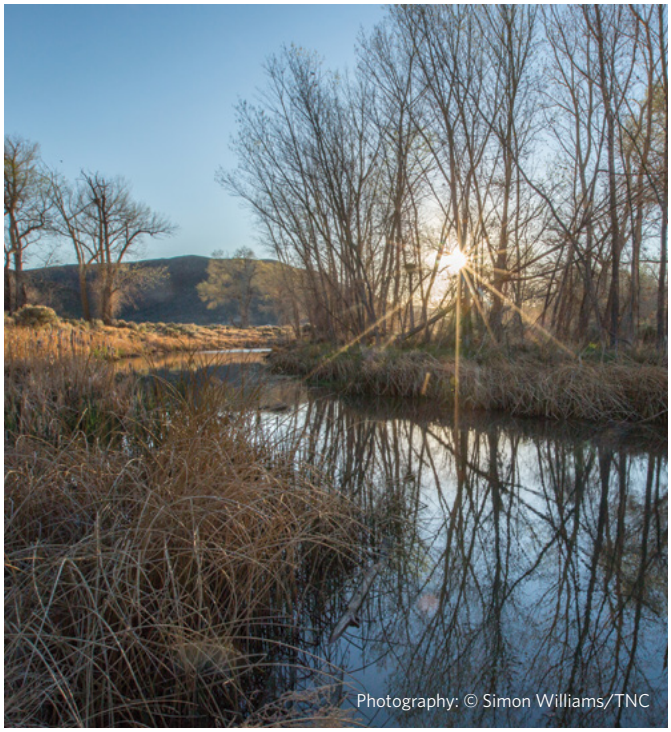


Photography: © Simon Williams/TNC

Truckee River Water Fund

OPTIMIZING CONSERVATION INVESTMENTS WITH THE RIOS MODEL

This study is funded by the National Fish and Wildlife Foundation, Desert Terminal Lakes Program, Truckee Meadows Water Authority, Northern Nevada Water Planning Commission, and The Nature Conservancy

Overview

The Nature Conservancy is leading a study that will engage key Truckee River watershed stakeholders to identify the most cost-effective investments in natural capital to achieve their objectives for enhancing and making more resilient, regional water supply and quality. Evidence suggests that coordinated stakeholder investment based on the best-available science can drive larger ecosystem services return on investment in a watershed. This study will serve as a foundational resource to enhance coordination across the range of organizations involved in protecting and restoring the watershed from the headwaters in Lake Tahoe and the Little Truckee River, through the city of Reno, to the terminus of the Truckee River in Pyramid Lake.

Maximizing the cost-effectiveness of watershed investments is essential in the face of constrained stakeholder budgets and the emergence of unprecedented threats to watershed health and ecosystem services productivity, including the risk of catastrophic fires and evidence that climate change is altering hydrologic patterns in the Sierra Nevada.

Objective: Establish a Water Fund

Our objective is to use the stakeholder engagement and natural capital model results to coordinate cost-effective investments in conservation activities in the watershed. The Nature Conservancy's past experience in other watersheds suggests that this study will inform science-based, more coordinated decision-making on water quantity and quality investments.

Process & Timing

The Nature Conservancy and the Truckee River Watershed Council will convene key stakeholders, including U.S. Forest Service forest managers, power and water utility managers, conservation groups, regulatory agencies, and others to gain consensus around a set of ecosystem service objectives related to water quantity and quality (e.g. reducing sediment and nutrient levels, increasing baseflows, groundwater recharge, reservoir maintenance, flood management).

Once these objectives have been identified, The Nature Conservancy will use a state-of-the-art modeling application that incorporates biophysical, social, and economic data to identify a portfolio of cost-effective conservation and restoration activities to achieve stakeholder objectives.

natural capital PROJECT

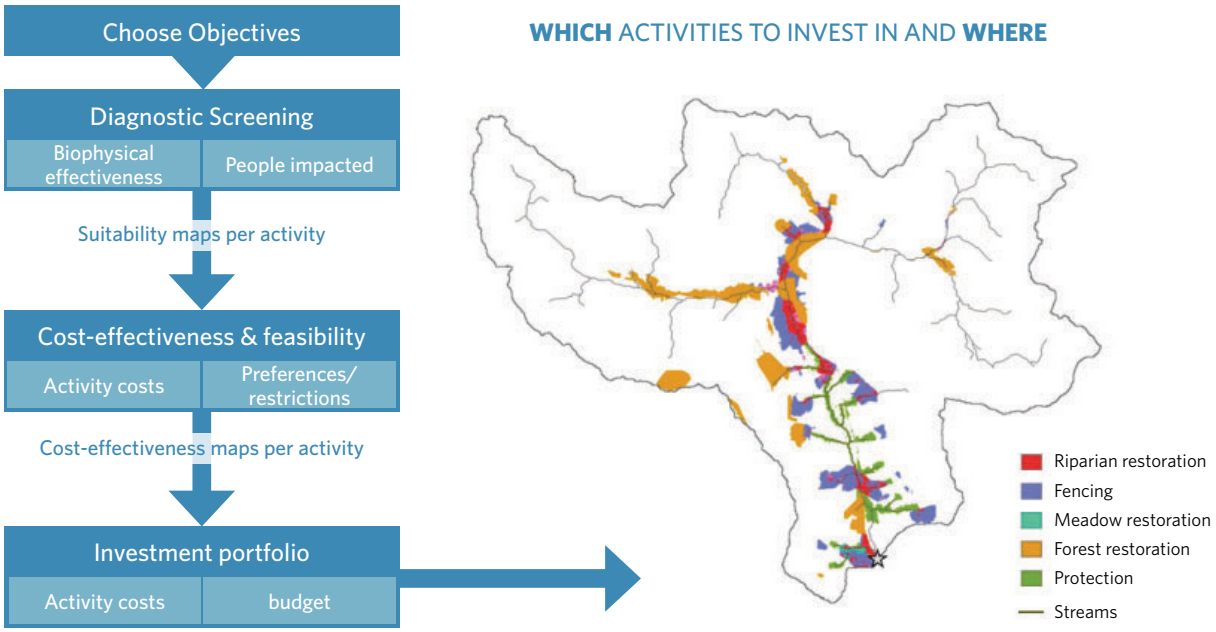
The Nature Conservancy
Protecting nature. Preserving life.

Truckee River Watershed Council
CELEBRATING 20 YEARS

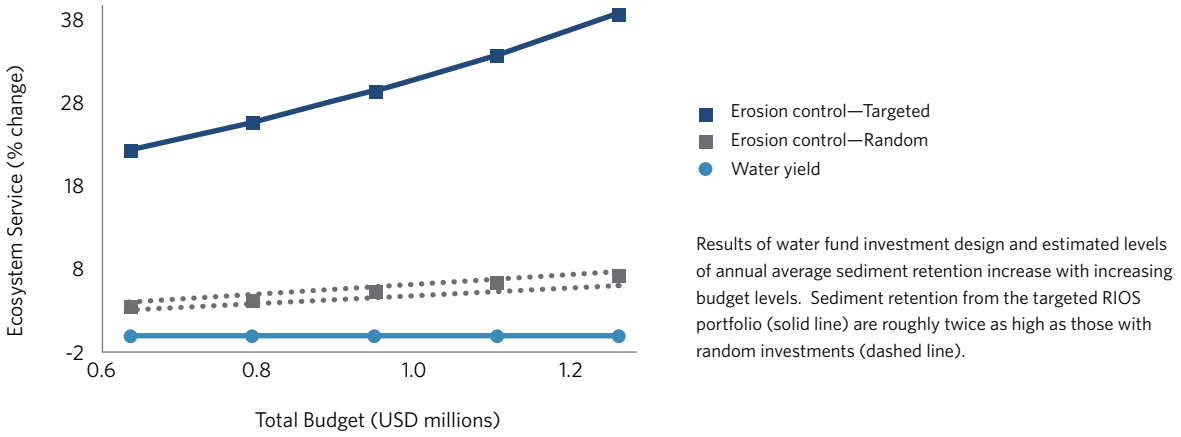
PRELIMINARY PROJECT TIMELINE

Action	Time Period
Stakeholder interviews	Spring 2015
First stakeholder workshop—develop common vision and consensus on objectives	May 2015
Initial model run using biophysical, social, and economic data and stakeholder input	Summer 2015
Second stakeholder workshop—explain model results and gather further input	Fall 2015
Revised model run to identify priority areas and conservation/restoration activities	Winter 2015
Third stakeholder workshop—explain results of revised model run	Winter 2016
Identify funding alternatives and complete model	Spring 2016

RIOS WORKFLOW



Flowchart showing the steps in the RIOS process for diagnostic screening and investment portfolio selection.



Results of water fund investment design and estimated levels of annual average sediment retention increase with increasing budget levels. Sediment retention from the targeted RIOS portfolio (solid line) are roughly twice as high as those with random investments (dashed line).

Contact: If you would like to be involved or provide support for the program please contact Mickey Hazelwood (mhazelwood@tnc.org, 775-322-4990) or Lisa Wallace (lwallace@truckeeriverwc.org, 530-550-8760).