**Tracy Research Technical Report Abstract**

***Volume 50***
Brandon J. Wu and Brent B. Bridges. 2014. Evaluation of a New Technique to Remove Debris from Holding Tanks at the Tracy Fish Collection Facility. 33 pp.

Debris in holding tanks at the Tracy Fish Collection Facility (TFCF; Byron, California) interferes with fish salvage operations and may damage fish. A new debris removal technique was evaluated with the two most common types of debris at the TFCF: green and woody. The technique, called the Holding Tank Screen Lift (HTSL), required momentarily lifting the screens (approximately 1 s) situated in the center of the holding tanks to allow debris passage underneath. The procedure added, on average, 4.4 min and 4.6 min to the fish-count and haul-out processes, respectively. On average, 49 percent of green debris and 81 percent of woody debris were removed by completing the HTSL. Fish loss was 31 percent and 1 percent when the HTSL was used to remove green and woody debris, respectively. Due to loss of fish when using the HTSL, it will be necessary to sort through all debris removed during fish-counts and load all debris removed during haul-outs into the fish-haul truck. The HTSL is still useful at high debris loads because it can prevent filling of the fish-count station or clogging of the fish-count and haul-out bucket discharges during sample release, which likely promotes fish survival during the salvage process. The HTSL should be implemented during fish-counts when there is ≥ 8 kg of green debris or ≥ 26 kg of woody debris and during haul-outs when there is ≥ 90 kg of green debris or when amounts of woody debris are causing complications when loading the fish-haul truck.