



SCHIFF ASSOCIATES

Corrosion Engineering Services, Pipelines 4B, 4E1, 5E1, 5E2, San Diego County, California

Client: San Diego County Water Authority (SDCWA)

Key Project Personnel: Graham E.C. Bell, PhD, PE – Project Principal & Manager
Paul Smith, PE – Project Engineer
Robert Pannell – Senior Technician
James Keegan – Technician

Services Provided:

- Assess Project Corrosivity
- Design of Corrosion Control Facilities
- Plant and Field Coating Inspections
- Inspect Deep Well Anode Installation and Test Corrosion Facilities for Conformance Prepared Report with Recommendations for Corrosion Control for Candidate Pipe Materials

Situation:

In order to meet the expanding water needs of San Diego County, SDCWA initiated an improvement program for its second aqueduct, consisting of eight pipeline segments, ranging from 108 to 72 inches in diameter, with a total length of about 63 miles, from Metropolitan Water District of Southern California's Pipeline 6 in North San Diego County to the Lower Otay Reservoir near the Mexican border.

Schiff Associates Response:

Schiff Associates has been or is on Civil Engineering teams to provide corrosion engineering services from preliminary alignment studies, soil corrosivity assessments, coating selection design of corrosion control, and construction acceptance testing. Possible stray current effects were an important consideration in design of cathodic protection for these pipelines since they closely parallel other SDCWA large diameter prestressed concrete cylinder pipelines (stray cathodic protection current can corrode or hydrogen embrittle prestressing wire of such other pipelines).