

# **Featured Projects**

LASTING STATEWIDE BENEFITS FOR WILDLIFE, FLOOD SAFETY, CLIMATE RESILIENCY, WATER CONSERVATION, AND MORE

# **Hamilton City**

A New Model of Restoration that Boosts Flood Safety



The Hamilton City project serves as a model for joint flood protection and habitat restoration across the state and nation. It is the first riparian restoration in U.S. Army Corps of Engineers history.

Located near the 3,900acre Upper Sacramento River

State Wildlife Area and the more than 10,000-acre Sacramento River National Wildlife Refuge, the project site supported orchard crops for over 100 years. The area is prone to seasonal flooding, and past high-water events regularly threatened the nearby, economically disadvantaged community of Hamilton City. Town residents had to evacuate six times since the 1980s.

In 2000, the Army Corps built a 6.8-mile setback levee that reconnected 1,480 acres of floodplain to the Sacramento River. In 2016, River Partners began work on the first phase of restoration, planting riparian forest, scrub, oak savanna, and grassland habitats. River Partners will begin restoring an additional 500 acres in 2021.

This first-of-its-kind project provides the Hamilton City community with flood protection and restores critical habitat for native birds, mammals, and endangered salmon.

#### **Bear River**

Permanent Flood Protection. **Novel Ecosystem Restoration** 



Setback levees are an effective, sustainable alternative to traditional levee systems. When a levee is "set back" from a river, it permits natural meander and inundation of a floodplain during high-water events. Natural flooding on the floodplain reduces pressure on levees and downstream

In 2005, local agencies began work on a setback levee project along the Bear River, a tributary of the Feather River, to protect Yuba City and Marysville from floods. River Partners designed and implemented an innovative green-infrastructure flood safety and habitat-renewal plan incorporating a range of dynamic plant communities, from open grasslands to shrubby savanna to dense riparian forest. We transplanted native elderberry growing within the levee footprint throughout the restoration site. We constructed a swale to help displaced fish find their way back to the river after flood events. A portion of the site was restored specifically for threatened Swainson's hawks. Hawks are often seen nesting in the restoration site and foraging over the restored grasslands and shrublands.





(Left) Locally hired field staff plant native vegetation along the Sacramento River near Hamilton City, the residents of which had to evacuate six times since the 1980s due to flooding. (Right) Restoring floodplains represents a powerful model for simultaneous flood and habitat protection.



Acres Restored + 500 More in 2021



194,000









(Left) Bear River restoration site in 2006, just before planting. (Right) Bear River site in 2012, a fully functioning ecosystem. The multi-benefit project improves public safety, restores the environment, enhances the local community, and provides a model for similar efforts.









## San Joaquin River National Wildlife Preserve

Living Laboratory Brings Back Life to San Joaquin Valley



Public safety and wildlife recovery are important goals that can exist on the same landscape. At the San Joaquin River National Wildlife Reserve. River Partners designed and restored wildlife habitat, and improved flood safety at a scale never before seen in the San Joaquin Valley.

In 1997, heavy storms caused historic flooding and levee failure throughout the region, inundating thousands of acres along the San Joaquin River south of the Delta. After the disaster, the U.S. Army Corps of Engineers began promoting "non-structural alternatives" to levees to reduce impacts from future floods. Many landowners sold their floodprone farmland for conversion back into habitat, creating an extensive, regional living laboratory for floodplain restoration.

The roughly 7,000-acre reserve gave River Partners the opportunity to design novel, landscape-level habitats such as vegetated levees, elevated mounds that provide refuge for animals during flood events, seasonal floodplain basins, and floodplain meadows. The unique landscape we created at the refuge allows for scientific exploration of pollinator habitat, invasive-species management, floodplain foraging habitat for salmonids, climate change adaptations, and a myriad of other topics critical to our understanding of successful wildlife recovery and floodplain management.





600,000











(Top) River Partners restored our first 800 acres of habitat at the San Joaquin River National Wildlife Refuge in 2004 (new plantings pictured north of the river). (Bottom) In 2006, we restored an additional 1,200 acres, including 8 miles of levee slopes and over 30 mounds to provide refuge for endangered mammals during flood events (flooding in 2011 pictured).

### **Panorama Vista Preserve**

#### A Natural Respite Among Industry



Agricultural and industrial development along the Kern River transformed this once productive habitat into a barren landscape occupied by a few tenacious riparian trees. Since 2008, River Partners and the Kern River Endowment Holding Company (KRCE) have expanded

the footprint and density of the

riverside habitat, planting more than 57,000 drought-resistant native trees, shrubs, and vines.

The 935-acre preserve straddles both sides of the Kern River in Bakersfield and is a popular destination for the public. With KRCE, community leaders, and volunteers, River Partners restored two unique vegetation communities across the preserve. The lower terrace supports typical riparian forests and shrublands dominated by cottonwoods, willows, elderberry, and relict stands of threatened native western sycamores. The upper terrace, which is about 10 feet higher in elevation, supports a salt-brush scrub community and relict stands of endangered Bakersfield Cactus.

In 2021-22, River Partners augmented 50 acres of existing habitat with milkweed and other pollinator-friendly plants to support recovery of the western monarch butterfly.

The preserve is the home of Gordon's Ferry, one of the first ferries that allowed travel between Northern and Southern California via the Central Valley. Today, volunteers and grant-funded programs bring schoolchildren from neighboring communities to the preserve to learn about the natural history of the site and cultural history of the region.





(Above) In total, River Partners installed roughly 35,000 native trees and plants, provided jobs to over 20 California Conservation Corpsmembers, and offered numerous volunteer opportunities to area students and residents to enhance their local environment.



cres Restored 50 Acres for



35,000+



River Miles Restored



Priority Species Supported



Miles of Trails



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