

Sterling Pond and Josh Ames Structure Ecological Restoration Design-Build

Larimer County, Colorado



from top: River after dam removal;
Removal of the dam

Throughout the early 20th century, Colorado's Cache la Poudre River was heavily manipulated for irrigation and mining, particularly in the Fort Collins area. Today, the City of Fort Collins is taking steps to restore flows, fish passage, and ecological function to the river.

After working with the City to assess its natural areas and identify opportunities for restoration, Biohabitats implemented the restoration of this priority site: along a 2,000 linear foot reach of the Poudre that had been disconnected from its floodplain by a high berm that was originally constructed to protect an adjacent gravel pit. With mining operations long since completed, the pit had become a pond that offered habitat but did not meet its ecological potential in terms of ecosystem processes. In separating the river from its floodplain, the berm diminished the river's ecological

A landscape scarred by mining and damming is transformed into a vibrant wetland habitat and a more fully functioning river and floodplain.

function and value by reducing the potential for overbank flooding. To make matters worse, a defunct, abandoned, concrete diversion structure for irrigation was located just downstream, creating a barrier to natural ecological and physical processes.

Biohabitats' approach to this design-build project involved three key strategies: widening the riparian zone along the Poudre, creating additional shallow wetland habitat in the pond, and working with The Colorado Water Trust to remove the abandoned dam.

Biohabitats and our subcontractor, Budhoe Backhoe, lowered the steep berm on the river bank and placed the excavated material in the adjacent former gravel pit pond to create a mosaic of riparian woodland, wet meadow and emergent wetland.

Following the dam removal, Biohabitats restored the channel to recreate a pool and riffle system that offers improved aquatic habitat and fish passage and allows for better sediment transport. Using the sediment from behind the dam, Biohabitats also created benches along the banks, to not only restore a more natural channel width, but also to provide additional lateral connectivity and improved riparian habitat essential to insects, fish, birds, and other wildlife. The project is an excellent example of how the City, Biohabitats, and multiple stakeholders, including local and state non-profit organizations, were able to collaborate to leverage the size and benefits of the ecological outcomes.

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