

Uncovering Best Solutions for Fish, Wildlife and All Californians

CHANNELIZED UNIMPAIRED FLOWS

VS

MULTI-BENEFICIAL FLOODPLAINS

Scientists, conservationists and landowners in the Sacramento Valley are working toward solutions to boost the health and habitats of fish and wildlife in California. Years of proven results and scientific-based studies reveal a clear choice on how to best manage water to benefit fish, wildlife and people.

OPTION 1

Continue Unimpaired Flows in the Bare River Channels

Levees have been built along the Delta and lower Sacramento River channels to protect cities and rural areas from flooding. Designed to push water quickly through the system, the river channels have become bare and sterile, thus leaving fish and wildlife extremely vulnerable to predators and without proper food sources.

For 50 years various regulatory proposals have required significant flows into these bare channels with agencies making adjustments based on total volume or based on a percent of unimpaired flow. This method has led to both a decline in fish populations and water supply reliability.

Leading wildlife scientists, including California's Lead Scientist, have concluded that adding any measure of volume or percent of flow still leaves the bare river channels inhospitable to fish and wildlife.



OPTION 2

Tap Into the Historic Floodplains

Much of the Sacramento Valley lies in the historic floodplain and can still be reactivated in a way that provides flood protection for communities, benefits to fish and wildlife and groundwater recharge.

Scientists point to the floodplain as the place where fish and wildlife can reap the most benefit while living within the highly managed California water system.

The floodplains are reactivated by spreading a shallow amount of water out on the landscape and slowing it down to connect with the landscape and the sun. These [reactivated floodplains produce](#) food and safety for both fish and birds.



Bare River Channels vs Floodplain Activation

	BARE RIVER CHANNEL	FLOODPLAINS
Food and Rearing Habitat for Birds	✗	✓
Adequate Food Production for Fish	✗	✓
Safe Rearing Habitat for Juvenile Fish	✗	✓
Produce Food for Birds, Fish, People	✗	✓

Same Water. Better Results

[Scientific-based data](#) proves that putting water on the historical floodplain and allowing fish and birds more residence time on these lands improves their health and chances of survival. With more access to food and rearing habitat, native and migrating bird populations have soared in the past several decades. In addition, recent studies reveal juvenile salmon that feed on the floodplains are stronger and healthier when they are ready to migrate, thus improving their chances of reaching the Pacific Ocean.

Marrying Water, Land and Sunlight for Bountiful Life



The combination of water, land and sunlight has proven throughout time to be the equation for proper life support and healthy population numbers for all species. California's Valley floor is a perfect testament to what is possible when all three work in harmony.

The Multiple Benefit Projects on our Floodplains

Improving the Pacific Flyway

Spreading water out on wildlife refuges and ricelands has served as a key ingredient to bountiful food supply and resting grounds for local and migrating geese, shorebirds and waterfowl. The past several decades have shown bird populations soar due in part to the efforts in the Central Valley by scientists, public agencies, conservationists and rice farmers.

[Read more](#)



The Success of Butte Creek

Up to 10,000 Chinook salmon return to spawn each year after small tweaks were made to Butte Creek. This is a result of a redirection of Butte Creek through the Butte Sink and Sutter Bypass (a reactivated floodplain) coupled with improvements in the upper part of the creek.

[Read more](#)

Reconnecting Bypasses and Side Channels

Connecting bypasses and side channels to the rivers are showing great promise for fish populations. Encouraging scientific survey results reveal fish numbers rise when bypasses in the Sacramento Valley are reconnected to the rivers during non-flood times. These bypasses and channels provide vital food sources and safety for salmon and birds.

[Read more](#)



Feeding Fish on Floodplain Farm Fields

Just because fish are not able to access farmland on the dry-side of the levees, doesn't mean these fields can't be used to grow fish food. Spreading water out on farmlands during the fall and winter produces an abundance of zooplankton (desirable fish food) that can then be drained back to the river to help feed salmon. The food source is also important to birds who feed on the bugs during the fall migration. [Read more](#)