# The Eel River Delta Restoration

August 2014

The Eel River was once one of the largest salmon producing rivers in California.

Recovery of Eel River salmonid stocks can have a significant influence on the regional fishing economy of California's north coast.

Approximately 60% of the estuary has been lost due to the construction of levees and dikes, and only 10% of the salt marsh habitats remain.

# Salt River Ecosystem Restoration

**Project Phase 1 - Tidal Marsh Enhancement**

**Overview**

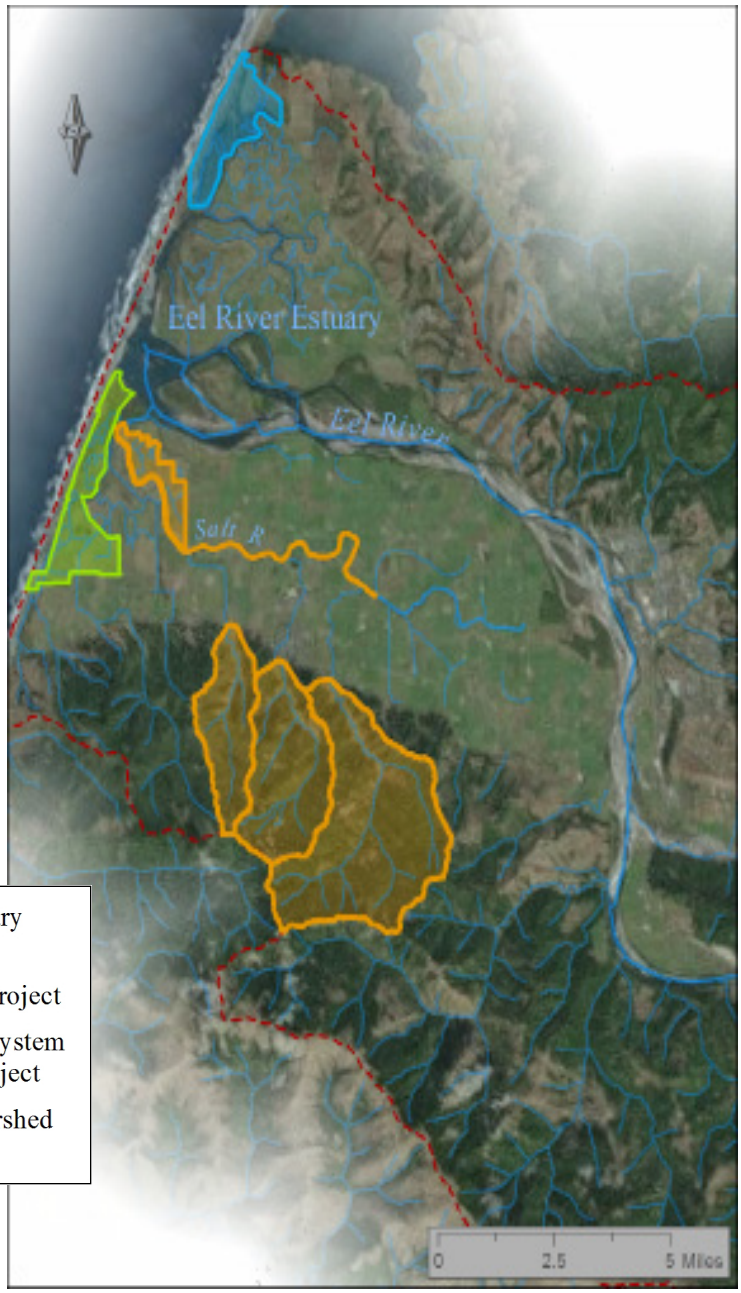
The Salt River Ecosystem Restoration Project includes four key components; 1) tidal marsh enhancement; 2) Salt River channel restoration; 3) upslope sediment management, and; 4) adaptive management planning. The tidal marsh enhancement component to the Salt River Ecosystem Restoration Project serves two functions – to assist in the hydrologic and geomorphic function of the Salt River for flood alleviation, and to provide habitat to benefit Pacific salmon, migratory waterfowl, Tidewater goby, Green sturgeon and scores of other species that once flourished in the Eel River Delta.

In an effort that has taken over 30 years, numerous partners have worked together to reconstruct a 330 acre tidal wetland now known as the Salt River Unit of the Department of Fish and Wildlife's Eel River Wildlife Area. Restoration efforts included reconstructing and enlarging 2.5 miles of the river channel in the lower Salt River. Over three miles of internal slough networks were excavated across 330 acres of a former organic dairy ranch suffering from frequent inundation and low productivity. In the fall of 2013, the newly constructed restoration site was opened to receive water from the Eel River and the Pacific Ocean for the first time in over 100 years.

*Hiking trails. Photo Dave Erickson*

**Partners**

Humboldt County Resource Conservation District, State Coastal Conservancy, State Water Resources Control Board, U.S. Fish and Wildlife Service, California Coastal Commission, Department of Fish and Wildlife, GHD, Inc. Ducks Unlimited, the City of Ferndale, NOAA Fisheries, Regional Water Quality Control Board, Western Rivers Conservancy, and, most importantly, more than 40 private landowners!




Eel River Estuary Preserve
Ocean Ranch Project
Salt River Ecosystem Restoration Project
Eel River Watershed Boundary

## Project Goals

The large 330 acre tidal wetland restoration component created a succession of biologically rich and diverse tidal wetland habitats, including transitional wetlands and adjacent uplands as part of a sustainable estuary system.

## Conservation outcomes

Monthly fish surveys began in March of 2014. As of July, an impressive assemblage of fish have been sampled from former pastures, including 40 juvenile Coho, 6 juvenile Chinook, 375 tidewater goby, and several other species of estuarine fish. A rapid utilization by waterfowl and shorebirds has been observed since project completion. Eelgrass and Lyngbye sedge are also recruiting rapidly into the newly excavated channel areas. It is apparent that newly constructed habitat has been immediately utilized by desirable vegetation, fish, and wildlife species.

## Timeline

The estuary component of the Salt River Ecosystem Restoration Project began in March 2013 and was completed in October of 2013. Additional phases, including more miles of Salt River channel excavation and restoration, continue at this time, and for the foreseeable future.

## Cost

Phase 1 (estuary) cost: About $8 million
Phase 2 (additional channel) About $5 million

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NOAA
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE

Humboldt County
RESOURCE
CONSERVATION DISTRICT

CALIFORNIA FISH PASSAGE FORUM

Pacific Marine & Estuarine Fish Habitat Partnership