



GRAND COUNTY

**WATERSHED
RECOVERY**

East Troublesome Fire Watershed Recovery

Water Resources and Agricultural Review Committee

August 24, 2022

Brian Murphy – Grand County Watershed Recovery Coordinator



Partnerships

Natural Resources
Conservation
Service

US Forest Service

Bureau of Land
Management

Colorado Water
Conservation
Board

Colorado State
Forest Service

Three Lakes
Watershed
Association

Middle Park
Conservation
District

Colorado River
District

And many other
federal, state, and
local partners

Outreach to Community

WATERSHED FIRE RECOVERY
June 2021 - East Sheet #5



EWP Project Design Moves Forward

Northern Water and Grand County both have consultants under contract to complete design and engineering work for projects identified through the USDA Natural Resources Conservation Service (NRCS) Emergency Watershed Protection (EWP) Program for the East Troublesome Fire. Only about 40 percent of EWP lands have been allocated thus far, making it necessary to proceed with phased implementation of EWP projects.



Northern Water and Grand County are currently focused on implementation of early warning alert systems, seeding and mulching of hillslopes that have high erosion potential, and debris management practices in areas with elevated risk of flooding or debris flows. While implementation of these projects occurs, consultants will continue to work on the design and engineering for additional treatment practices that can begin once additional funding from the EWP Program is allocated.

Construction Begins on Debris Boom at West Portal

Construction is in progress for a debris boom at West Portal on Grd and is expected to be complete by June 23. In addition, design work is completed for debris booms at Willow Creek Reservoir, with permitting and construction to begin in the fall. Along with debris booms, other debris management practices include seeding debris removal and sediment basins. These practices will help neighboring homes and businesses, mitigate impacts to recreation and important water delivery infrastructure.

Analysis and design for additional debris management practices for the affected area of the East Troublesome Fire is underway and expected to be completed by the end of June with construction to begin the following month.

Seeding and Mulching to Begin this Summer
Application of seed and mulch is important for reducing potential erosion on burned hillslopes. Seed will only be applied to land that has between 20 percent and 60 percent slope and a moderate to high degree of severity. Northern Water has identified approximately 2,500 acres of private property that may be eligible for seeding and mulching. We are working to finalize these areas, as well as obtain proper permitting and local agency approval. Residents can expect to see helicopters beginning to make aerial drops of seed and mulch beginning in mid-July. Due to the size of the area needing treatment, application will take approximately 30 to 45 days to complete.

THANK YOU to Grand County landowners for their cooperation in allowing access to their properties for EWP assessments.

WATERSHED FIRE RECOVERY
September 2021 - East Sheet #7



Virtual Town Hall Set for Nov. 1, 2021

Grand County and Northern Water officials will answer questions about the Emergency Watershed Protection (EWP) Program during a virtual Town Hall meeting planned for 8:00 to 9:00 am on Monday, Nov. 1. Because of ongoing concerns to prevent the spread of COVID-19, the meeting will be conducted on the online Zoom meeting portal. The virtual Town Hall is open to the public to join.

Topics to be addressed include updates on fire recovery projects, EWP funding status and current practice impacts.

- About the Town Hall**
- **Who:** Property owners in the identified areas of concern (Area A and Area B)
 - **When:** 8:00-9:00 am, Monday, Nov. 1
 - **Where:** Find the Zoom link at www.grandcountycolorado.gov. Attendees will need to download and install the Zoom app on their computer prior to joining.
 - **Why:** To provide the recovery updates and answer questions about the EWP Program.



GRAND COUNTY WATERSHED RECOVERY

Search

About Project Planning Recovery Map News

AERIAL SEED AND MULCH TREATMENTS

Western States Reclamation conducted aerial ground treatments in Grand County to help burn areas recover from the 2020 East Troublesome Fire.

LEARN MORE



Landowner Coordination (EWP)

500+ landowners contacted

Landowner cooperation is critical to EWP

Landowner consent required

Many projects originally identified were not constructed

EWP work on Federal lands performed under a Special Use Permit (2021).

What have we done? (EWP)

500+

landowners contacted

250

landowner agreements

22*

projects completed

5,200

acres of aerial mulching

20,850

lbs. of seeds provided to 156
landowners

70

employees involved

\$18M+

Federal Funds

\$4M+

State Funds

Completed EWP Projects

Aerial Seeding & Mulching



Flood Protection





Flood Protection

Sediment Management

Headgate Protection



Roadway Protection

USGS Precipitation Gages for Early Flood Warning



<https://co.water.usgs.gov/infodata/COPrecip/index.html>

Post-fire Water Quality Monitoring

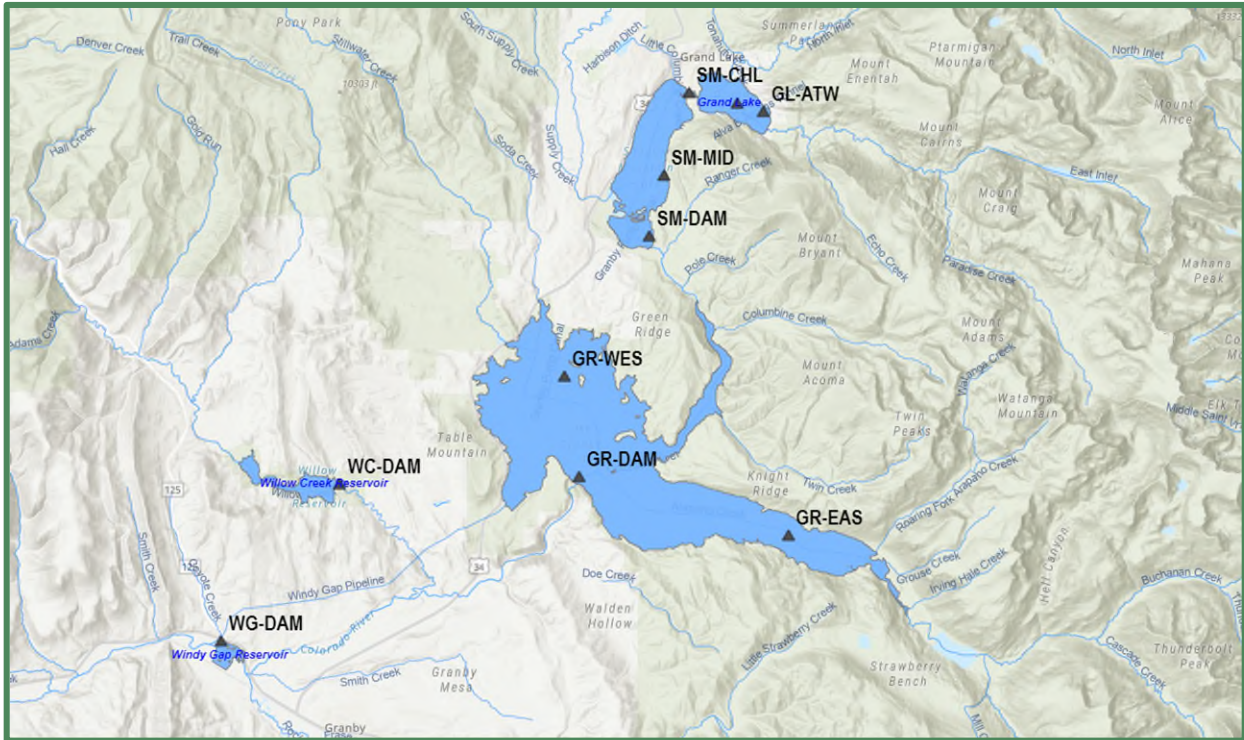
Increase in monitoring frequency
Additional parameters
Increase in real-time data collection

2022 USGS Joint Funding Agreement

Total Cost \$331,674

USGS \$77,996

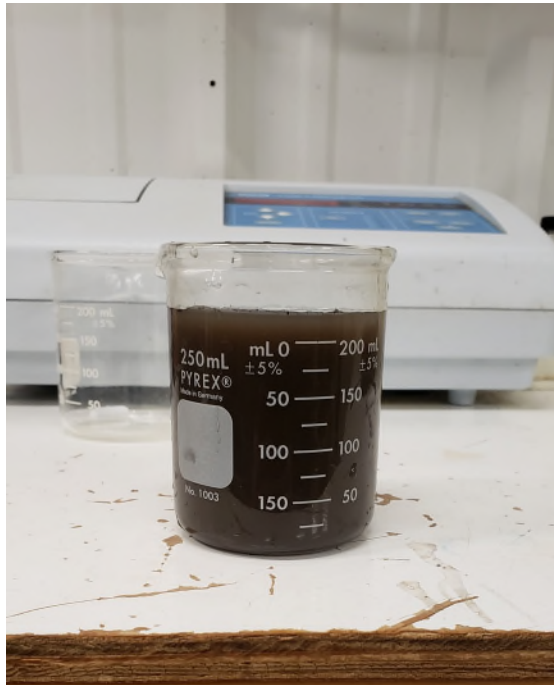
Northern Water \$253,678



Sediment Transport to the Upper Colorado River



Sediment Transport on the Upper Colorado River



Post Wildfire Impacts Can Last up to 10 Years or More



SEDIMENTATION



DEBRIS FLOWS



HARMFUL ALGAE
BLOOMS



WATER
TREATMENT



FLASH FLOOD

Questions? Comments?

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