

Hotchkiss Demonstration Project

Visit Hotchkiss, Colorado along the North Fork of the Gunnison River to see a 1.5-mile rehabilitation project that improved fish habitat and improved in-stream flows.

What was done and why?

An existing irrigation diversion was reconstructed using a shallow rock structure and including a permanent headgate to improve water delivery efficiency. The diversion structure has a sufficiently low profile to allow the upstream migration of fish and safe passage of recreational boats while creating just enough backwater to divert a full decree of irrigation water. Also the new concrete headgate can meter water at the point of diversion thereby reducing waste and increasing in-stream flows. No longer does an annual temporary gravel dam redirect the entire river into the ditch and return the unallocated portion of the flow to the river further downstream. Channel disruption associated with the temporary gravel dam has been eliminated, thus protecting fish habitat and improving water quality. The river channel downstream of the diversion structure was consolidated from a braided stream system into a new, single thread channel. Banks were stabilized with cottonwood and willow root wads. Lunkers, or large pieces of wood under which the river can flow, were incorporated into the riverbank to provide resting habitat for fish and cover from predators. Random boulder clusters in the channel not only provide further fish habitat, but also double as "play holes" for kayaks and rafts. Old dikes within the river's historic floodplain were removed, thus increasing the river's capacity to spread floodwaters across areas of newly planted native vegetation. As the riparian vegetation grows, it will promote the deposition of sediment on the floodplain.

Who was involved?

The North Fork River Improvement Association initiated the project and promoted collaboration amongst a long list of partners including: Delta County, Delta Soil and Water Conservation District, Colorado Department of Transportation, Colorado Division of Wildlife, Natural Resources Conservation Service, U.S. Army Corps of Engineers, Curry Construction Sickles Construction, Mesa State College, and local landowners. Funding was obtained from a variety of state and federal programs, foundations, or businesses such as Bring Back the Natives, Colorado Smart Growth Regional Partnership Initiative, Resources for Community Collaboration, Colorado Soil Conservation Board, Colorado River Water Conservation District, FishAmerica Foundation, General Service Foundation, National Park Service - Rivers, and Trails Program, Maki Foundation, Colorado Wildlife Heritage Foundation, Smith-McKnight Ditch Company, and Oxbow Mining Company.

Where can I see the restoration projects?

The project is clearly visible from the two bridges across the river in the Town of Hotchkiss, Colorado.

Why is this a model project?

Many groups worked together to make the project a successful demonstration project. The project has promoted increased wildlife activity and many people in the community now support continued restoration efforts. The Colorado River Water Conservation District and the US Geological Survey have joined in partnership with the North Fork Improvement Association to monitor this project for several years. The monitoring consists of annual measurements of 16 permanent river cross sections to measure rates of sediment erosion and deposition, density and diversity of riparian vegetation, water quality, and the efficiency of the irrigation diversion. The Colorado Division of Wildlife will perform a habitat evaluation study to determine the success of the fish habitat techniques. The North Fork River Improvement Association received an award in 2000 from the Wirth Chair in Environmental and Community Development Policy for its initiative in developing the restoration efforts along the North Fork of the Gunnison River. The Wirth Chair was created in 1993 within the Department of Public Affairs at the University of Colorado at Denver in honor of former US Senator Tim Wirth. The objectives of the Chair are to foster effective sustainable development strategies, policies, and programs that will strive to meet the needs of the present without compromising the ability of future generations to meet their own needs.

Who can be contacted about this project?

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New weir constructed as part of the Hotchkiss Demonstration Project



The riverbank adjacent to the property of a private landowner before project construction.



The riverbank adjacent to the property of a private landowner after project construction .