



Southern First Aqueduct



2025

ABOUT THIS PROJECT:

Market Segment:
Water Holding Structures

Supplier:
Xypex Chemical Corporation

Products Used:
Xypex Concentrate
Xypex Gamma Cure

Location:
San Diego County,
California, USA

Owner:
San Diego County
Water Authority

Contractor:
Kiewit Infrastructure
West Co.

The San Diego County Water Authority undertook rehabilitation work along the Southern First Aqueduct to support long-term reliability of a critical potable water conveyance system. The project included waterproofing of air release and blow-off valve appurtenance structures located at multiple sites along the aqueduct alignment. These structures are exposed to demanding environmental conditions and play a key role in pressure management and system performance.

Approximately 90 exterior casts in place concrete appurtenance structures were treated as part of the project. Xypex Concentrate was selected to provide permanent crystalline waterproof protection to the exterior concrete surfaces. The treatment seals capillaries and micro cracks while maintaining concrete breathability, helping protect the structures from water ingress and long-term deterioration.



Due to hot, arid desert conditions and high evaporation rates, maintaining proper curing conditions was a critical challenge. Xypex Gamma Cure was applied to retain moisture and support effective crystalline development. This approach ensured consistent installation quality and performance across many repetitive structures.

Xypex provided ongoing technical and field support throughout approximately ten months of construction activities. The combined use of Xypex Concentrate and Xypex Gamma Cure delivered durable, low maintenance protection for essential potable water infrastructure assets and contributed to continued collaboration on subsequent aqueduct rehabilitation phases.

