**Tracy Research Technical Report Abstract**

***Volume 47***
Svoboda, Connie. 2011. *Modifications to Bypass System Operations to Improve Hydraulics at the Tracy Fish Collection Facility*. Tracy Fish Collection Facility Studies. Volume 47. U.S. Bureau of Reclamation, Mid Pacific Region and Denver Technical Service Center. 27 pp.

The Bureau of Reclamation's Tracy Fish Collection Facility, located at the head of the Delta-Mendota intake channel in the south Sacramento-San Joaquin Delta, was designed to salvage fish that would otherwise be entrained at the C.W. "Bill" Jones Pumping Plant. This hydraulic study examined whether closure of one or more of four primary bypasses can be used to increase facility compliance with stated bypass ratio and velocity criteria under a broader range of environmental conditions. Results show that closing bypasses will increase primary bypass ratios in remaining open bypasses. However, secondary velocities increase and secondary depths decrease, so bypass ratios are satisfactory, but secondary velocity is too high. After closing primary bypasses, pump settings in the secondary channel can be readjusted to reduce the secondary velocity. Because this operational technique has shown favorable hydraulic results, it is recommended that field experiments be conducted to determine the impact on fish and debris.