

Stories You Haven't Seen

Sacramento Valley Salmon Recovery Program

The Sacramento Valley Salmon Recovery Program (Recovery Program) is a comprehensive effort to address all salmon life-cycle stages that occur in fresh water by implementing projects and flows that serve <u>multiple benefits</u> throughout the region. The links to videos below help visualize the various projects that have been completed in the Sacramento Valley to advance salmon recovery in the region.

More than 140 projects have been completed in the Sacramento Valley to benefit salmon <u>since 2000</u>. The Recovery Program continues to build on these efforts by targeting specific river reaches in the Sacramento River Basin to ensure that projects provide maximum benefit to the different life-cycle stages.

Butte Creek

Work in the 1990s to improve habitat for spring-run Chinook salmon on Butte Creek provides a good model for salmon recovery in the Sacramento Valley. The <u>comprehensive effort</u> on Butte Creek joined upstream functional flows for spawning and holding habitat with barrier removal in the middle river that improved connectivity with the Sutter Bypass floodplain in the lower river, which provided food and ideal rearing habitat for outmigrating juvenile fish.

Upper River

In the upper reaches of the Sacramento River and its tributaries, returning adult salmon "hold" while they wait to spawn. Once spawning occurs, egg incubation begins followed by fry and juvenile fish rearing. Projects implemented to benefit fish in the upper river include adding spawning gravel, beds and riffles, developing side channels, refugia projects and other safe habitat for fry and juvenile fish. Water resource managers carefully manage the associated flows and cold water to maximize the habitat value of the projects.

- Salmon Spawning Gravel Project
- > Saving the Salmon: Shelter Project
- Salmon Shelters: Root Wads
- > Market Street Side Channel Project Overview
- > Market Street Side Channel Partnerships
- > Market Street Side Channel Construction
- > American River Salmonid Habitat Restoration Project Construction
- > American River Salmonid Habitat Restoration at Sacramento Bar





Middle River

This portion of the river serves as a migratory corridor for Chinook salmon to and from the spawning grounds in the upper river. In the middle river, projects are implemented to promote survivability of out-migrating juveniles by preventing entrainment in water diversions by installing fish screens and decreasing the impact of predation through the identification and removal of predator "hot spots." For returning adult Chinook salmon, projects and pulse flows are targeted to reduce straying from the main channel and to remove barriers that block or delay upstream migration to the spawning grounds.

Bullock Bend Oxbow Reconnection

RD 2035/WDCWA Fish Screen Construction

Lower River

At one time, the lower reaches of the river would spread out during the winter and early spring on a vast floodplain, providing food and ideal shallow water habitat at just the right time for out-migrating juvenile salmon. The construction of flood control infrastructure in the last century disconnected the rivers from the floodplain, restricting fish in a leveed river channel devoid of adequate food and refuge from predators. Today, projects implemented on this portion of the river encourage fish to migrate on the remaining floodplain (i.e., the bypasses), use the historic floodplain (now rice fields and managed wetlands) to feed fish, and manage flows to promote food production and outmigration survival. The value of these floodplains to salmon is described in great detail in the University of California's Floodplains: Processes and Management for Ecosystem Services.

- >The New Way Forward: Wetlands
- Saving the Salmon: Growing Fish Food on Farm Fields
- Salmon Raised in Rice Fields
- >Fremont Weir Fish Passage Project Groundbreaking Ceremony
- > Wallace Weir Project Will Save Salmon
- >Wallace Weir Construction Event
- Knights Landing Outfall Gates (KLOG) Salmon Protection Project
- > Nigiri Project: Salmon in Rice Fields

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For more information on the Sacramento Valley Salmon Recovery Program, Chinook salmon and other recovery efforts, visit:

www.norcalwater.org/salmon

To easily access these videos, this document is available at

www.norcalwater.org/svsrpstoriesyouhaventseen/