

SOUTHERN UTE INDIAN TRIBE

Rock Creek III, IV & V, and Ignacio Creek Stream Restoration Design-Build

La Plata County, Colorado



Sequential phasing upstream to downstream accommodated funding sources and provided opportunities to modify and improve restoration techniques including channel realignment, bank stabilization, habitat improvements, and revegetation.

The effects of overgrazing near southwestern Colorado’s Rock Creek resulted in major erosion, with banks up to eight feet high in some places. Biohabitats has worked with the Southern Ute Indian Tribe to address this problem through a series of four projects along the creek.

The Rock Creek III project combined the stabilization of 4,000 feet of stream with the creation of riparian habitat for wildlife. The design approach involved laying back vertical banks, creating bankfull benches, installing toe protection and lowering the elevation of point bars to accommodate high flows.

The Rock Creek IV project reach included large cobble

substrate material as opposed to sand. For this project, the approach involved using sod mats from the inside meander to create a bankfull bench on the outside meander. The toe of the outside bank was stabilized with coarse substrate material. Riffle enhancements, pools, and root wads were used to improve aquatic habitat. Revegetation, which was installed by tribal workers and local volunteers, included container-grown cottonwoods, willows, and other riparian shrubs; willow stakes; cottonwood poles; and bare-root riparian shrubs.

Conditions along the Rock Creek V project reach were similar to those of the other projects. Geomorphic

assessments of this 4,000 linear foot reach were used to design the restoration of 13 specific sites along the reach. As with the other project reaches, Biohabitats prepared wetland permits, collected baseline vegetation conditions, and developed a planting plan to restore the riparian buffer. Biohabitats also provided construction oversight.

Biohabitats also worked with the Tribe’s Water Quality Department on the restoration of nearby Ignacio Creek. Ignacio Creek, approximately 5,000 linear feet of stream was restored on this project which involved site investigations, stream restoration design, selection of appropriate native species (including willow cutting and preparation), collection of soil samples, and oversight of construction and

planting activities with tribal workers and volunteers.

Sequential project phasing accommodated funding cycles and provided opportunities to modify and improve restoration techniques. As with the Rock Creek reaches, this project involved site investigations, selection of appropriate native species (including willow cutting and preparation), collection of soil samples, stream restoration design, and oversight of construction and planting activities with tribal workers and volunteers.

SERVICES

- Inventory and Assessment
- Design-Build
- Permitting
- Construction Management
- Project Management
- Public Outreach

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ecological restoration
regenerative design*



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