

Investigate Structural Requirements of the Steel Collar between Outlet Works and 48-inch Intake Pipe at Lauro Tunnel (2013-2-41)

Project Ranking
49%

Total Estimated Cost: \$30,000



Background

The intake piping of the Lauro Reservoir outlet works intake structure includes a steel collar connection between the intake structure and intake pipe.

The intake component was replaced during 1981 by added a steel pipe that extends through the outlet works and through the top of the original concrete intake structure. A ¾ inch thick steel circular collar was installed on top of the existing intake structure to cover the opening between the intake structure and vertical pipe for either protection from debris intrusion, structural support or both. It is unknown if the steel collar is attached to the vertical steel pipe to connect the two components. The 2013 dive report, prepared by USBR, states the intake structure is in satisfactory condition with the exception of the steel collar. The Bureau was silent on the purpose of the collar and has been unable to verify the purpose the collar serves over and above simply providing a sealed connection between the two structures.

Need for Project

The collar has deteriorated because of corrosion and poses an operational risk for both the protection against outside intrusion of elements penetrating through the opening or potentially structural support.

Description

Engineering services will be retained determine the collar’s expected level of performance (protection from outside element intrusion or structural). Engineering will need to be conducted by a structural engineer to determine if the steel collar is necessary for support and if required, a method to design a repair that will allow for continued structural support of intake structure. The reservoir will need to be lowered to accommodate inspections and repairs.

Regulatory Compliance

This project has been identified by the USBR as a Category 2 recommendation.

Budget & Schedule

Internal Staff Estimate

Fiscal Year	Cost
2019-20	\$30,000
Total	\$30,000