

Fee-Simon Tidal Wetland Restoration

Clatsop County, Oregon



from top: Backwater channel network reconnects to river's tidal exchange after levee removal; Aerial view of restoration site

The Columbia River has changed radically over the last 100 years, and today the system can only support a fraction of the once-mighty populations of fish such as salmon and steelhead that split their lives between freshwater and the open ocean. Since 1974, the Columbia River Estuary Taskforce has been working to protect and restore the estuary's vital habitats and functions. Biohabitats was contracted to restore the Fee-Simon wetland by breaching the existing levee

Fish passage, floodplain connection, and tidal processes are restored to an important 46-acre lower Columbia River wetland preserve.

in five locations and re-connecting the existing backwater channel networks to the South Fork Klaskanine River, restoring the daily natural tidal processes that were eliminated by the levee.

One of the challenges for the salmonids that breed in that river is the flat, open structure of the channel, with water that moves uniformly and rapidly through the system. To improve the fish habitat, Biohabitats placed large woody debris into the river to create refuges for juvenile fish and pools of slow-moving water with rich foraging opportunities. Perhaps most importantly, restoration brought the floodplain and isolated wetlands back into contact with the river's main channel.

Biohabitats' responsibilities included project planning and scheduling, sequencing and designing methods for the construction, erosion and sediment control, excavation, installing large woody debris, and overseeing the replanting. This project had a wide array of energetic project stakeholders, including the Natural Resources Conservation Service, and it was the result of years of permitting and planning. The final construction schedule was highly compressed, requiring seamless coordination and strong project leadership.

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