**Tracy Research Technical Report Abstract**

* ***Hydraulic Lab HL-2011-10***
Heiner, B.J. and B.W. Mefford. 2011. *Physical Hydraulic Modeling of Secondary Louver Replacement at the Tracy Fish Collection Facility*. Hydraulic Laboratory Report HL-2011-10. U.S. Bureau of Reclamation, Denver Technical Service Center. Hydraulic Investigations and Laboratory Services Group. 36 pp.

The Tracy Fish Collection Facility (TFCF), located near Byron CA, was developed and built in the 1950’s as part of the Central Valley Project to protect fish entering the Delta Mendota Canal. Although the facility was built with the best available technology at the time, many changes to laws, regulations, infrastructure, ecology, debris loads, delta operations and overall presence of fish have driven the TFCF to renovate and improve fish salvage processes. This study was conducted to support the replacement of the existing secondary louver with Hydrolox traveling screens. A partial fullscale hydraulic model of the secondary dewatering system was constructed to determine if the final designs for replacing the secondary louvers with traveling screens would operate as desired. Debris representative of that found at the TFCF was weighed and distributed throughout the inflow of the model and monitored to determine the Hydrolox debris removal efficiency. According to the model study results, it is anticipated that the replacement of existing secondary lovers with Hydrolox screens will provide a substantial amount of debris removal. Additional information regarding velocity profiles in front of the screens, clean water bypass and internal baffling were also collected during this study.