

Tule Canal Enhancement Project

Canal Enhancement in Yolo County, CA

A PROJECT
BENEFITING



SALMONIDS

The Conaway Preservation Group, owners of the Conaway Ranch, are conducting a feasibility study to enhance the existing Tule Canal corridor within the Yolo Bypass as it runs through Conaway Ranch. This study is funded by Reclamation District 108 under a US Bureau of Reclamation grant. The Group plans to create a more vibrant and diverse wetland and riparian corridor by expanding the functional footprint of the Tule Canal, while maintaining existing water supply, drainage, flood conveyance, and fish passage functions of the canal and adjacent agricultural lands.



AQUATIC HABITAT

The Tule Canal functions as a water supply and agricultural drainage channel and includes significant riparian habitat resources along its banks. It is fed by flows from the Sacramento River system and drains into Prospect Slough.



AGRICULTURE

This study will evaluate environmental enhancement concepts to expand wetland functions of the Tule Canal on Conaway Ranch. A preferred enhancement concept will be advanced to design, environmental review, permitting, funding, and implementation. Expansion of this feasibility analysis to lands north and south of Conaway Ranch are possible, however they are not currently part of the study.



WATERFOWL

The project team envisions a transformed Tule Canal as an integrated corridor that engages people, sustains farmers, protects property, and provides year-round and seasonal wetland habitat for a variety of aquatic and avian species, many of which are either listed as threatened or endangered under federal and state endangered species acts.

Progress updates can be found at www.tcenhancement.com.

Expanding Wetland and Riparian Habitats

The current enhancement opportunity is to expand the wetland area and functions within a 299 acre corridor that includes reforming 28 acres of canal, enhancing 121 acres of riparian habitat, and creating 150 acres of wetland and riparian habitats. The result would be a substantial benefit to aquatic and terrestrial species of concern, with limited impacts to ranch operations and no loss of offsite water supply and drainage functions.

This enhancement concept is one component of an overall environmental enhancement concept for the Conaway Ranch intended to provide habitat benefits to endangered and threatened Salmonid species, as shown in Figure 1. Figure 2 shows specific design concepts being evaluated under this study for the Tule Canal.

Existing riparian communities would be enhanced with the addition of bench-step wetland and riparian habitats that would be periodically inundated under a range of flows in the canal, as shown in Figure 3 on the next page. The Tule Canal Enhancement Project would take advantage of existing drainage flows in the Tule Canal and more frequent inflows expected as a result of the Yolo Bypass Salmonid Habitat Restoration and Fish Passage Project (Big Notch).

Feasibility Study Goals

The proposed feasibility study is for the Tule Canal Enhancement component of a larger vision at Conaway Ranch that includes salmonid floodplain reconnection with Fish Rearing and Fish Food Subsidy components.

The two other components envision reconnecting about 3470 acres of Conaway Ranch to the Sacramento River for salmonid rearing and feeding during high flows, and an additional 2,800 acres that could be flooded to provide food subsidy for anadromous and other fish. Feasibility studies for these two other components will be pursued as funding becomes available. Enhancement options will be designed in a way to coordinate with future plans which may be pursued outside the canal.

The goal of the Tule Canal Enhancement Project is to modify the existing Tule Canal on the Conaway Ranch property to function as an enhanced permanent and seasonal riparian wetland feature, while retaining drainage and water supply functions. The Project will benefit fall-run, spring-run, and winter-run Chinook salmon as well as Steelhead trout by improving in-channel and floodplain rearing opportunities along the Tule Canal corridor.

The Project will also benefit aquatic, terrestrial, and amphibian species, including threatened and endangered species such as Giant Garter Snake, Western Pond Turtle, Yellow Billed Cuckoo, Swainson's Hawk, and Tricolored Blackbird. All would benefit from expanded wetland and riparian habitats providing nesting and foraging habitat for bird species, seasonal salmon floodplain rearing habitat for salmonids, and permanent refugia for Giant Garter Snake and other amphibians.

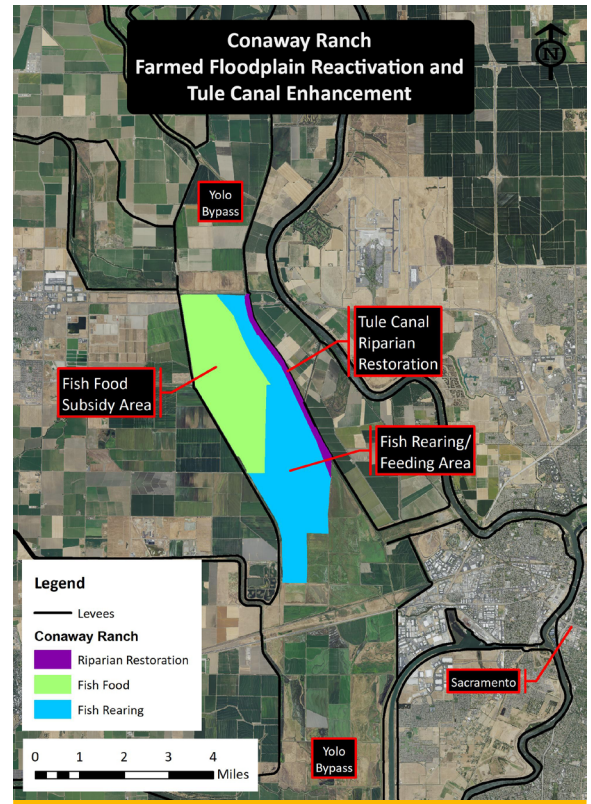


FIGURE 1

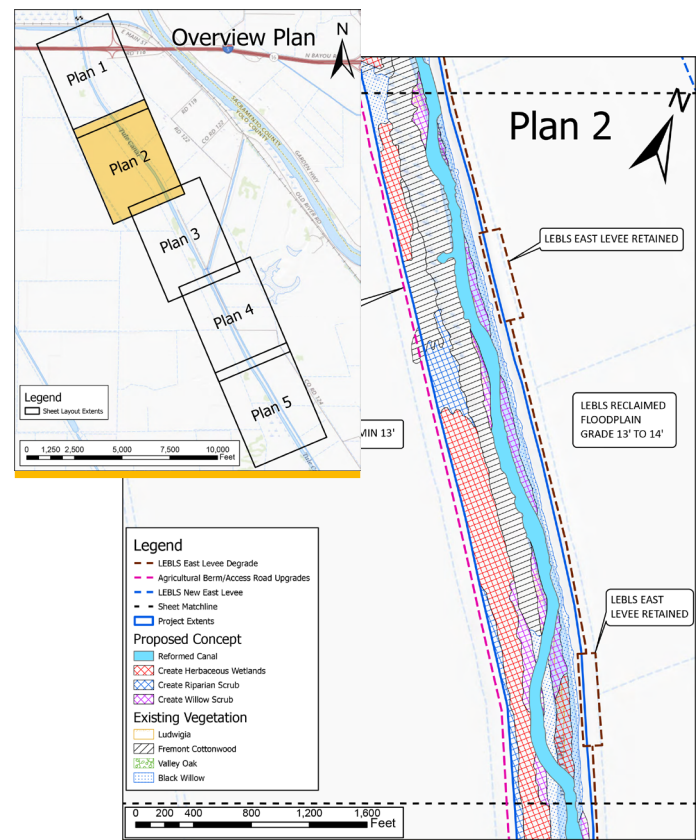


FIGURE 2



Tule Canal Wetland Corridor Enhancements Conceptual Cross Section

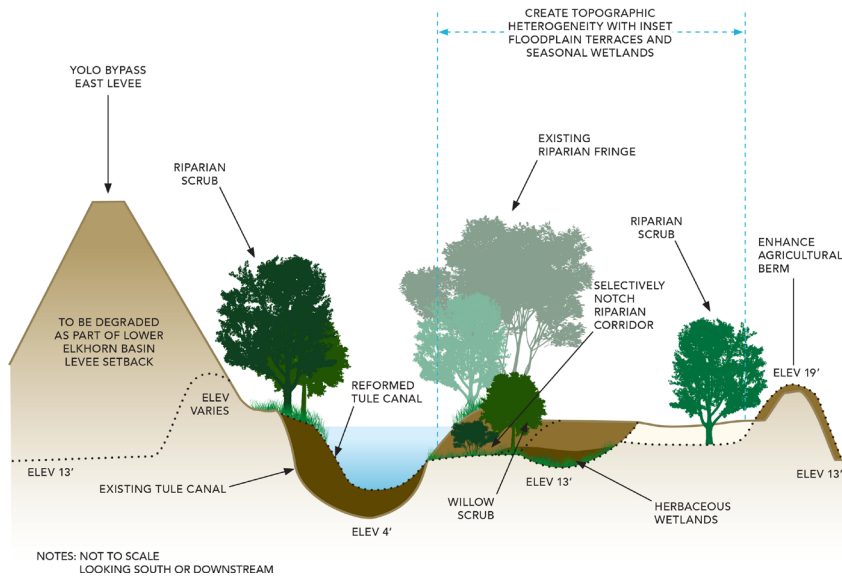


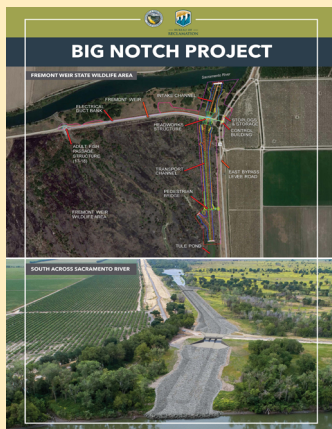
FIGURE 3

Known Issues for Evaluation

- Managing channel habitat to accommodate all species of concern
- Retaining functionality of the canal for water supply and drainage on the Conaway Ranch, and for upstream and downstream users
- Channel maintenance necessary to preserve water supply and drainage functions while providing enhanced wetland habitat
- Managing invasive aquatic vegetation
- Preservation of farmland and compliance with Chapter 10, Yolo County Code of Ordinances, Habitat Mitigation Ordinance

Related Projects

The feasibility study will be conducted with the integration of other important flood and restoration projects being evaluated or implemented in the region, including but not limited to the following:



- **Big Notch Project**
DWR and Reclamation have developed the Yolo Bypass Salmonid Habitat Restoration and Fish Passage (Big Notch) Project to improve fish passage and increase floodplain fisheries rearing habitat in Yolo Bypass and the lower Sacramento River basin.

- **Nigiri Project**
The Nigiri Project is proposed to employ site-specific science to manage floodwaters on agricultural lands, providing ecologically rich habitat for self-sustaining populations of fish and wildlife in the Central Valley.
- **Floodplains Reimagined**
This program will work in concert with a constellation of efforts underway in the Colusa, Butte, and Sutter Basins in the Mid-Sacramento River Valley region to improve the floodplain functional connectivity to support salmon, birds, and agriculture.
- **Lower Elkhorn Basin Levee Setback Project**
The Lower Elkhorn Basin Levee Setback (LEBLS) Project has been coordinated with the potential projects on the Conaway Ranch to assure its design does not diminish the potential for function of the projects on the Ranch.
- **Yolo Bypass Cache Slough Partnership**
A group of local, state, and federal agencies, regional organizations, Native American Tribes, and other parties collaborating to implement projects capable of delivering multiple benefits across a shared YBCS landscape.

- **Floodplain Forward Coalition**
A collective effort to reactivate the floodplain in California's Sacramento River Basin spearheaded by a diverse coalition of conservation organizations, farmers and other landowners, local governments, water suppliers and academic institutions.
- **Yolo Habitat Conservation Plan**
The Yolo Habitat Conservation Plan is a model conservation plan to provide Endangered Species Act permits and associated mitigation for infrastructure and development activities, identified for construction over the next 50 years in Yolo County.

TCE Project Team

