



Fremont Weir

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.



The Fremont Weir is located on the northern end of the Yolo Bypass, along the Sacramento River northeast of Woodland.

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.



The 1965 fish ladder is displayed.

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.

Federal and state agencies in 2022 broke ground on a project that will become the single largest floodplain salmon rearing habitat restoration in California history. Reclamation and the state's Department of Water Resources are partnering on the "Big Notch Project," a 30,000-acre floodplain habitat restoration and fish passage project in the Yolo Bypass.

The \$190 million project includes a two-way fish passage gateway at the head of the Fremont Weir, a process that entails the excavation of 180,000 cubic yards to carve a new path for the salmon, construction of a control building, and a pedestrian bridge. The 100-foot-wide gateway, or "Big Notch," will open each winter, allowing juvenile salmon to move from the Sacramento River onto the floodplain and then back into the Sacramento River at Cache Slough. The project will also allow adult salmon, steelhead, and sturgeon to easily access the Sacramento River from the bypass.

When the project is finished in 2023, the "Big Notch," will be opened when the Sacramento River is high enough to flow into the Yolo Bypass floodplain. Juvenile salmon will be able to feed in a food-rich area for a longer time, allowing them to grow more rapidly in size, improving their chances of survival as they travel to the Pacific Ocean. Adult salmon and sturgeon will benefit from improvements that will reduce stranding and migratory delays due to passage barriers.



Project partners break ground for Big Notch Project.