

Stream Management Plan Grantee Project Summary

Ecosystem Restoration of Select Sites in the Kawuneeche Valley

Geographic Description:
Colorado River Basin:
North Fork Colorado Watershed

Size:
102 square miles

Project Homepage:
northernwater.org

Primary Contact:
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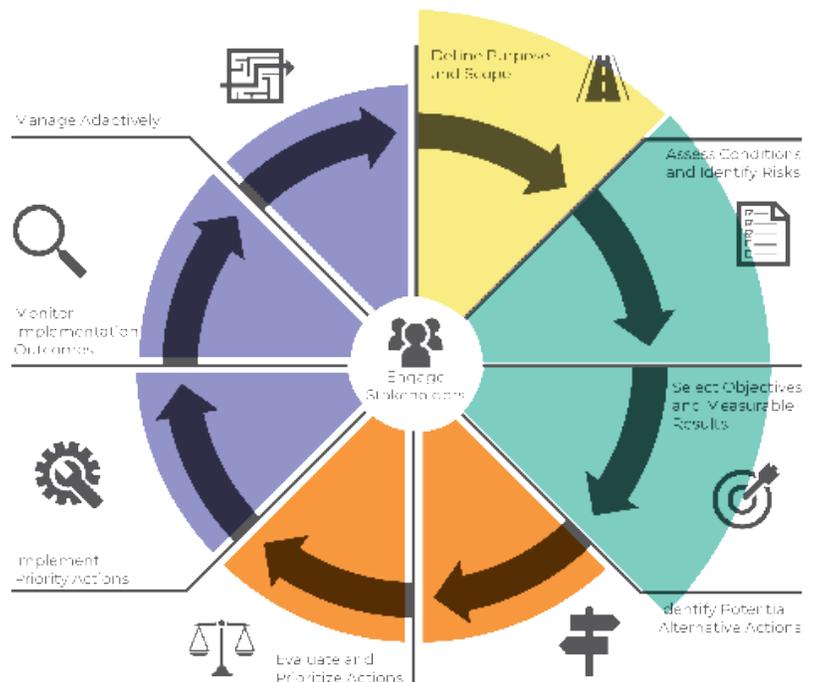
Project Timeline



Stakeholder Groups Involved in Planning Process:

●	Agricultural producers
●	Riparian landowners
●	Aquatic and riparian science
●	Environmental advocacy
●	Utilities or other water management
●	Recreation & tourism
●	Local government & land use planners

Current Planning Phase



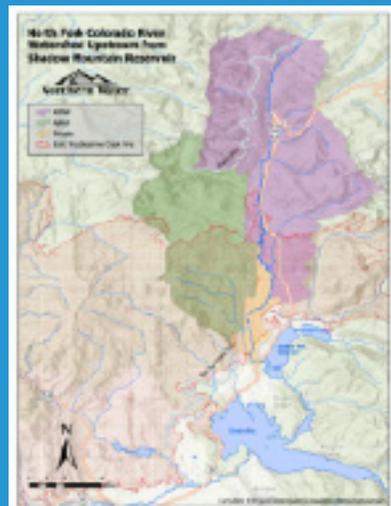
Project Goals

- Assess existing geomorphic, ecological, water quality conditions, and human dimensions relating to ecological restoration in the project area, including parts of the watershed affected by the East Troublesome Fire
- Complete feasibility analyses of the suitability of available restoration approaches throughout the watershed
- Identify and prioritize sites where restoration should be pursued

Overview

Geography:

The project is focused on geomorphological and ecological restoration of the riverine environment of the North Fork Colorado River (North Fork) watershed. Excessive sediment and nutrients enter Shadow Mountain Reservoir from the North Fork, and this will likely increase due to the recent East Troublesome Fire. While certain problem areas within Rocky Mountain National Park have been documented, conditions in much of the North Fork watershed are largely unknown, particularly within the burned area.



Users:

The Kawuneeche Valley Ecosystem Restoration Collaborative is a reactionary plan with a diverse stakeholder group representing agricultural users, municipal water use, industry, environmental and recreation stakeholders. The stakeholder group will bring diverse expectations of the plan, which will lead to multi-objective goals and projects.

Need for Planning:

There is broad agreement on the need for watershed-scale channel and riparian restoration, but the specific approaches and locations for interventions have not been identified. Furthermore, stakeholder and community perspectives on desired future conditions and acceptability of various interventions are unknown. This project addresses an urgent need for community resilience and strategic intervention to address the devastating effects of the East Troublesome Fire.

Approach

In 2020, the Kawuneeche Valley Ecosystem Restoration Collaborative (Collaborative) formed to explore opportunities for ecosystem restoration in the Kawuneeche Valley and to develop a phased implementation plan. The Collaborative is comprised of entities with jurisdiction over portions of the project area, including: National Park Service (RMNP), US Forest Service (USFS), Grand County, Town of Grand Lake, Bureau of Reclamation (Reclamation), Northern Water, Colorado River Water Conservancy District (CRWCD), and The Nature Conservancy (TNC). The Project Team also includes a group of interdisciplinary faculty and scientists from Colorado State University (CSU), working in a technical advisory and consulting capacity, and the project will be one of applied ecosystem restoration rather than academic research. The Collaborative will complete the following tasks:

Geomorphic Assessment

The Collaborative will conduct a hierarchical geomorphic assessment of the North Fork watershed to characterize channel condition, delineate sources of excessive sediment, identify potential stressors, and outline opportunities to restore riverine function. This information will be used to help determine the suitability of available restoration approaches and provide baseline pre-treatment data sets to evaluate project effectiveness in the future.

Ecological Assessment

An ecological assessment will be completed to characterize the current status of riparian vegetation throughout the Kawuneeche Valley, identify areas where woody vegetation abundance and vigor has declined in recent decades, and identify abandoned ditches and drains on formerly private parcels that could be restored.

Water & Sediment Chemistry Assessment

A longitudinal analysis of total nitrogen and phosphorus in water and sediments along the mainstem of the North Fork and principal tributaries will be conducted to identify source areas for excessive nutrient inputs to the Colorado River and SMR.

Human Dimensions Assessment

The perceptions, values, interests, and goals of all stakeholders in the North Fork watershed are critical factors in assessing the feasibility and long-term success of restoration. To understand the socio-ecological context of potential restoration projects, key stakeholders and the general community will be engaged to identify shared interests and goals, as well as improve communication and decision-making.

Budget

Contributing Entity	Amount and Form of Match
CWCB Watershed Restoration Fund	\$73,550 cash
Rocky Mountain National Park	\$30,000 cash
The Nature Conservancy	\$30,000 cash
Northern Water	\$35,500 cash
Total	\$169,050



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