

ARROWROCK DAM OUTLET WORKS REHABILITATION PHYSICAL MODELING

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- **LABORATORY PHYSICAL MODELING OF PROPOSED OUTLET WORKS MODIFICATION.**
- **Proof-of-Concept study to demonstrate performance of Clamshell Gate concept in replacing the existing Ensign Valves that were damaged by cavitation.**
 - Document performance of clamshell gates operated under submerged conditions.
 - Determine hydrostatic and hydrodynamic loading on proposed gate-house structure.
 - Document flow patterns and hydraulic performance characteristics of Clamshell Gate concept.
 - Identify adverse operating conditions of proposed concept.



Figure 1. - Arrowrock Dam: Operation of existing outlet works.

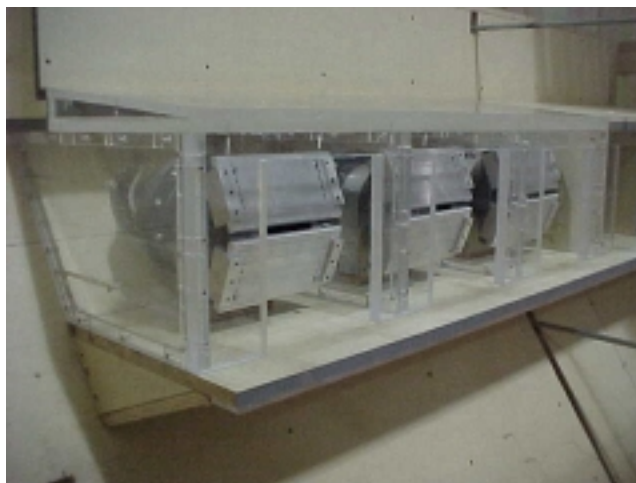


Figure 2. - 1:10 scale physical model of proposed modified outlet works configuration.