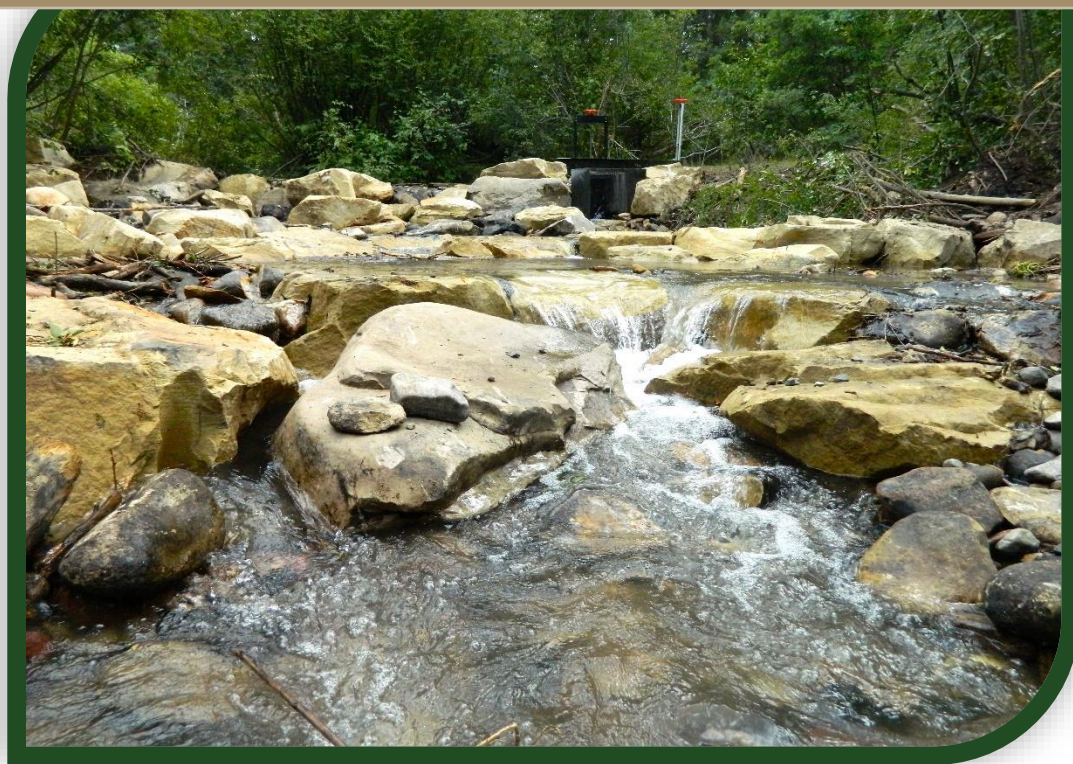


# 1<sup>st</sup> Progress Report

## Mancos River Habitat and Diversion Project

### Phase III



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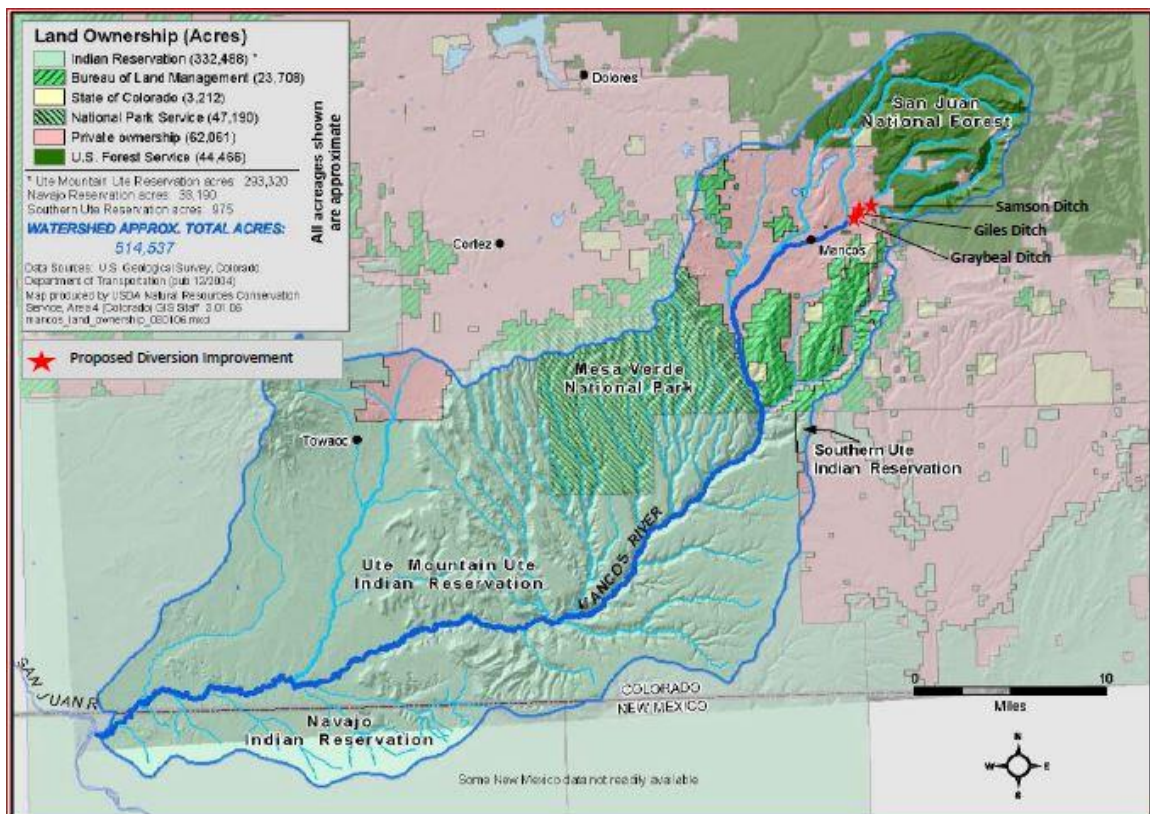
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## Introduction

The Mancos River Habitat and Diversion Project – Phase III is a multipurpose project building on and integrating the products of Phases I and II. Phase III will continue to implement the findings developed in the Mancos River Diversion Project- Phase I to improve the ecological and agricultural function of an additional 1.5-mile reach of the lower East Mancos River. In addition, Phase III will integrate existing data into an assessment of the resiliency of the Mancos River to support multiple values and uses, in light of a changing climate.

This multi-purpose project will complete two simultaneous efforts. One effort will physically improve the agricultural and ecological function of a 1.5-mile reach of the East Mancos River, by installing improved diversion structures at three irrigation ditch headings. The improved structures will save irrigators annual maintenance costs, while also allowing fish and sediment passage at higher flows, and promoting channel stability. The other effort will convene a collaborative process to integrate existing data into an assessment of the resiliency of the Mancos River in light of a changing climate. This stakeholder assessment will be useful to land owners and managers interested in where/how to invest resources to maintain/improve the value of the Mancos River for multiple uses into the future (Figure 1).

Figure 1 Mancos watershed and diversion locations.



Prior to approval of this WSRA grant support, many partners had already collaborated with and supported the Mancos Conservation District to lay the foundations for accomplishing these objectives. Among them are the Southwestern Water Conservation District, Mountain Studies Institute, Mesa Verde National Park, Trout Unlimited, the Ute Mountain Ute Tribe, the San Juan

National Forest, the Samson, Giles and Graybeal Ditches, MCD board members and staff, private landowners along the Mancos River (see Exhibit C for letters of support), and local volunteers. Objective 1 will implement designs produced with support from the Southwestern Water Conservation District under the Mancos Diversion Project grant to the Mancos Conservation District. Work on Objective 2 has already begun with a series of five Mancos River Restoration meetings facilitated by Mountain Studies Institute staff with Mancos Valley Watershed Group stakeholders between April and October 2015.

## Goals and Objectives

The objectives of the Mancos River Habitat and Diversion Project – Phase III are:

- 1) To further the efforts begun in the Mancos River Habitat and Diversion Project – Phases I and II to decrease the time and costs incurred in diverting irrigation water at 3 irrigation diversions, while also improving channel function and fish passage on the reach of East Mancos River stretching from the West Fork upstream to just above the Middle Fork.
- 2) To complete the effort begun by the Mancos Conservation District, Mountain Studies Institute and the Mancos River Watershed Group in 2015 to integrate existing data into an assessment of the resilience of the Mancos River to continue to meet multiple uses and values in the face of changing climate conditions.

## Tasks, Methods and Deliverables

### TASK 1 – Complete Mancos River Resiliency Assessment

Task 1 is to develop a Mancos River Resilience Report publication for stakeholder and public use. The Assessment, in a report card format, will outline current conditions and existing data on the Mancos River and identify areas of needed data and information. The purpose of this collaborative Mancos River Resilience Assessment is two-fold: 1) to compile the wealth of Mancos River data that currently exists within various entities and forms into one usable reference, and 2) assess the overall functional condition of the Mancos River through the lens of climate resiliency to inform future restoration strategies in light of a changing climate. The Assessment will be helpful in addressing private and public land managers concerns regarding where and how effort and resources can be invested in order to maintain or improve the resilience and value of the Mancos River for multiple uses (environmental, agricultural, municipal, industrial) into the future.

#### Method/Procedure

1. Host a full-day science workshop to
  - Complete follow-up of the October 1 data sharing meeting, and
  - Agree on Mancos River Resilience metrics.
2. Develop a Mancos River Resilience Report:

- a. complete an assessment of the current conditions based on existing data
  - b. develop a list of further information needed to assess resilience metrics
  - c. design, edit and publish a “Mancos River Resilience Report.”
3. Host a 2-hour stakeholder meeting in Mancos to share draft Mancos River Resilience Report to the public and invite feedback (1 hour presentation, with discussion).

#### **Deliverables**

One science workshop with notes summarizing results shared online; Mancos River Resilience Report publication (official title TBD) shared online, and 1 public community meeting hosted by Mancos River Watershed Group and Mancos Conservation District.

### **TASK 2 – Design Diversion Improvements**

Design improved diversion structures for the Graybeal, Giles and Samson Ditches.

#### **Method/Procedure**

- Southwester Water Conservation District funded the Mancos Conservation District Mancos Diversion Project grant request in 2015.
- Mancos Conservation District contracted Russell Klatt in September 2015 to produce construction ready designs in AutoCad for the Graybeal, Giles and Samson Ditches.
- Mancos Conservation District received and payed for the final designs in November 2015.

#### **Deliverables**

Construction-ready design drawings for new diversion structures at the Graybeal, Giles and Samson Ditches.

### **TASK 3 – Install Diversion Improvements**

Installation of the three diversion structures as designed in Task 2.

#### **Method/Procedure**

1. Purchase construction materials.
2. Hire local trucking company to transport materials from source to project site.
3. Provide construction staking and construction oversight
4. Hire large track excavator to install structures.
5. Site clean-up (smooth grade disturbed areas and excavated materials).

#### **Deliverables**

Three irrigation diversion structures installed at the Graybeal, Giles and Samson Ditches on the East Mancos River.

### **TASK 4 – Administer, coordinate, manage and report on the project**

Coordinate completion of tasks 1-4 by various partners, funders and Mancos Conservation District, as well as writing and circulating progress reports and final project report. Provide fiscal administration of the grant.

### **Method/Procedure**

Arrange meetings, liaison with funding agencies, track and document project progress, track match and invoices, prepare reimbursement requests, administer grant, write and circulate progress reports to funding agencies and MCD Board, liaison with watershed partners and stakeholders, contractors, ditch companies.

### **Deliverables**

Coordination of Tasks 1-4, progress reports every 6 months, and a final report documenting the methods, costs and outcomes of the project, including pre- and post-project photographs, and deliverables for each task.

## **Progress to Date**

### **Task 1 – Complete Mancos River Resiliency Assessment**

On September 15, 2016, Mountain Studies Institute staff convened the Mancos River Resilience Project Steering Committee for a meeting from 10 AM- 12 PM at the Mancos Conservation District Office, 604 Bauer Avenue, Mancos. Eight individuals attended, including 2 MSI staff, 2 MCD board members, 2 MCD staff, and 2 local volunteer resource experts. Topics discussed included the role of the steering committee, review of grant deliverables and October 2015 Science Meeting, the desired outcomes and agenda for the next Science Meeting, and the form, purpose, and resilience metrics for the “Resilience Report” (actual name TBD). The in-kind contribution of time toward the project totaled 8 hours. The group has scheduled a science meeting for December 1, 2016 at the Mancos Grange.

On June 18, 2016, Mancos Conservation District and Montezuma Land Conservancy co-hosted a workshop concerning Riparian Restoration and Livestock Management from 9 a.m. to noon. The event was open to the public and held on the Burk Ranch conservation easement located at the confluence of the Mancos River and County Road 39. The workshop was led by: Marty Moses, Private Lands Wildlife Biologist, Natural Resource Conservation Service; Paul Morey, Wildlife Program Manager, Mesa Verde National Park; Stephen Monroe, Hydrologist, National Park Service/Southern Colorado Plateau Network; Chris Rasmussen, EcoMainstream Contracting; and Jack Burk, land owner. Fifteen people attended this three hour workshop. Total in-kind contributions of time to the project were 90 hours.

### **Task 2 – Design Diversion Improvements**

Southwester Water Conservation District funded the Mancos Conservation District Mancos Diversion Project grant request in 2015. Mancos Conservation District contracted Russell Klatt in September 2015 to produce construction ready designs in AutoCad for the Graybeal, Giles and Samson Ditches. Mancos Conservation District received and payed for the final designs in November 2015.

### **Task 3 – Install Diversion Improvements**

The Graybeal, Giles and Samson Ditch diversions were all installed during the spring and summer of 2016. Figures 2 through 10 show each diversion before and after construction.

The initial site survey was conducted on May 31, 2016. MCD and NRCS personnel attended and contributed to this five hour survey. MCD staff conducted on-site inspections of each diversion between June 1 and June 23, 2016. NRCS completed the final inspection of the newly installed diversions on August 25. MCD staff completed As-Built surveys and drawings of each diversion from August 25-29, 2016. The time spent on these site surveys and inspections totals 79.5 hours of in-kind contribution to the project.

### **Task 4 – Administer, coordinate, manage and report on the project**

In July 2016, MCD contracted Ann Oliver to assist Gretchen Rank, District Manager, in managing this project. Ms. Oliver will track and document project progress and write and circulate progress reports every six months, as well as the final report documenting the methods, costs and outcomes of the project, including pre- and post-project photographs, and deliverables for each task to funding agencies and report on activities should the board request it. She will contribute to planning 2 - 3 meetings in support of Task 1 and will attend those meetings. She will provide support for match tracking and documentation, and will review reimbursement requests as needed. MCD contracted MSI to complete Task 1 and Keith Duncan to complete Task 3. To date two reimbursement requests have been submitted. This report is the first progress report to be submitted for the project.

Figure 2 Graybeal Diversion BEFORE (May 31, 2015).



Figure 3 Graybeal Diversion AFTER (August 15, 2016).





Figure 4 Giles Diversion BEFORE (May 31, 2016).



Figure 5 Giles Diversion AFTER.



Figure 6 Samson Diversion BEFORE (May 31, 2016).



Figure 7 Samson Diversion AFTER (August 25, 2016).

