



Reactivating our Floodplains – A New Way Forward for California

The Sacramento Valley is a rich mosaic of human settlement, farms, managed wetlands, and meandering rivers that support people, fisheries, and wildlife. Farms, rural communities and cities thrive next to wildlife refuges and rivers, and together they support millions of birds and other wildlife that have lived there for millennia.

Nearly all of the Sacramento Valley floor is part of the historic floodplain—the naturally flood prone areas surrounding the river. Before levees and dams were built to protect people from catastrophic floods, this floodplain supported robust fish and wildlife populations.

Farmland (primarily ricelands), wildlife refuges, and the bypasses designed for flood protection can be managed to work together for dynamic conservation and to mimic the historic floodplain in the Sacramento Valley, while continuing to provide flood protection for Sacramento and other parts of the Valley. Spreading out and slowing down water across this landscape mimics natural flows and provides multiple benefits year-round by allowing farmers to cultivate rice and other crops for humans during the spring and summer, habitat for wild birds, reptiles, and other fauna in the fall, and food for migratory birds and native fish species in the winter. This holistic water management can bring our ecosystem to life through the careful interaction of water, sun and land.

The Sacramento Valley is fertile ground for developing a new path forward for holistic water management that incorporates best available science and practical know-how of farm and refuge managers to reactivate the floodplain in a way that:



Embraces the best available science and the work of leading scientists from the University of California and throughout the world who are demonstrating the value and importance of reactivating floodplains as the key element to improve conditions for fish and wildlife within a managed water system like the Sacramento Valley. See the U.C. Press book: [Floodplains: Processes and Management for Ecosystem Services](#).



Engages many forward-thinking landowners in the Sacramento Valley who are implementing environmental farming practices and wetlands management techniques that reactivate the traditional floodplain for multiple benefits. This includes fish growing in fields in the bypasses (i.e., [Nigiri Project](#)); producing food for salmon on farm fields (i.e., [River Garden Farms](#)); the [Delta Smelt food program](#) for the north Delta; and reconnecting oxbows (i.e., [Bullock Bend](#)) to the river channel.





Supports the return of birds and other species along the Pacific Flyway and builds on the environmental success in the Sacramento Valley, where collaborative partnerships between scientists, conversation groups, agencies, and landowners have resulted in farms, refuges and managed wetlands providing essential habitat for waterfowl and shorebirds.



Recharges precious groundwater consistent with state policy recognizing that “sustainable groundwater management in California depends upon creating more opportunities for robust conjunctive management of surface water and groundwater resources. Climate change will intensify the need to recalibrate and reconcile surface water and groundwater management strategies.” (Water Code §10720.1)



Helps implement California’s Biodiversity Initiative and Executive Order B-54-18 by “managing and restoring natural and working lands and waterways” within the floodplain and providing a model that may be applied elsewhere in the state.



Provide nourishment, spawning and safe rearing and migration for salmon as learned from the reconnection of Butte Creek with the floodplain in Butte Sink and Sutter Bypass.



Utilizes regional conservation investment strategies that encourage voluntary regional planning processes designed to help California’s declining and vulnerable species by protecting, creating, restoring, and reconnecting habitat that will contribute to species recovery and adaptation to climate change and resiliency (i.e., the Central Valley Habitat Exchange (<http://cvhe.org/>)).



Harmonizes water uses for the environment and farming by providing an ecosystem water budget that serves ecological values in a way that is complementary to other water uses in the region (See [PPIC Report](#)).



Implements and improves dynamic conservation strategies designed to create, retain and enhance habitat in temporary and adaptable ways, which will reinforce the value of floodplains and help species persist in a changing world. Developing and deploying dynamic conservation strategies is especially important for migratory species—both birds and salmon. Dynamic conservation strategies will become increasingly important for biodiversity conservation, especially as a means of facilitating adaptation to climate change and its concomitant variability and extremes, such as extended drought.

