**Tracy Research Technical Report Abstract**

* ***Tracy Technical Bulletin 2015-4***  
  Cathy Karp and Judy Lyons.  2015.  *Evaluation of Holding Tank Conditions on Delta Smelt Survival at the Tracy Fish Collection Facility, Byron, California.* July 2015. 21 pp.

The U.S. Department of the Interior, Bureau of Reclamation, Tracy Fish Collection Facility (TFCF) in central California was designed in the mid-1950s to divert, collect, hold, and return salvaged fish to the Sacramento-San Joaquin River Delta. Wild fish diverted from entrainment into the C.W. “Bill” Jones Pumping Plant are collected and held in large, circular in-ground holding tanks for up to 24 h awaiting transport and release. Twelve trials were conducted using delta smelt (*Hypomesus transpacificus*) to further test holding conditions at the TFCF. Delta smelt are listed as threatened under the Endangered Species Act and are one of the most vulnerable fish species salvaged at the TFCF. Delta smelt survival was 97.1 percent through 96-h holding. There was little evidence of injury or mortality due to holding tank confinement. These experiments, in addition to those conducted previously with Sacramento blackfish (*Orthodon microlepidotus*) and juvenile Chinook salmon (*Oncorhynchus tshawytscha*) suggest that the current holding environment at the TFCF is relatively benign for salvaged fish under the conditions tested.