



Jones Pumping Plant

Overview

The C.W. "Bill" Jones Pumping Plant is a key component of the Central Valley Project (CVP), one of the nation's largest systems for storing and moving water. The nearby Tracy Fish Collection Facility is operated in conjunction with the pumping plant to protect and salvage fish from pump operations.

Background

The pumping plant near Tracy, California, lifts water at the southern end of the Sacramento-San Joaquin Delta into the Delta-Mendota Canal (DMC), which delivers water to CVP water service contractors, exchange contractors, and wildlife refuges. The contractors provide agricultural and urban water service in the western San Joaquin Valley, and portions of San Benito and Santa Clara counties.

The pumping plant, operated by the San Luis & Delta-Mendota Water Authority for Reclamation, lifts water nearly 200-feet from the Delta into the DMC through 15-foot diameter pipes using one or more of the six 22,500-horsepower motors (one used for back-up). Due to subsidence issues in the DMC, pumping capacity is generally limited to 4,600 cubic feet per second.



The Delta-Mendota Canal flows from the pumping plant.

The DMC extends nearly 120 miles to the south, ending at the Mendota Pool about 30 miles west of Fresno. The CVP water is also conveyed with pumping units to the San Luis Reservoir for deliveries to CVP contractors through the San Luis Canal.



The Jones Pumping Plant is located near Tracy, California, adjacent to a high voltage switchyard that serves as a major substation for the regional power grid.



Shown is one of the plant's six motors, all of which recently underwent a successful rewind maintenance project, funded by Reclamation.

The facility was constructed from 1947 to 1951, and is named after C.W. "Bill" Jones, who served as president of the San Luis & Delta-Mendota Water Authority for 20 years. He was a pioneer in water service development in the San Joaquin Valley.

Tracy Fish Collection Facility

Nearby Jones Pumping Plant is the Tracy Fish Collection Facility, which diverts threatened and endangered fish away from the pumps to meet regulatory requirements.



Aerial view of the Tracy Fish Collection Facility.

The fish collection facility is a complex system of louvers, bypasses, and holding tanks operated to protect and salvage resident and outmigrating fish. The facility collects fish species as a primary mitigation feature for the pumping plant and returns them to the Delta at the confluence of the Sacramento and San Joaquin rivers away from the influence of the pumping plant.

The fish facility was constructed in the mid-1950s. Since then, Reclamation has made periodic improvements and continues to adopt state-of-the-art technical and biological techniques to reduce fish losses associated with pumping.

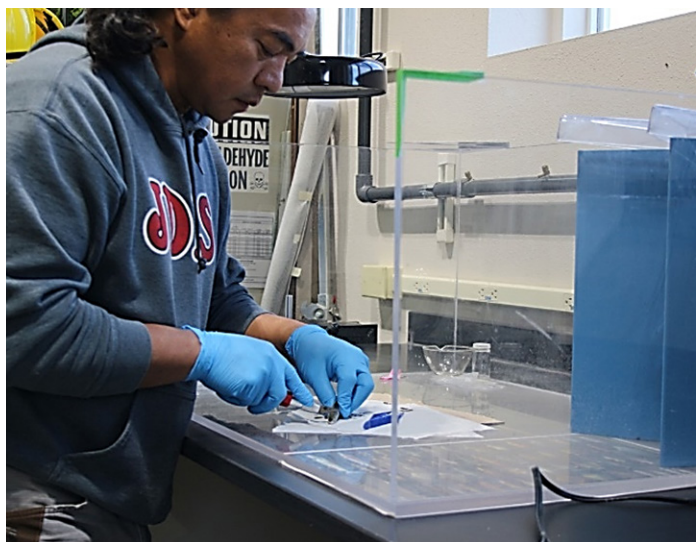
Threadfin shad, striped bass, and American shad are the most prevalent of the nearly 60 species of fish collected at the facility. Listed species include Delta smelt, winter-run and spring-run Chinook salmon, steelhead, and green sturgeon. Fish salvage is monitored by sampling and counting collected fish every two hours. Monitoring includes identifying fish species, collecting tissue samples from listed species, processing monitoring tags, and recording and tracking of the number of fish salvaged.



Salvaged fish are loaded into a fish-transport truck for release back into the Delta.

Reclamation implements an applied research program for improving fish salvage at the collection facility. The goal is to develop and implement new fish collection, holding, transport, and release technology that will significantly improve fish protection at major water diversions in the South Delta region of the Central Valley.

These research activities are funded by the Tracy Fish Facility Improvement Program and are primarily performed by Reclamation fishery scientists and engineers at the Denver Technical Service Center and the Tracy Fish Collection Facility.



Reclamation fish biologist extracts a monitoring tag from a juvenile salmon.