



# Yolo Bypass Habitat Restoration Projects

The Yolo Bypass Habitat Restoration (YBHR) Program is tasked with developing and implementing restoration actions in the Yolo Bypass that satisfy the 2009 National Marine Fisheries Service Biological Opinion (NMFS BO) for the long-term operation of the State Water Project as described in the 2012 Yolo Bypass Salmonid Habitat Restoration and Fish Passage Implementation Plan. Six separate projects have been identified and are being evaluated and implemented to carry out the RPA Actions specific to the Yolo Bypass.

## **Agricultural Road Crossing 4 Fish Passage Project**

The Yolo Bypass Salmonid Habitat Restoration and Fish Passage Implementation Plan identified Agricultural Road Crossing 4 as a fish passage impediment. It is an earthen road crossing that spans Tule Canal, just south of where the Sacramento Bypass connects with the Yolo Bypass. The crossing provides the ability to impound water for agricultural and waterfowl purposes. DWR is in the process of developing early conceptual options to improve fish passage through the Tule Canal in the Yolo Bypass.

**Planning and Design Status:** Planning for this project is at the conceptual design level.

**Anticipated Construction:** 2020

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## **Fremont Weir Adult Fish Passage Modification Project**

DWR and Reclamation have constructed the Fremont Weir Adult Fish Passage Modification Project, to improve salmonid and sturgeon passage in the Yolo Bypass by:

- Modifying the existing Fremont Weir fish ladder to provide upstream passage when the Sacramento River overtops Fremont Weir and immediately after the river recedes.
- Improving fish passage conditions in the channel that extends from the existing fish ladder upstream to the Sacramento River.
- Improving fish passage conditions in the scour channel that extends from the existing fish ladder downstream to an existing deep pond.
- Removing one earthen agricultural road crossing and replacing one earthen agricultural road crossing with a structure that allows for fish passage through the Tule Canal and continued agricultural utility.

**Planning and Design Status:** DWR and Reclamation released a draft Initial Study and Environmental Assessment (IS/EA) and proposed Mitigated Negative Declaration (MND) for the proposed Fremont Weir Adult Fish Passage Modification Project for public review in spring and summer of 2017 (State Clearinghouse Number 201702212). **A Notice of Determination (NOD) and final IS/EA and MND was filed with the State Clearinghouse in August of 2017 and all permits were received in summer 2017.**

**Anticipated Construction:** Construction began in fall 2017 and will be finished in early 2019.

**Operations:** According to the final IS/EA, and in conjunction with the [NOAA California Nevada River Forecast Center \(CNRFC\) Sacramento River -Fremont Weir \(FMWC1\) gauge](#), the gated structure will be opened following a Fremont Weir overtopping event once the Sacramento River reaches a stage of 32.3 feet, at the location of the new structure. Two of the three operating scenarios identified in the final IS/EA will be implemented once the fish passage structure is opened. These scenarios are:

- Scenario 2: The fish passage structure remains open for three days after Fremont Weir stops overtopping; Or
- Scenario 3: The fish passage structure remains open for one day after Fremont Weir stops overtopping and reopens when the river stage falls below 27 feet and closes when the river stage reaches 24 feet, for no longer than five days.

Modeling results for Scenarios 2 and 3 indicated no significant changes in Yolo Bypass drainage and inundation patterns (see IS/EA Figure 3.10-1 through Figure 3.10-3 in section 3.10 "Hydrology and Water Quality"), therefore, operation of the Project will have no significant impacts on land use in the Yolo Bypass.

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### **Lisbon Weir Fish Passage Project**

Lisbon Weir impedes migratory fish passage when the water level is below the overtopping elevation of the weir and if the flap gates are closed. This Project would modify the weir to enhance both upstream and downstream fish passage while maintaining a reliable agricultural diversion.

**Planning and Design Status:** Planning for this project is at the conceptual design level.

**Anticipated Construction:** 2020

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### **Lower Putah Creek Restoration Project**

The Project will create a new Lower Putah Creek channel where Putah Creek joins and flows through the Yolo Bypass. This Project will improve fish passage and native fish habitat, including seasonally flooded wetlands. The new channel will connect Putah Creek with previously restored tidal channels along the Toe Drain and widen and enhance those channels. Finally, the Project will improve fish passage to and from spawning grounds on upper Putah Creek by installing a structure that will better control the seasonal timing and magnitude of creek flows.

**Planning and Design Status:** The California Department of Fish and Wildlife (CDFW) has previously led the planning effort and CEQA compliance for this project. Currently, DWR has taken the lead in planning this project. Planning for this Project is at the conceptual design level.

**Anticipated Construction:** 2021

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### **Wallace Weir Adult Fish Rescue Facility**

Wallace Weir is a water control structure on the Knights Landing Ridge Cut where it enters the west side of the Yolo Bypass. Adult salmon have been found in dead-end agricultural ditches upstream of the weir in the Colusa Basin Drain system, especially when flows in the Knights Landing Ridge Cut are high. Once salmon enter the Knights Landing Ridge Cut, there is no upstream route for them to return to the Sacramento River; the fish are unable to spawn and they perish without reproducing. The earthen dam, which washes away during high flow events, was replaced with a permanent structure that will prevent migration of salmon and sturgeon into the Knights Landing Ridge Cut and Colusa Basin Drain. The Project also includes a facility to allow for efficient trapping and relocation of fish to the Sacramento River.

**Planning and Design Status:** DWR worked with Reclamation District (RD) 108 to plan and permit this Project. Visit RD 108 [Wallace Weir Fish Rescue Facility Page](#) to access more information and download the Initial Study and Mitigated Negative Declaration, which was released in April 2016.

**Construction:** Construction began in 2016 and will be finished in early 2019.

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### **Yolo Bypass Salmonid Habitat Restoration and Fish Passage Project**

DWR and Reclamation have developed the Yolo Bypass Salmonid Habitat Restoration and Fish Passage Project to improve fish passage and increase floodplain fisheries rearing habitat in Yolo Bypass and the lower Sacramento River basin. The Project would primarily consist of a new Fremont Weir headworks structure, a new outlet channel, and downstream channel improvements. Each of these facilities is a component of the three different proposed outlet channel alignments (east, center, and west) in the Yolo Bypass. Each channel alignment would terminate downstream into the existing Tule Pond. Additional alternative-specific features have been identified to further meet the intent of the RPA actions. In addition, to improve fish passage, the project will also include modification to an agricultural road crossing in the Yolo Bypass.

**Planning and Design Status:** The Final Environmental Impact Statement/Environmental Impact Report (EIS/EIR) was released on June 7, 2019. An electronic copy of the Final EIS/EIR can be accessed on [Reclamation's website](#). The Notice of Determination (NOD) was signed and filed with the State Clearinghouse on July 19, 2019 and can be accessed via [CEQAnet](#). After conclusion of the CEQA/NEPA process, the project will move forward with design, permitting, and real estate right-of-way acquisitions.

**Anticipated Construction:** 2020 or 2021

**Yolo Bypass Salmonid Habitat Restoration and Fish Passage Project Data Viewer:** DWR and Reclamation created the Yolo Bypass Salmonid Habitat Restoration and Fish Passage Project Data

Viewer (Data Viewer) as a platform to view modeled results of how increased flows may affect inundation within the Yolo Bypass. The Data Viewer is publicly accessible and provides hydrodynamic modeling results and maps for any selected assessor parcel in the Yolo Bypass.

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## Resources

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[Reclamation Bay Delta Office - Yolo Bypass Salmonid Habitat Restoration and Fish Passage](#)

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[EcoRestore](#)

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[Long-Term Operations of the Central Valley Project and State Water Project](#)

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[NOAA Fisheries West Coast Region](#)