North Portal Intake Tower Seismic Analysis & Conditions Assessment (2016-C-1)

Project Ranking
94%

Total Estimated Cost: $100,000

Background

Water diversions from Lake Cachuma occur from the North Portal Intake Tower facility into the Tecolote Tunnel and to the South Coast Conduit for water delivery to the Cachuma Project Member Agencies. The vertical intake tower stands 120 feet tall located approximately mid-reservoir and contains five slide gates, each at varying levels on the pentagonal shaped tower. The slides gates are covered with mesh fish screens to prevent fish and debris from entering the tunnel.

Need for Project

The North Portal Intake Tower was constructed by the Bureau of Reclamation in the 1950's, at which time, the standards for structural design requirements were not as stringent as today's compliance requirements and, in fact, were largely nonexistent. Structural elements of the intake structure would be examined to determine the general reliability of the tower, recommendations for upgrades and refurbishments, if needed.

Description

This initial phase of the project consists of acquiring the consulting engineering services of a qualified structural engineering firm to perform a Seismic Reliability Analysis and Physical Condition Assessment of the Lake Cachuma Intake Tower located at the North Portal of the Tecolote Tunnel. It shall include a report of all findings and propose recommendations for structure rehabilitation to increase and/or ensure continued reliability of the structure in the occurrence of a large seismic event.

Phase I (Fiscal Year 17-18): Assessment; Engineering and Design

Regulatory Compliance

N/A

Budget & Schedule — Internal Staff Estimate

Fiscal Year	Cost
2017-18 (Phase I)	$100,000
Total	**$100,000**