

Wildfire Recovery & Resilience on the Middle Colorado River



MCWC

Middle Colorado
Watershed Council



Photos in this presentation courtesy of CDOT, City of Glenwood Springs, and MCWC

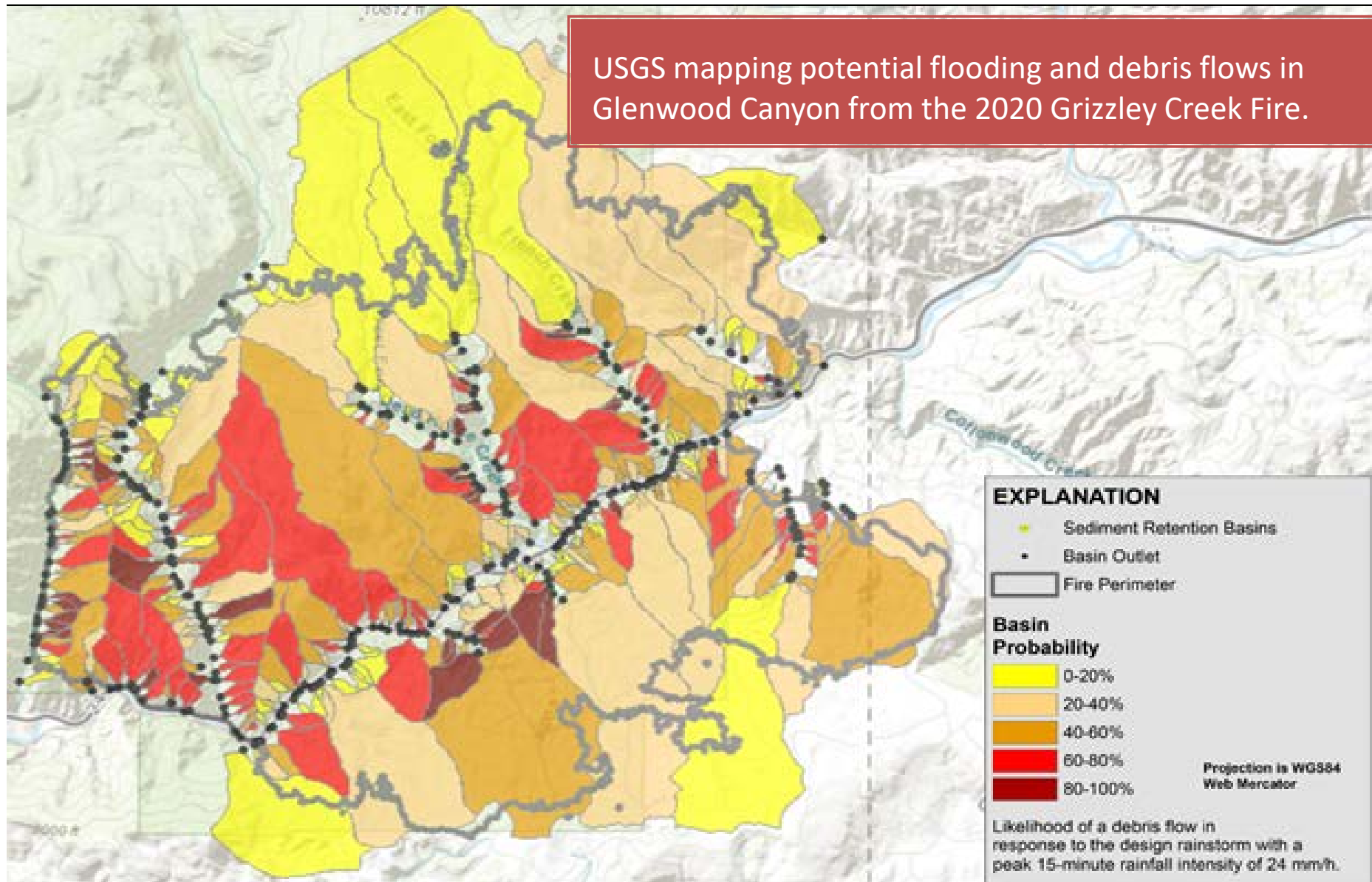
Middle Colorado State of the River 2022

Grizzly Fire – Immediate Impacts

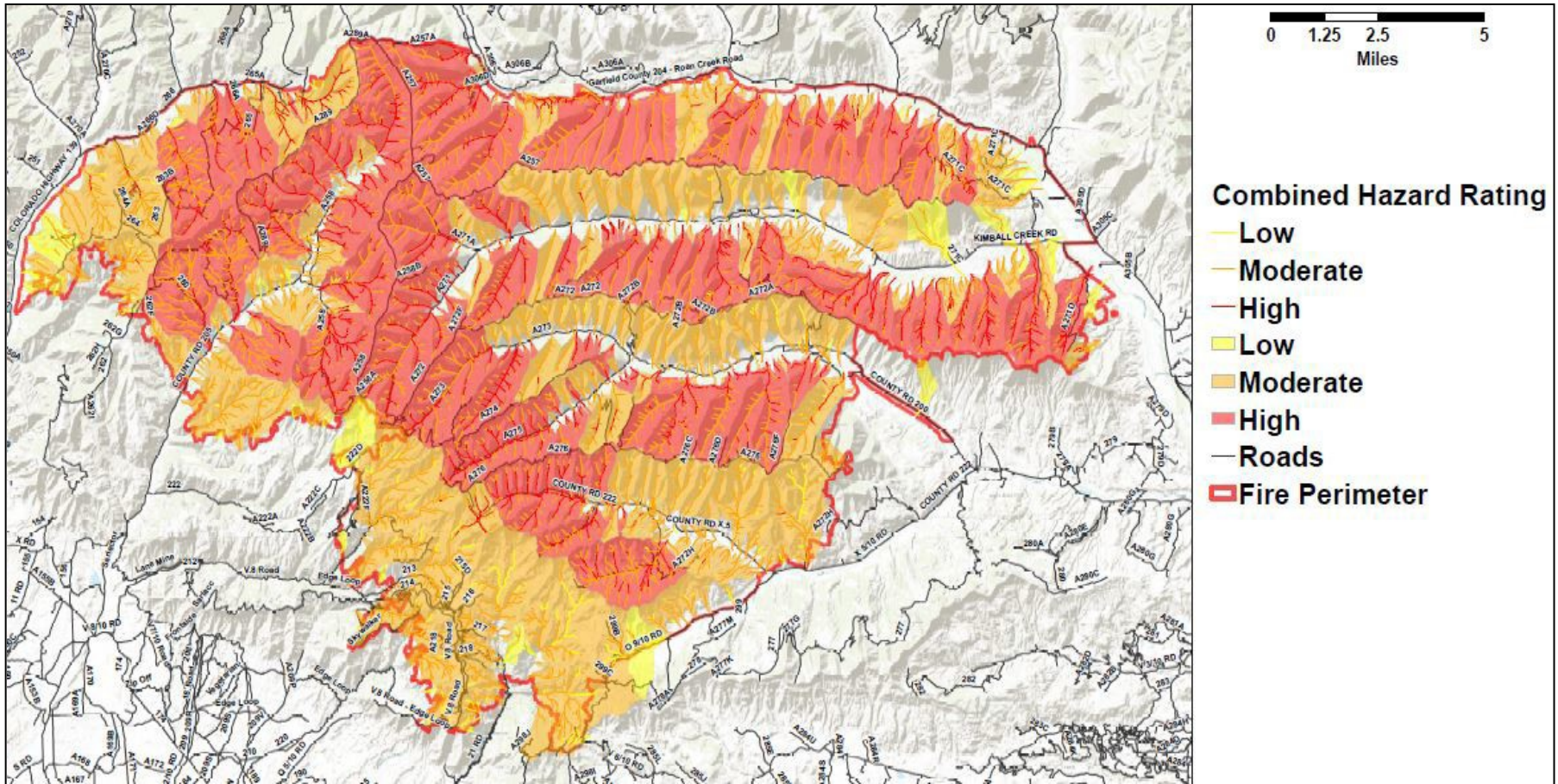
- ❑ Damage to I-70
- ❑ Glenwood Springs Public Water Intake and Treatment
- ❑ Public Safety
- ❑ Air Quality
- ❑ Local Economy
- ❑ Transportation



Grizzly Creek Burn Scar Debris Flow Map



Pine Gulch Burn Scar Debris Flow Map



USGS mapping for potential flooding and debris flows from the 2020 Pine Gulch Fire north of De Beque. In 2021, this area also experienced flooding and debris flows that impacted agriculture, natural resources, public water supplies, conservation and restoration projects and roads.

Post Fire Potential Impacts in the Watershed

- ❑ Health and Safety of Citizens
- ❑ Public Water Systems
- ❑ Buildings/Infrastructure
- ❑ Highway and Rail Damage
- ❑ Agriculture Ditches and Headgates
- ❑ Fish Population & Riparian Habitat
- ❑ Recreation
- ❑ Transportation
- ❑ Economic Impacts
- ❑ Forest Health



Legend

- ▲ Rainfall and Soil Moisture Sensors
- Continuous Monitoring Location
- ✕ Discrete Monitoring Location
- Existing Continuous Monitoring
- ▭ Rifle Area Monitoring Location
- ▭ Grizzly Creek Burn Scar
- ~ Major Hydrology

EXHIBIT C
WQ Monitoring Phase 2
 Middle Colorado Watershed Council

Date: 2/2/2022 Job No. 2021-439.001 Map by: CMP Checked by: Scale: 1:400,000
 Data Sources: USGS, SGM, Garfield County, NAIP

1/2021/2021-439/MCWCWaterQualityMonitor/0144-DigitalGIS/WQ-Monitoring/MCWCWQ-Monitoring/MCWC.aspx
 The information displayed above is intended for general planning purposes. Refer to legal documentation/data sources for descriptions/locations.

Flooding and Debris Flows



- Flooding and debris flow incidents begin in June 2021.
- Mostly cleanup effort with earlier incidents.
- July 29 through July 31 caused major damage to highway infrastructure and trails.

After the Fire: Flooding and Debris Flows



<https://www.youtube.com/watch?v=Ml16DMgxyUUC>DOT
CDOT drone footage post debris flow.

Debris Flows 500-Year Flood Event



Scouring removes accumulated debris from gully floor.

Considering the Future

Cost of the current mitigation from last fires

- ▣ Increasing awareness of potential impacts
- ▣ Fish populations and the repercussions of increased sediments
- ▣ Delayed project work resulting in increased costs
- ▣ Continued economic and infrastructure impact
- ▣ Challenges to the agriculture community with high sediment and long-term sediment loads



Considering the Future

Planning for the next watershed changing event



- ▣ Redefining priorities and redirecting resources
- ▣ Project goal updates to accommodate changes due to warming and drying temperatures
- ▣ Understanding low soil moisture impacts
- ▣ Increasing pre-fire mitigation activities and risk assessment
- ▣ Applying what we've learned to for the next disaster

Cooperative Partnerships With Multiple Stakeholders

Downstream Users

- ❖ Glenwood Springs, New Castle, Silt, Rifle, Parachute, Battlement Mesa Metro District, De Beque
- ❖ Ditch Companies, Conservation Districts and Conservancy Districts on the Middle Colorado River: South Side and Bookcliff Conservation Districts, Blue Stone, Silt Water Conservancy District
- ❖ Users of the Lower Colorado River (from De Beque Canyon to the border)
- ❖ Recreation community (anglers, paddlers and river users)
- ❖ Natural resource agencies concerned with sediment impacts on fish and natural habitats

Project Supporters and Collaborators

- ❖ Colorado River District * CWCB * CDPHE * USFS
- ❖ CDOT * NOAA * BLM * USGS * CPW
- ❖ I-70/Glenwood Canyon Recovery Operations (state and local partners)
- ❖ City of Glenwood Springs and other downstream municipalities
- ❖ Garfield County, Eagle County, Mesa County
- ❖ Glenwood Canyon Restoration Alliance
- ❖ Colorado Basin Round Table
- ❖ Colorado Department of Natural Resources
- ❖ Colorado Rural Water Association
- ❖ Roaring Fork Outdoor Volunteers
- ❖ Water Conservancy and Conservation Districts
- ❖ Roaring Fork Conservancy
- ❖ Eagle River Watershed Council

Questions?

Middle Colorado Watershed Council

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Please visit our website: www.midcowatershed.org

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