Overview

Fremont Weir is an armored, 1.8-mile stretch of levee along the Sacramento River that diverts high water from the river into the 40-mile-long Yolo Bypass. Adult salmon and sturgeon on their way upstream are often attracted into the Yolo Bypass after high water overtops the weir and can become stranded when waters recede. Reclamation and the California Department of Water Resources (DWR) constructed the Fremont Weir Adult Fish Passage Modification to create a better exit for fish at Fremont Weir.

Background

The Fremont Weir, at the northern end of the Yolo Bypass, was completed in 1924. The weir has a concrete stilling basin just downstream of the crest along its full length to minimize scouring during overtopping events. Once the Sacramento River recedes below the crest of Fremont Weir, fish are likely to become stranded in the stilling basin. California Department of Fish and Wildlife constructed a four-foot-wide, six-foot-deep concrete fish ladder in 1965. The ladder provided insufficient passage for adult salmon and did not provide passage for adult sturgeon.

Fremont Weir Adult Fish Passage Modification Project

Beginning in 2018, Reclamation and DWR began the Fremont Weir Adult Fish Passage Modification Project to improve adult fish passage at the Fremont Weir and along the Tule Canal in the Yolo Bypass. The project constructed a new fish passage structure at Fremont Weir to widen and deepen the fish ladder.
The new Fremont Weir fish ladder has a 15-foot-wide by 9-foot-high opening with a remotely operated bottom-hinged gate.

The project also removed barriers in the Tule Canal by removing one agricultural road crossing and replacing another.

Flows through the structure following an overtopping event allow fish to exit the bypass.

Not long after construction of the Fremont Weir Fish Passage project, high flows on the Sacramento River in early 2019 crested above Fremont Weir. At least 70 sturgeon and more than 4,000 other fish passed through the new structure.

Sonar-observed fish, pictured above, using the upgraded fish passage structure.