

BUILDING RESILIENCE IN THE COLORADO BASIN

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**AMERICAN
RIVERS**



**TROUT
UNLIMITED**

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PROJECT TYPES

COLORADO RIVER RESILIENCE PROJECTS INCLUDE



Restoring forests, headwater wetlands, habitat, & riparian ecosystems



Improving agricultural practices, infrastructure, & opportunities for water-saving crops



Boosting urban, industrial, & agricultural water conservation and efficiency

The entire project lifecycle is a lot of work and crucial for success.

PROJECT LIFECYCLE

1

INITIAL DEVELOPMENT

- Bringing partners on board
- Site visits and meeting with partners
- Define goals and objectives
- Develop analysis and conceptual design



2

PLANNING & DESIGN

- Contract with consultant for survey and design
- Refine goals and objectives with stakeholders
- Obtain cost estimates
- Map out funding plan



3

FUNDRAISING & PERMITTING

- Develop final construction ready design plan
- Write and submit grants, apply for permits
- Complete pre-project monitoring
- Source materials



4

CONSTRUCTION & IMPLEMENTATION

- Select contractor via a competitive process
- Administer contracts and insurance
- Volunteer days and site visits
- Publicity and outreach



5

MONITORING & MAINTENANCE

- Post-construction survey
- Grant reports for funders
- Three years of post-construction monitoring
- Maintenance and follow-up



MUD CREEK - UTAH



Objectives

- Repair Streambanks
- Improve Water Quality
- Maintain grazing and livestock watering
- Improve fish habitat

Funding

- EPA 319
- Utah Watershed Restoration Initiative

Partners

- Utah Division of Water Quality
- Utah Division of Wildlife Resources
- Carbon Water Conservancy District
- Jensen Family







UNCOMPAHGRE MULTI-BENEFIT PROJECT



Partners:

- Ward Water Group/ local landowners
- American Rivers & Trout Unlimited
- Uncompahgre Valley Watershed Partnership
- Ouray County

Major Funders:

- CO Water Conservation Board
- Colorado River District
- Bureau of Reclamation (WaterSmart Environmental Water Resources Project Grant)

Project Objectives

- Stabilize headgate
- Improve ditch to improve water management and reduce costs
- Stabilize the river corridor; improve water quality; improve aquatic, riparian, and upland habitat; improve recreation
- Improve ability of users to manage high debris flows
- Attenuate flood flows and increase post-wildfire sediment retention
- Increase groundwater storage and filtration through floodplain recharge
- Improve the upper floodplain with pollinators and native species
- Ensure no added flood risk to residences & infrastructure







LESSONS LEARNED

- Timeframe to develop & implement projects – it's longer than you may think.
- Funding the full lifecycle of the project requires looking into many different sources of funding.
- Thinking big – can you combine elements to make a bigger project & access larger grants or have multiple projects in a watershed at the same time?
- Permitting – needs education and reform in some places, important but need to move faster.
- Workforce – to go bigger, we need more people to help on the ground
- Building trust among partners is crucial.



HELP US BUILD COMMUNITY TO SCALE UP
PROJECT WORK FOR RESILIENCE IN THE
COLORADO RIVER BASIN!

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Discussion:

What would be most helpful for scaling up the kind of project work that you do/ would like to do?