pulled from 23 wells throughout the city. In 2018, 1,2,3-trichloropropane (1,2,3-TCP) was discovered in the north and central service area's groundwater, a man-made, chlorinated hydrocarbon often associated with pesticides and cleaning and degreasing solvents.

According to the California Department of Public Health, granular activated carbon (GAC) is the Best Available Technology (BAT) for the removal of 1,2,3-TCP. The city contracted Deidi Construction, who then partnered with Aqueous Vets® (AV®) as a design build partner. AV supplied the GAC systems, onsite pipe and installation services targeting two wells (27 and 28) for treatment to maintain compliance with state drinking water standards.

PROJECT DETAILS

AV's unique Concept to Commission approach enabled its team to design, manufacture, and install the GAC systems and interconnecting site pipe in just 10 working hours. Additional services provided by AV included pressure testing, system disinfection, carbon loading and conditioning, and final startup and training services.

PROJECT LOCATION

Lodi, CA

PROJECT TIMEFRAME

Well 27:
June 2020–Jan. 2021

PROJECT PHASE

Complete

END USER

The City of Lodi

PROJECT TYPE

Design, Manufacture,
Install

Well 28:
Jan. 2021–Oct. 2021

AV® SCOPE OF WORK

Well 27: \$750,000
Well 28: \$780,000

GENERAL CONTRACTOR

Deidi Construction

CONTACT AV SALES

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KEY GAC SYSTEM DESIGN & OPERATIONAL PARAMETERS	WELL 27 & 28 VALUES
Number of Systems/Vessels per System	4/2
Operating Configuration	Parallel/Lead-Lag
Carbon Capacity/Volume per Vessel ft ³	668.5 ³
Media Type	Coal
Design Flow Rate/Site	3.2 MGD
Hydraulic Loading	7.1 gpm/ft ²
Empty Bed Contact Time per Vessel	6.25 Minutes
Underdrain	Septa/External Ring Header
Overall System Height to Top of Pipe	16'-0"

AV PROJECT SCOPE

AV designed and installed four (4) PF 12-520 GAC treatment systems. Each site has a capacity of 3.2 million gallons of water per day.

