

# GA butterfly, check, and air vacuum valves provide solutions for floating pump station in Orange County



The floating pump station allows for the transfer of stored water from OCWD's Santiago Basins to other OCWD facilities.

January  
**2014**

**GA Industries On-site**

**Owner:** Orange County Water District

**Engineering Consultants:** Butier Engineering,  
Tustin, CA

**Contractor:** RSH Construction,  
American Fiberglass

**General Background:** The Orange County Water District (OCWD) manages the vast groundwater basin under northern and central Orange County, California, that supplies water to more than 20 cities and water agencies, and serves more than 2.4 million residents. The basin is primarily recharged with water from the Santa Ana River, and water enters the basin via settling or percolation ponds in the cities of Anaheim and Orange.

**Products:** One 12" AWWA Butterfly Valve,  
Two 24" AWWA Butterfly Valves,  
Two 24" Tilting Disc Check Valves,  
Three 2" Air Vacuum Valves,  
One 12" Surge Relief Valve

**Location:** The OCWD is located in southern California, USA, just south of Los Angeles County. The District covers more than 350 square miles, and manages 1,600 acres in and near the Santa Ana River to recharge the basin. The District also owns 2,150 acres above Prado Dam.

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The GA Butterfly, Check, and Air Vacuum Valves installed on the floating pump station.

**Project Overview:** The floating pump station allows for transfer of stored water from the District's Santiago Basins to other OCWD facilities. The Santiago Basins are comprised of three basins: Bond, Blue Diamond, and Smith. The project was constructed in Bond Basin, and has increased groundwater recharge and maximized storage capacity during storm events. The floating pump station replaced an existing submersible pump station that was unreliable.

The new pump station was constructed on a floating platform, connected to a 1,400-foot, 32-inch floating discharge pipeline, submersed just below water surface. The floating discharge pipeline connects to the existing distribution pipeline, conveying water out of the Basins. The Bond Basin slope was excavated to connect the floating pipeline to the existing pipeline.

**Why GA?** American Fiberglass (AFG) was the manufacturer of the barge where the floating pump station now rests. When they were first contracted by OCWD to manufacture the barge, they got in touch with GA. AFG knew GA Industries could handle the custom design they would require for manufacturing the barge to OCWD specification. AFG was also confident that GA could produce the high quality valves and related equipment for this unique application.



24" Tilting Disc Check Valve with Bottom Buffer and Top Mounted Hydraulic Cylinder and 2" Air Vacuum Valve at OCWD floating pump station.