August 2014

The Eel River Delta Restoration

Eel River Estuary Preserve

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.

Overview

Historically a network of extensive tidal marshlands and dunes, today the Wildlands Conservancy's Eel River Estuary Preserve encompasses an assortment of environments including tidal marsh, dunes, agricultural land, estuarine, and freshwater ponds that provide diverse habitat for a complex of species. Wetlands are one of the most productive ecosystems on earth, and with less than 10% of California's wetlands remaining, this restored wetland habitat will dramatically increase the abundance and diversity of species in the Eel River delta. Restoring the Eel River Estuary Preserve will provide abundant opportunity for enhancement of estuarine and tidal marsh habitat and the fish, wildlife, waterfowl and rare plant species that are dependent on these habitats.

Partners

The Wildlands Conservancy, CalTrout, GHD, California State Coastal Conservancy, Kamman Hydrology & Engineering Inc., H.T. Harvey, LACO, Roscoe and Associates, California Department of Fish and Wildlife

Project Goals

The restoration project on The Wildlands Conservancy's Eel River Estuary Preserve seeks to restore salmon rearing habitat, riparian function, water quality, and fish passage, while creating a mosaic of pasturelands and natural landscapes to ensure that the Preserve once again functions as an important nursery and habitat for native fish, wildlife, and waterfowl species. The project will identify, protect, and enhance agricultural uses such as livestock grazing consistent with public access improvements and habitat restoration. The restoration of the Preserve will reduce the impacts of climate change and sea level rise by enhancing estuary functions and promoting dune stability through enhancement measures.

Recreational uses of the Preserve will also be enhanced to allow visitors and educational programs to experience the biological wealth of the Preserve.





Conservation outcomes

A portion of the Preserve's lands will be returned to their historic function as an extensive network of slough channels draining tidal marsh, seasonal marsh, and freshwater runoff from **Russ Creek and Centerville** Slough to support salmon rearing. These wetland areas will act as rearing habitat for coho, steelhead, and Chinook salmon, with a newly planted native hardwood and conifer riparian corridor along Russ Creek and Centerville Slough.

Since the estuary currently has limited access to salmon rearing habitat within creek and tidal slough channels, the restoration is designed to increase salmon rearing habitat for out migrating juveniles in the Eel River delta. The current tide gates prevent fish passage due to high water velocity

during their open periods and a properly designed gate will allow fish to access the inboard wetland habitats. In the springtime, fish access to rearing habitat into Cutoff Slough, a restored Centerville Slough, as well as smaller tidal creek channels will also be enhanced by designing a properly sized and style of tidegate to replace the current top hinged tidegates at the mouth of Cutoff Slough.

Monitoring

Monitoring will consist of water quality, conductivity, temperature, and pressure, as well as fish population counts pre and post restoration.

Timeline

Completion of the design phase of the project is anticipated for 2016.

Cost

The project has been funded by two grants, a CDFW Fisheries Restoration Grant for \$700,233 and a grant from the State Coastal Conservancy for \$300,000.









