Humboldt County Resource Conservation District Celebrates Milestone in Estuary Restoration

In October, the Humboldt County Resource Conservation District (RCD) announced completion of the first phase of the Salt River Ecosystem Restoration Project (SRERP). With the removal of three coffer dams, the benefits of a project nearly two decades in the making began to add up almost as quickly as the waters began to flow into the restored lower section of Salt River and a newly created 300-acre tidal marsh area.

Though designed to address flooding impacts on the southern side of the lower Eel River estuary, the project is also expected to have substantial benefits to the whole Eel River ecosystem, including imperiled native fish. For example, while the new tidal area will help maintain the width and depth of the Salt River channel, it will also enhance rearing habitat and migration conditions for coho and Chinook salmon, steelhead and coastal cutthroat trout.

In the late 19th century, the Salt River carried sea-going ships up to the docks at Port Kenyon. As the watershed was reshaped with levees and dams to ‘reclaim’ estuaries and wetlands for agricultural use, its ability to carry water and sediment rapidly diminished. The conflicts between landowners trying to secure the productive value of their lands and shippers came to a head in a historic legal battle at the turn of the 20th century.

The Russ family dammed a slough tributary to the Salt River to keep their land drained. Public officials sued to force removal of the dam. The public interest finally prevailed when the California Supreme Court ruled in 1901’s People v. Russ that “(d)irectly diverting waters in material quantities from a navigable stream may be enjoined as a public nuisance. Neither may the waters of a navigable stream be diverted in substantial quantities by drawing from its tributaries...If the dams upon these sloughs result in the obstruction of Salt River as a navigable stream, they constitute a public nuisance.” People v. Russ (1901) 132 Cal. 102 (64 P. 106.)

The Russ decision is cited in the famous Mono Lake case as an early instance of California courts’ recognition of public trust values—in this case, functional waterways. While the case was won, the effort to keep the Salt River flowing and actually navigable failed—at least for the century now past.

Agricultural uses and heavy upslope logging led to a lot of erosion, exacerbating the inherently highly erosive nature of this landscape. Excess sediment filled stream channels, further reducing the watershed’s capacity to drain flood waters to such an extent that, by the turn of the 21st century, even a few inches of rain led to floods threatening homes and property.

As RCD watershed-coordinator Doreen Hansen explained on KHSU’s EcoNews Report (www.yournec.org/econewssreport, November 7 show) the need to address these problems actually led to the creation of the RCD. The RCD is an independent public agency formed to help landowners with a watershed-scale, cooperative approach. Thanks to the vision of the RCD’s founders, the organization’s ability to secure funding, and above all its staff’s tireless community outreach, the RCD was finally able to excavate the old Salt River channel.

That work started this spring in May 2013. In just a little over five months, slightly over two miles of setback berm were built, two miles of the lower Salt River channel were restored, and the 300-acre tidal marsh area constructed. As work on the first phase started to wrap up, the next phase began, removing the vegetation choking the channel upstream.
Though the SRERP has restored the Salt River’s historic channel, there’s no question of leaving the Salt to meander across the Eel River floodplain. “You don’t just make it and leave it,” said the RCD’s Hansen. “It’s going to be a highly managed system. We want it to stay the same as we made it.”

Fisheries scientists emphasize the importance of estuaries and off-channel habitat as key to the feeding success of young salmonids. Providing areas for young Chinook, coho, and steelhead to feed up before they enter the ocean may be one of the most important things we can do to improve their chances of coming back as adults.

North Coast fisheries would benefit from more projects like this one, and the City of Arcata’s McDaniel Slough restoration project on Humboldt Bay. As sea level rise and land subsidence combine to increase already-marginal lands’ vulnerability to saltwater intrusion, floods, and extreme weather events, the conservation value of restoring highly productive—and indeed protective—saltmarsh, wetland, and estuaries come to exceed the diminishing value of declining agricultural productivity.