

Agriculture Benefits from Collaboration

BENEFITS

- Improved irrigation by increasing stream flows so that water can move more easily in low level conditions
- Reduced sediment in creek, greatly decreasing ditch company maintenance time and costs
- Reduced or eliminated creek bank erosion, providing access to livestock for watering
- Protection of human life and property
- Protection of ditch infrastructure
- Increased flood capacity and conveyance
- Improved habitat for wildlife and fish

COLLABORATING STAKEHOLDERS

- Left Hand Ditch Company
- St. Vrain Left Hand Water Conservancy District
- Left Hand Water District
- Boulder County
- City of Longmont
- Town of Jamestown
- Town of Ward
- Trout Unlimited Boulder Flycasters Chapter
- Private Landowners

PROJECT SPONSOR Left Hand Watershed Center



"As Colorado's population continues to grow, farmland is being converted to development and agricultural water is being sold or rented to municipalities," said Gregory Peterson, CAWA executive director. "It is imperative that we work with others to preserve agricultural irrigation water and that farmers and ranchers get involved in water planning."



OVERVIEW

Following the September 2013 epic flooding in Colorado, much of northern Colorado was devastated, including many farms and ranches. In Boulder County, farmers, ranchers, ditch companies, conservancy districts, environmental groups and other entities came together to rebuild. Six years later, the result is improved water flows, irrigation efficiency and improved environmental and recreational use of this water supply.





"(The 2013 flood) was the third flood I've seen come through here, but it was by far the most destructive,"

said cow-calf operator **Ron Sutherland**, Twin Lakes Ranch, Niwot, Colo., shown here with Jessie Olson, Left Hand Watershed Center Longmont, Colo. "I'm glad to see them come in and restore it."



Images courtesy of Moxiecran Media & Left Hand Watershed Center



This is one of several improved irrigation diversion structures. Note that the water level is higher, enabling water to easily run through the gate when it is opened. There also are boulders placed in front of the gate to decrease the amount of debris that goes down the ditch.

"The low flow channels sped up the water (in the creek), and when we get past the run-off and the river shrinks, the water is concentrated over several feet instead of ten to 15 feet, which enables us to get the irrigation water where it needs to go faster and more efficiently,"

said **Terry Plummer**, Left Hand Ditch Company, which provides irrigation water for 30,000 acres of farmland.



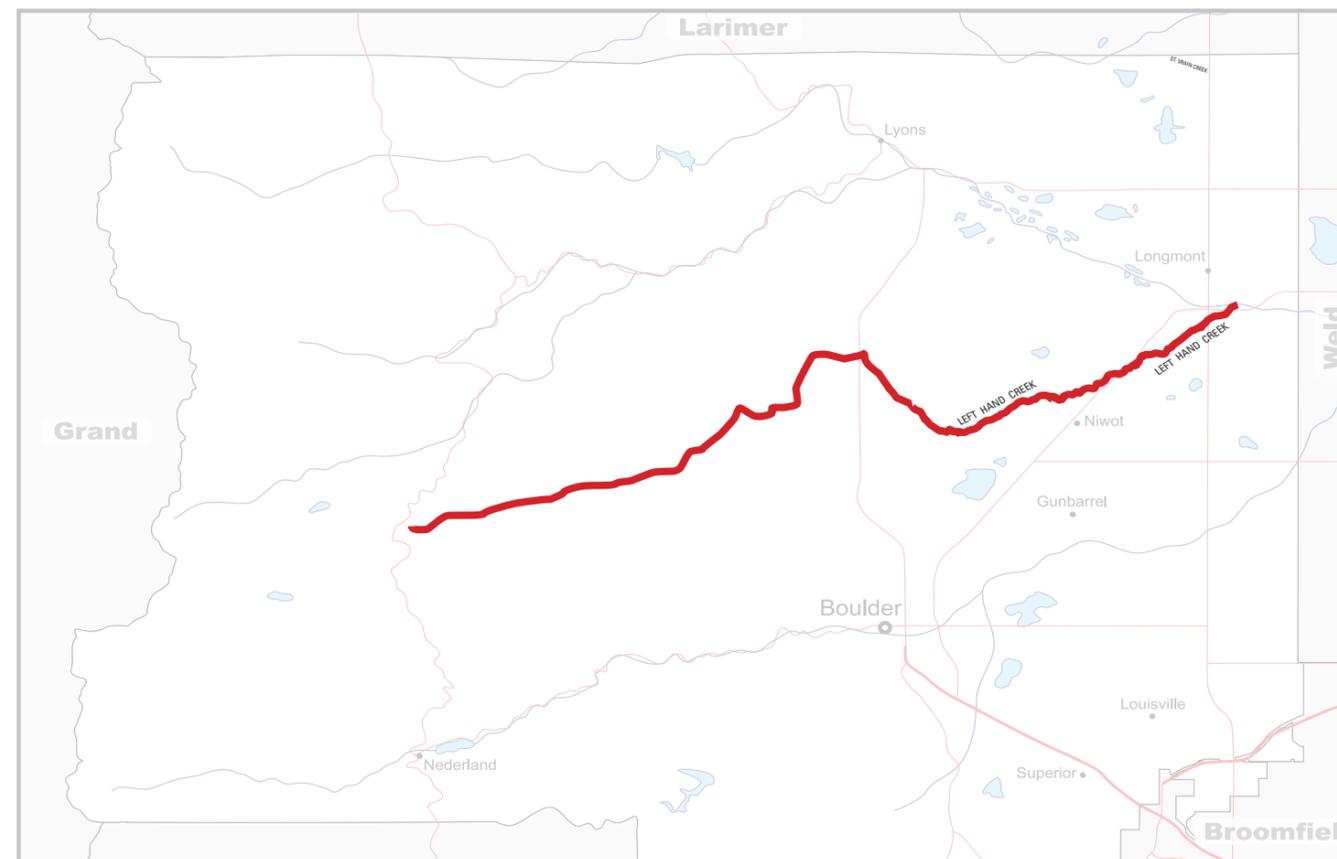
Previous to the project (left), the creek bank was very steep and washed out. Making it less steep and reseeded the slope (right) has eliminated erosion and made the water accessible to livestock.

PROJECT IMPROVEMENTS

- 30 participating landowners, mostly farmers and ranchers
- 37 in-stream structures improved or added, increasing water flow and decreasing labor for irrigators
- 12 acres seeded
- 4,702 linear feet improved
- 5,034 linear feet of bioengineered stream banks
- 7,963 willow and cottonwood live stakes planted

COST BREAKDOWN

\$63,017	management & administration
\$411,013	planning, design & permitting
\$384,922	construction oversight
\$1,572,347	mobilization, grading & earthwork
\$1,121,507	stabilization
\$178,259	debris removal
\$768,039	revegetation & bio-stabilization
\$562,282	other
\$5,061,386	TOTAL



PROJECT FUNDING BY SOURCE

90% Federal **10%** State **>1%** Private

PROJECT PLAN & IMPLEMENTATION

The Left Hand Project spanned five years from initial conversations among stakeholders to completion. Community meetings with stakeholders took place at the beginning of the project in 2013 and continued throughout the project. Here are some other milestones.

2013-2015	Development of Left Hand Creek Watershed Master Plan and preliminary cost estimates and concepts
2015-2017	Fund raising, including grant applications
Fall 2016-Winter 2017	Final design, permitting
Winter 2017	Contractors hired
Spring-Summer 2017	Construction
Ongoing	Grant reporting & project monitoring