



Meeting Recording: <https://eroresources.sharefile.com/d-s0673bc6d758f40a3a8ebf1bb02224b96>

Cimarron River and Blue Creek Watershed Assessment

Workshop
July 28 2022

Welcome- Allen

Watershed Assessment Purpose (Matt)

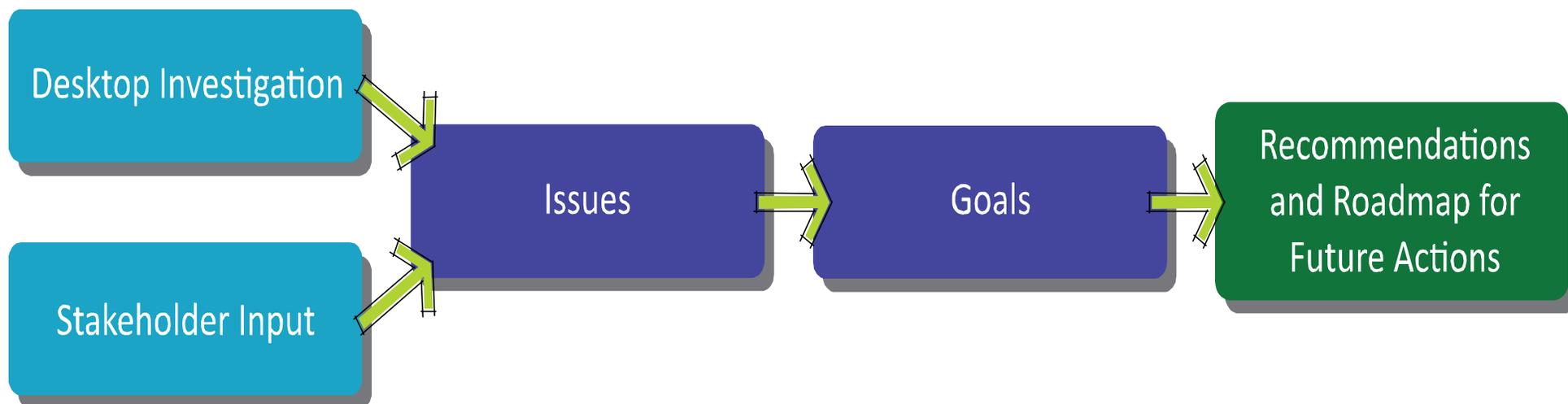
- Assess and document the watershed's environment, geologic features, water uses and supply gaps, water quality impairments
- Engage stakeholders in setting goals, developing priorities and recommendations for addressing known issues

Workshop Goals

- Share findings of assessment, and collect your input on goals and recommendations

Introductions (Cass)

Cimarron River and Blue Creek Watershed Assessment Process

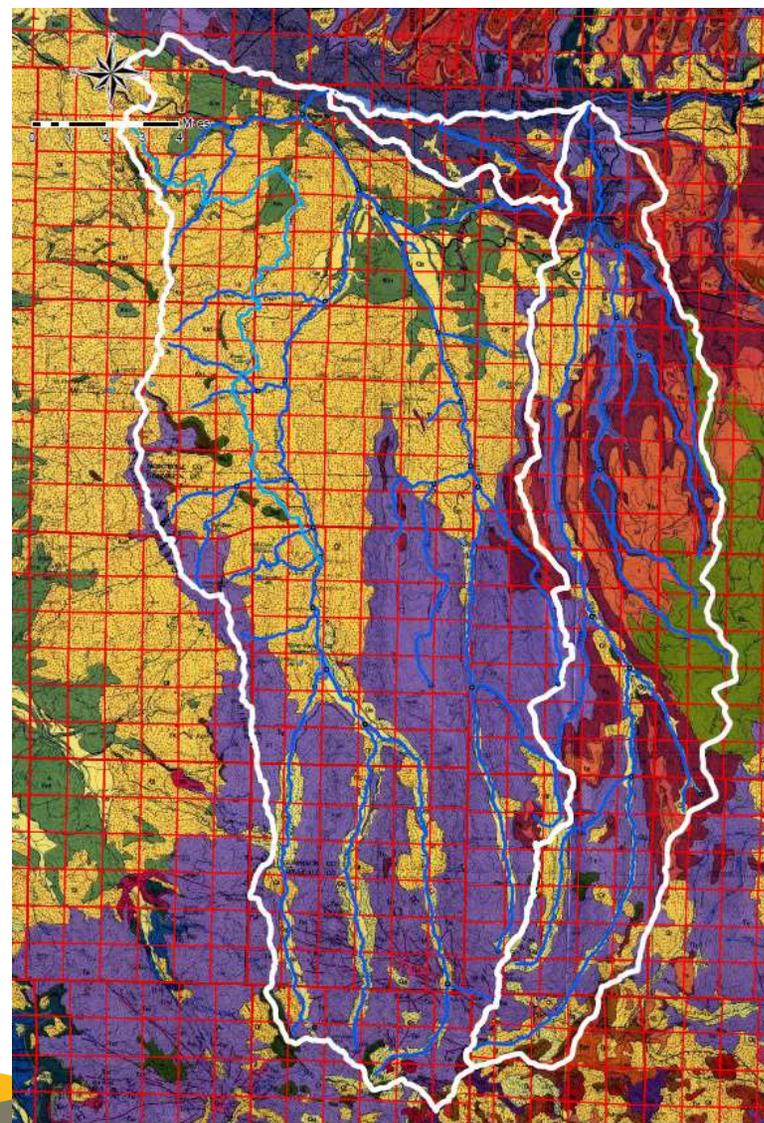


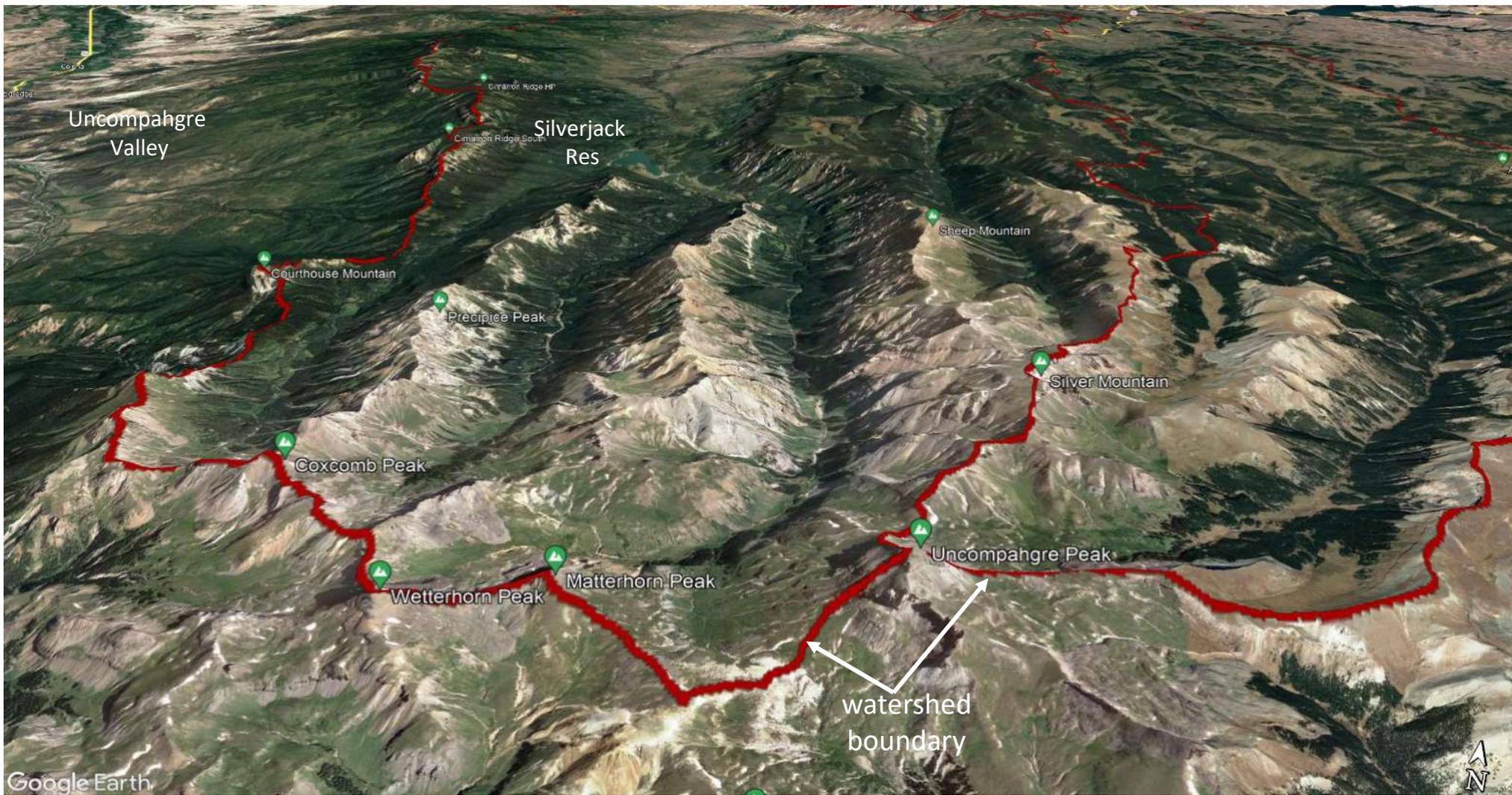
Watershed Overview

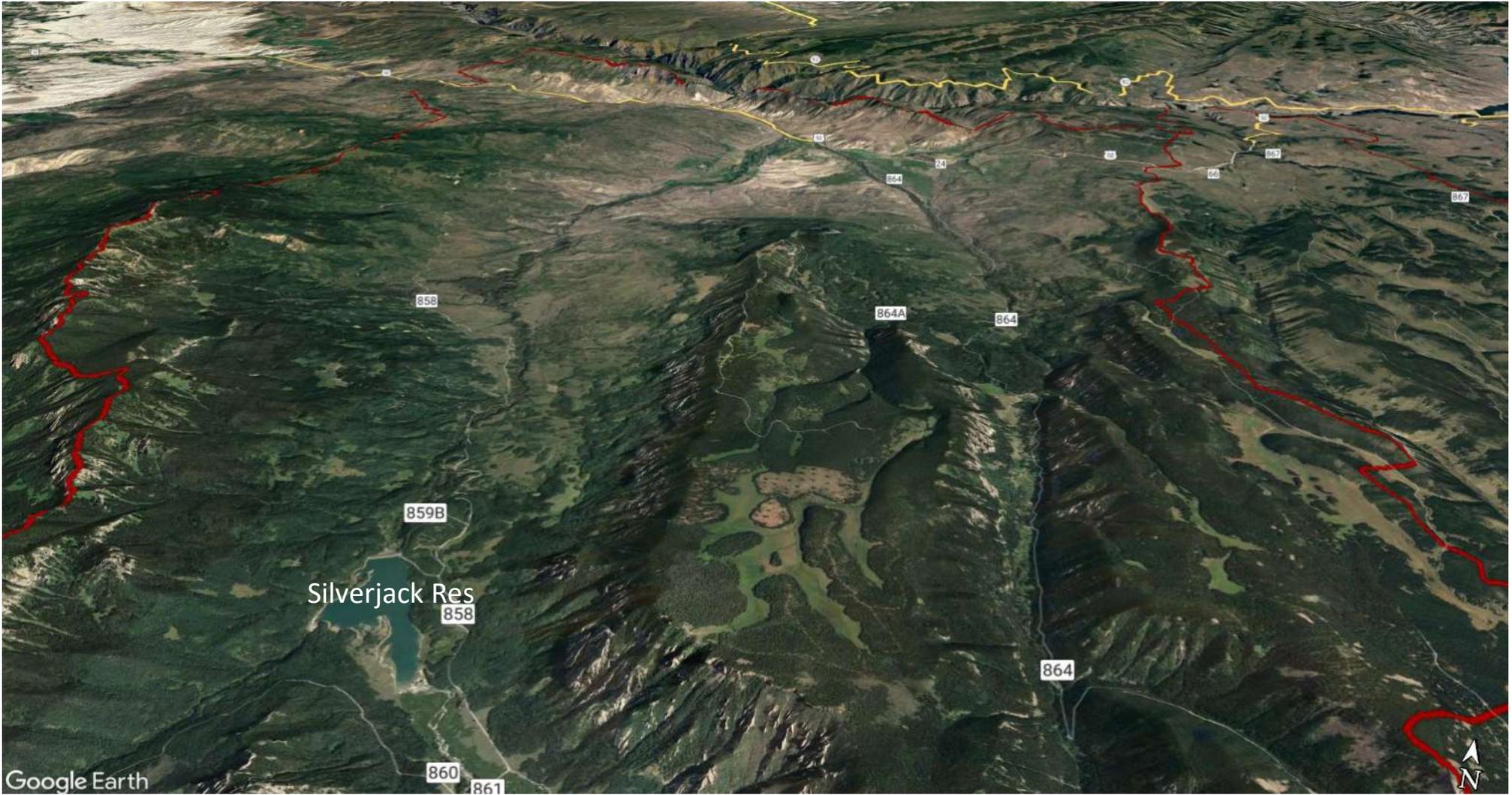
- Topography and geology
- Land ownership, land cover and land use
- Environmental resources

Topography and Geology

- Purple, red, orange - High elevation, volcanic breccias, pyroclastics, tuffs (ash), and mudflow deposits from the San Juan and West Elk volcanics
- Stippled Yellow- Landslides, underlain by relatively shallow Mancos shale
- Dark Green - Mancos shale (weak clays)
- Dark Gray (northern boundary) - Black Canyon Precambrian granites and metamorphics

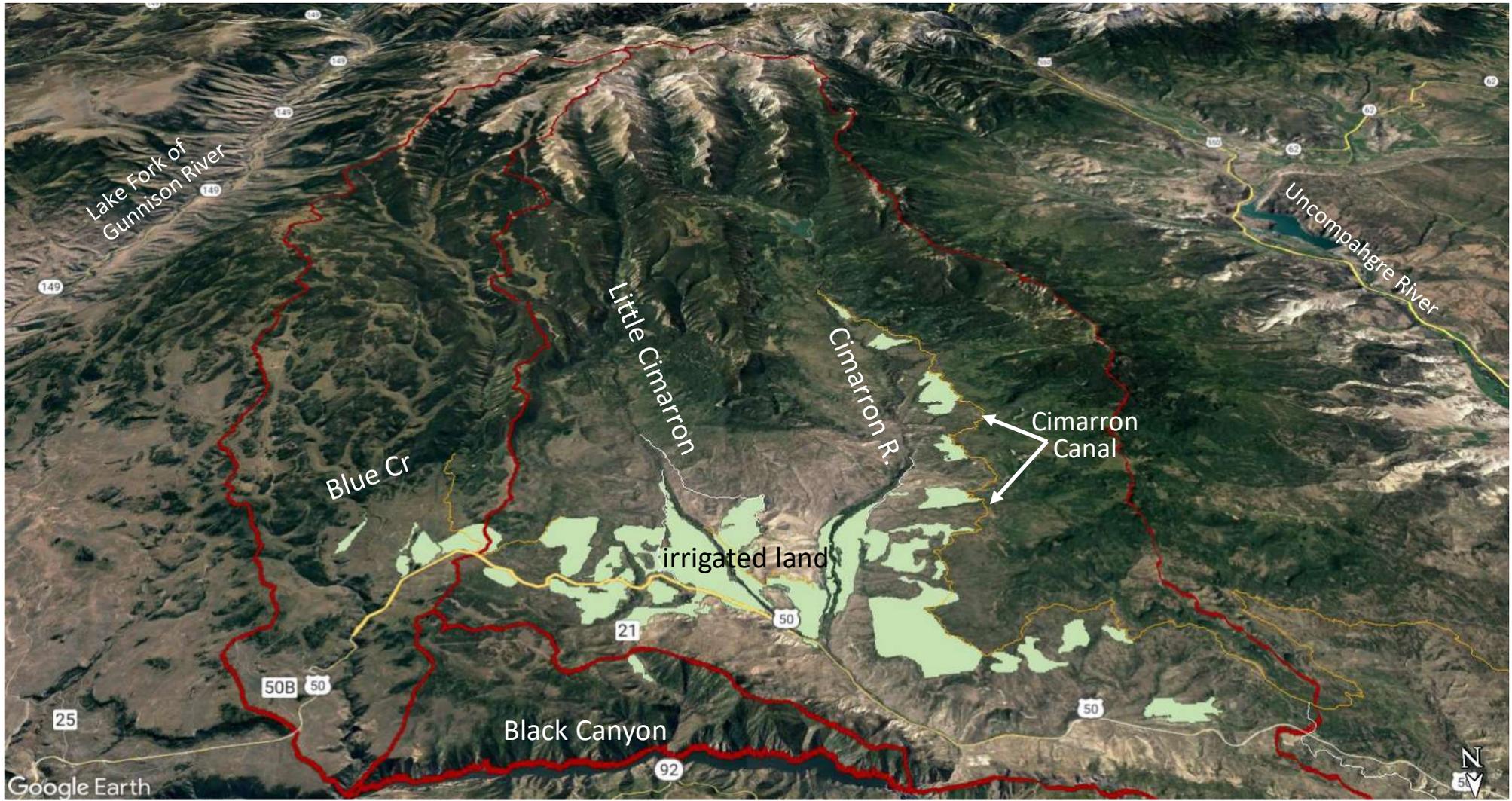






Google Earth

Silverjack Res
858

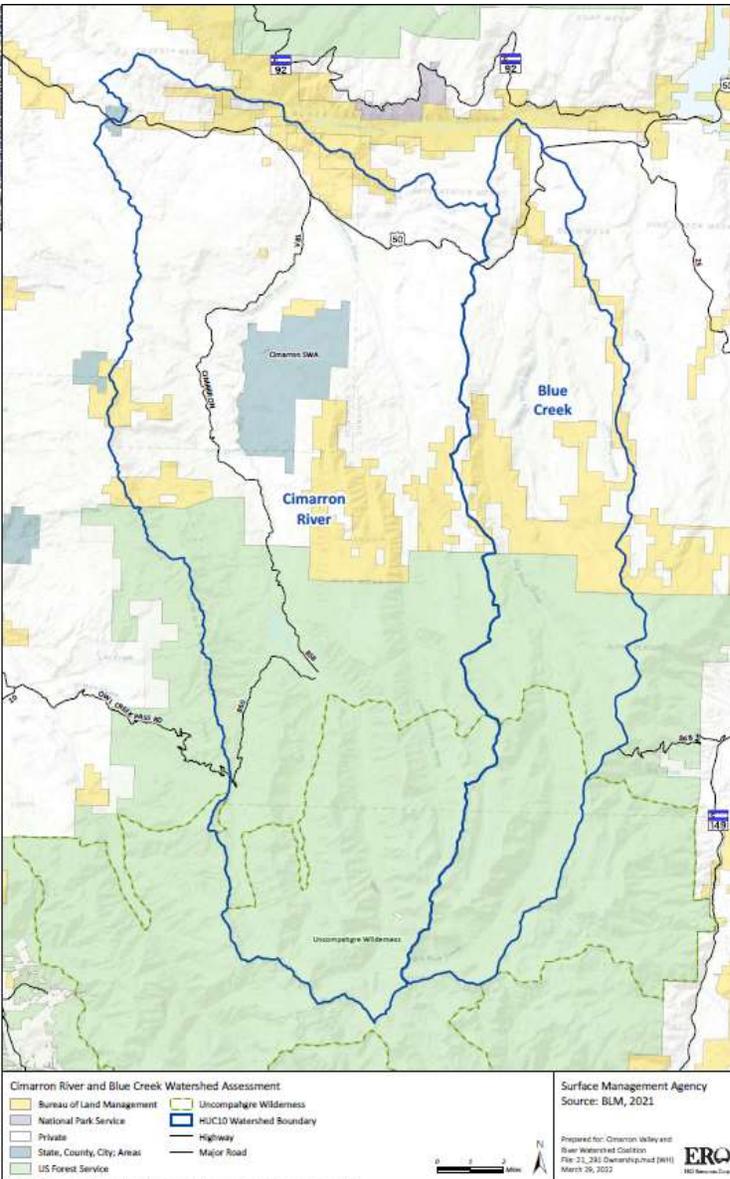




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Land Ownership

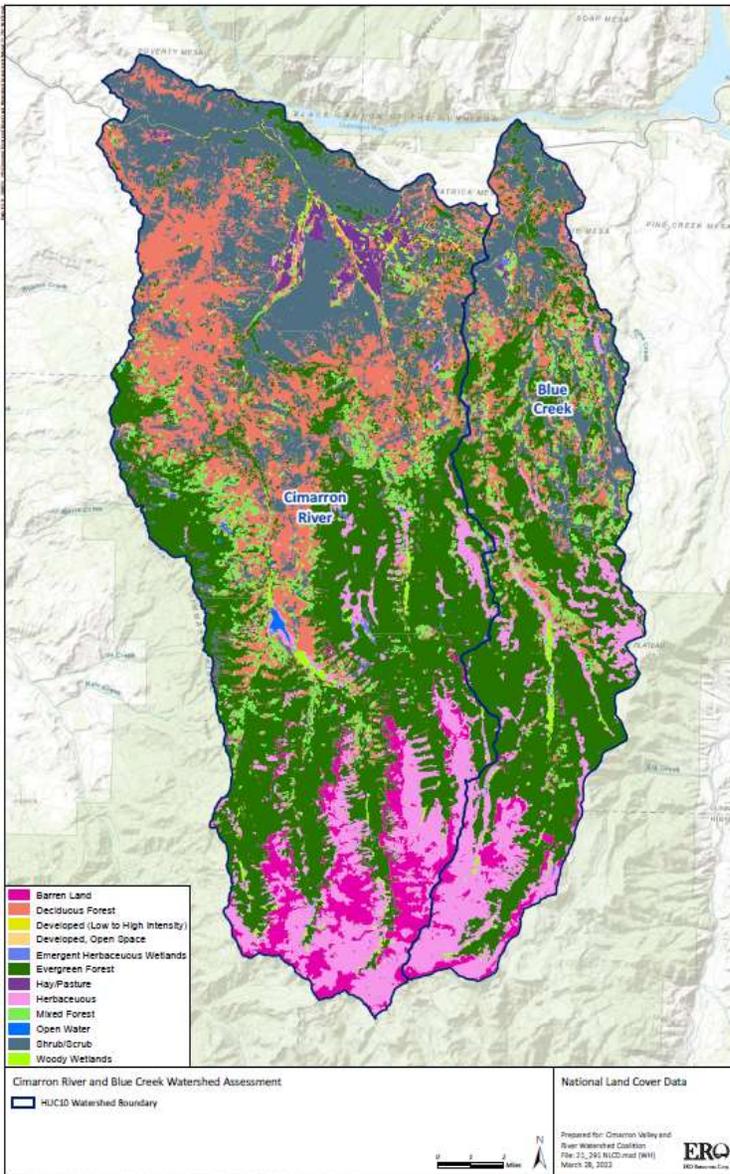


Ownership	Total	
	Acres	Percentage
USFS	93,810	45%
BLM	25,782	12%
Local (State)	6,613	3%
Private	84,088	40%
<i>Total</i>	<i>210,293</i>	<i>100%</i>

Land Cover and Land Use

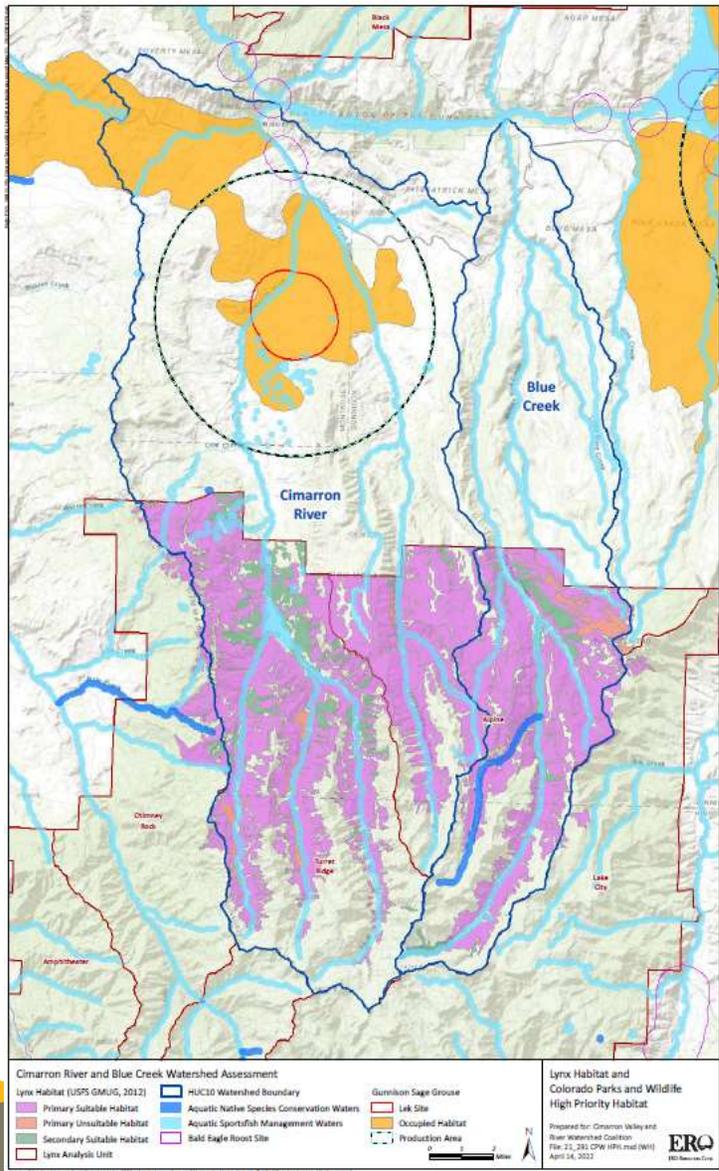
Lands in the watersheds are largely undeveloped, with over half of the acres forested (67 percent or 141,498 acres of combined evergreen deciduous or mixed forest). Shrubland comprises 11.7 percent or 24,690 acres, and barren lands (lands above treeline/rocky outcrops) occupy 5.4 percent or 11,407 acres.

- Grass pasture is 14 percent (29,545 acres);
- Other hay crops are 0.37 percent (785 acres);
- Alfalfa comprises 0.07 percent (142 acres);
- Open space and development occupy 0.47 percent (987 acres).



Environmental Resources

- Water
- Fisheries
- Big Game
- Endangered Species Habitat





Priorities we have heard so far

1. Manage and protect overall watershed health (flows, water quality, riparian habitat, fisheries)
2. Preserve wildlife habitat (big game, endangered species)
3. Improve irrigation: Address ditch stability, modernize infrastructure, conserve water use
4. Preserve agriculture heritage
5. Respond to supply and demand crisis on Colorado River- balancing the watershed and it's water uses



How we will spend remaining time:

- Known issues, recommendations for future management of the watershed
 - **Public Lands in Upper basin- Recreation, fisheries/wildlife, fire mitigation**
 - **Hydrology- Streamflow/water quality, fisheries**
 - **Irrigation infrastructure and irrigation practices**
 - **Private lands**
- **Wrap-up: Prioritize Goals and Objectives (15 minutes)**

Part I. Public Lands- National Forest/CPW/BLM

Ashley Hom- GMUG- Reviewed ongoing programs, and new initiatives for fire risk mapping. Beaver-based restoration for improving water flows.

Dayle- Gunnison Ranger District- Reviewed collaborative projects/STOR, fire mitigation challenges, weed control.

Dana Gardunio listed these Issues and Actions- Ouray Ranger District

- Recreation pressure and impacts in Silver Jack Reservoir and Cimarron Forks area, particularly dispersed camping near streams which impacts vegetation, causes erosion, soil compaction and human waste problems.
 - In response: Protective fencing has worked; USFS is studying restricted camping - designated campsites
- Fire mitigation- municipal water sources depending on the watershed are increasingly concerned with fire.
 - Several active Fire Mitigation projects are ongoing within or near Cimarron watershed
- Wildlife- hunting is popular; managing fishing/hunting pressure.
 - USFS is Working with CPW on defining Special Management Areas
 - **State of Wildlife- Big Game and Fisheries- CPW explained that fisheries are at risk in the Big Cimarron River primarily due to low flows and high temperatures.**

Note: The USFS is updating their Forest Management Plan from 1985; Final Released in Fall. The New Plan will have more flexibility towards “desired conditions on the landscape”.



Part I. Public Lands- Discussion

Goal #1: Maintain connection with state and federal land management agencies

Recommendations/Project ideas:

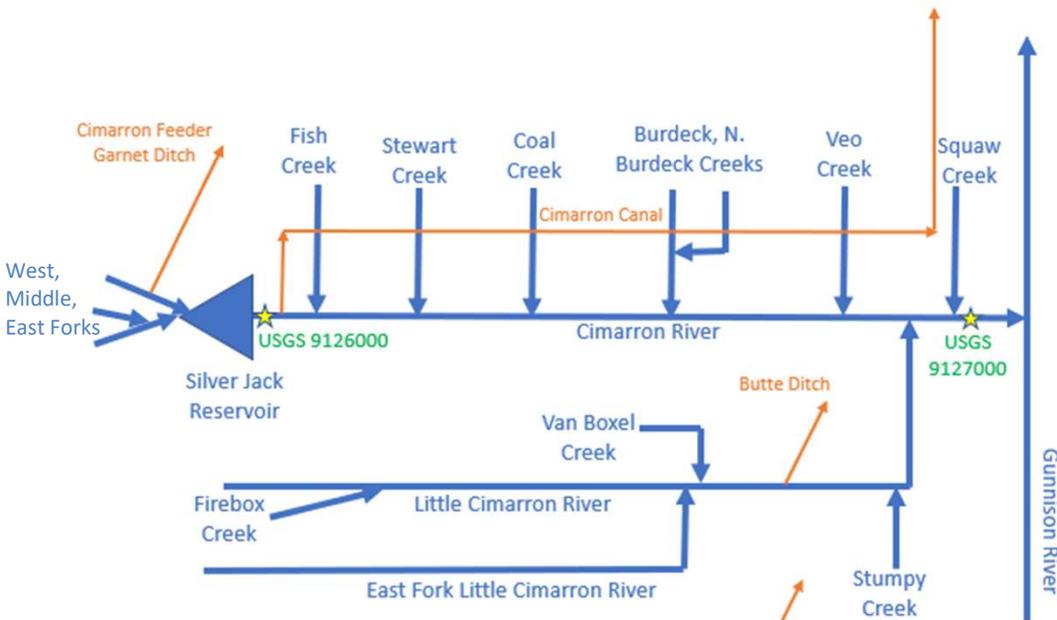
- Look into potential funds for infrastructure to protect from beaver damage
- Beaver-based restoration/riparian reconnection to address temperature issues above SWA
- Opportunities for funding/collaboration with STOR and Gunnison Shared Stewardship Council
- Public/private partnerships for fire mitigation/fuels treatment
 - Follow up on fire hazard map being produced by JW associates; this could be overlaid on watershed by this fall
 - Dayle offered to work with us on Potential Delineation System
 - Explore new CWCB program for fire mitigation
- Address flows in Cimarron River to help fishery
- CPW is interested in fish screen project on Nate Creek to protect native cutthroat population
- CPW is investigating issue w/Beaver Lake fishery (impacted by cattle waste)
- Add temperature measurement stations to the existing flow measurement stations
- Noxious weed control collaborations (also note natural weed control methods)

Part II. River and stream flow- Issues

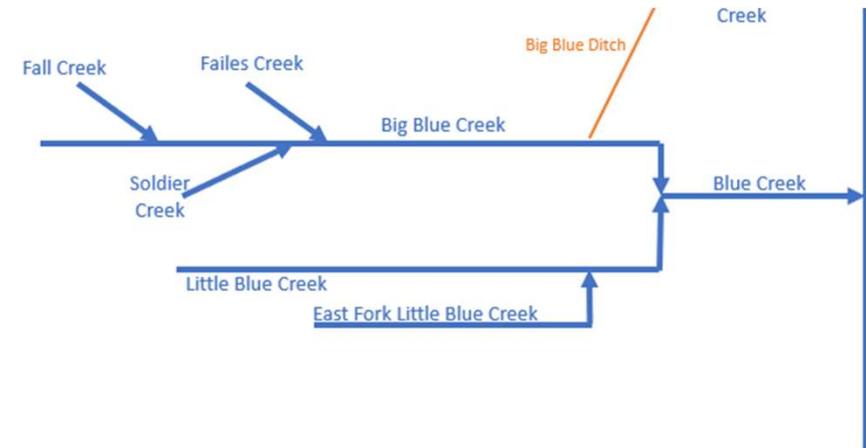
- Effect of Irrigation Water Diversion, Drought, on River and Stream Flow

Hydrology – Basin Schematic

Cimarron and Little Cimarron

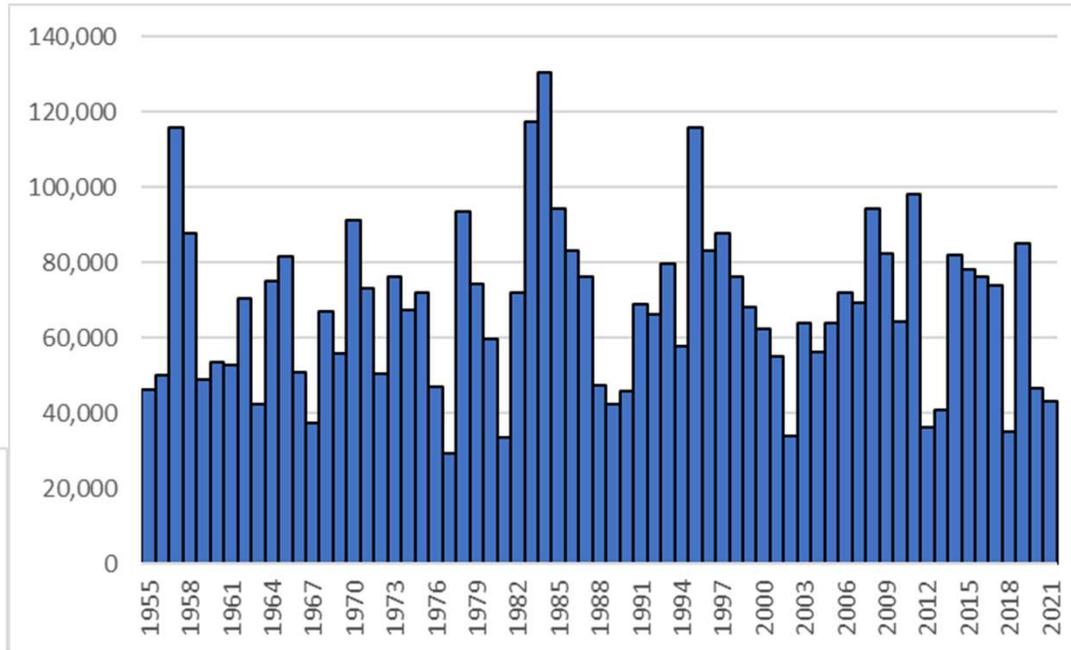
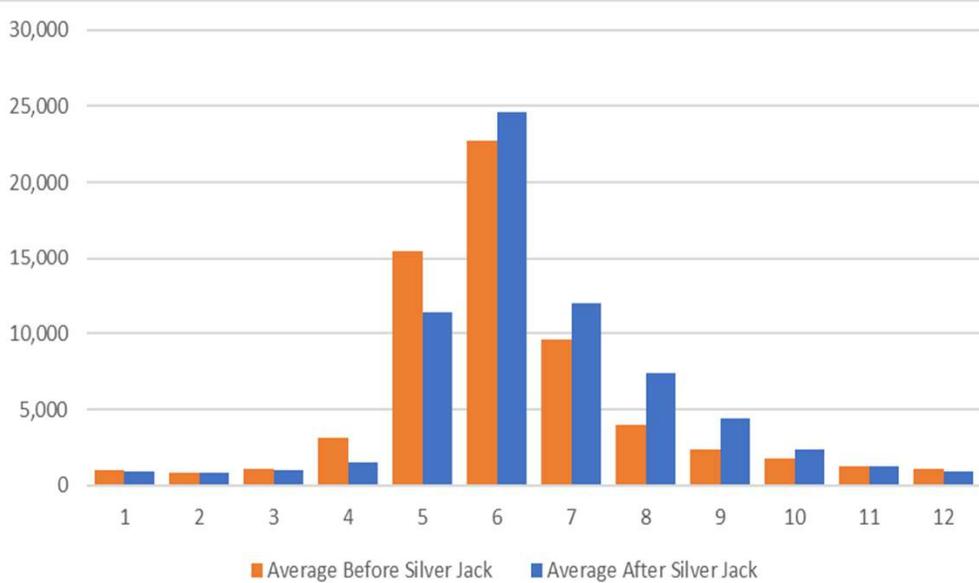


Blue Creek



Cimarron River below Silver Jack

Seasonal Variability Before and After Silver Jack construction



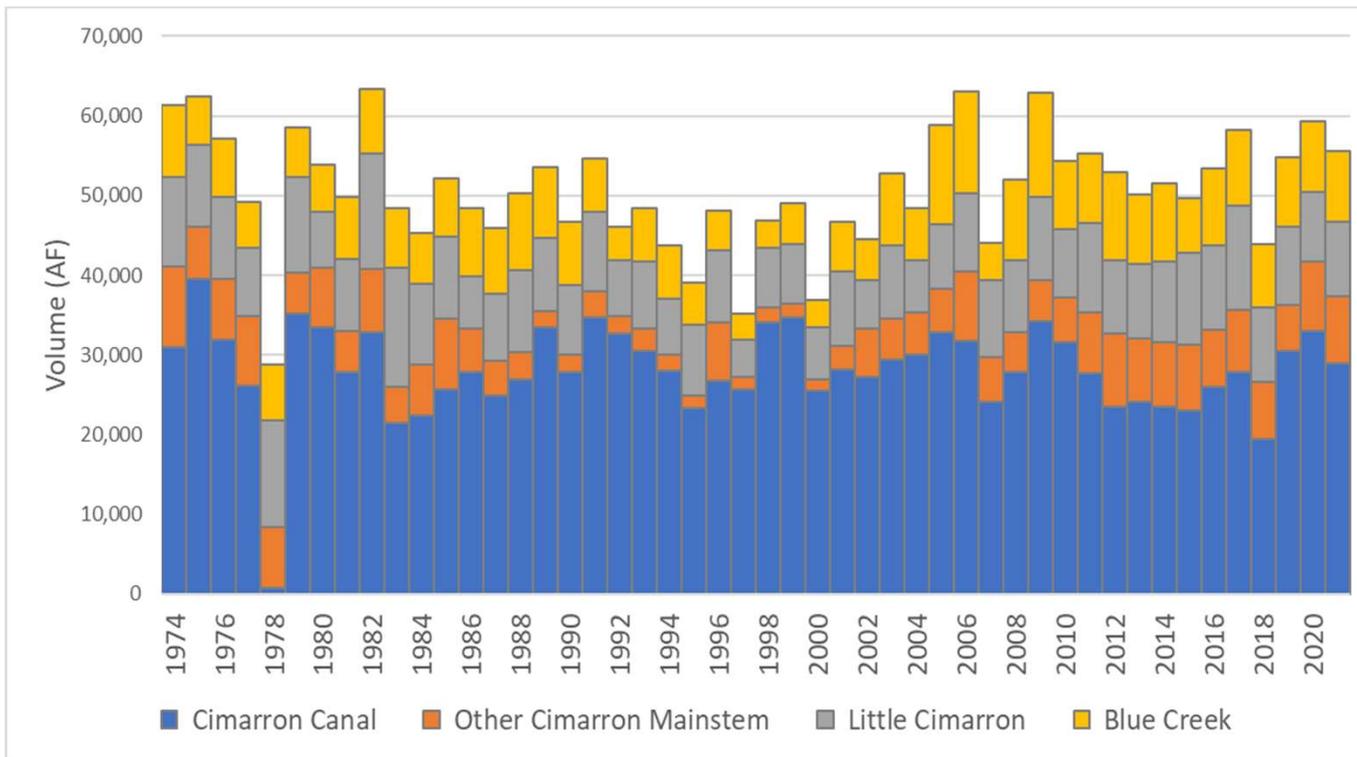
Annual Variability

25,000 acre-feet to 130,000 acre-feet

Average 1955-2021 67,600 acre-feet



Annual Diversion by Basin at Major Ditches



Average Annual (AF):
 Total: 56,000
 Cimarron Canal: 30,000
 Cimarron Mainstem: 7,000
 Little Cimarron: 10,000
 Blue Creek: 9,000

Diversion records for many smaller water rights are incomplete or missing

River and Stream Flows and Water Quality

Tailwater return flows cause temperature increase,
potentially elevated salt and selenium

Where are fisheries at risk?

- Cimarron River
- Little Cimarron
- Blue Creek
- Other areas?

River and stream flow and water quality

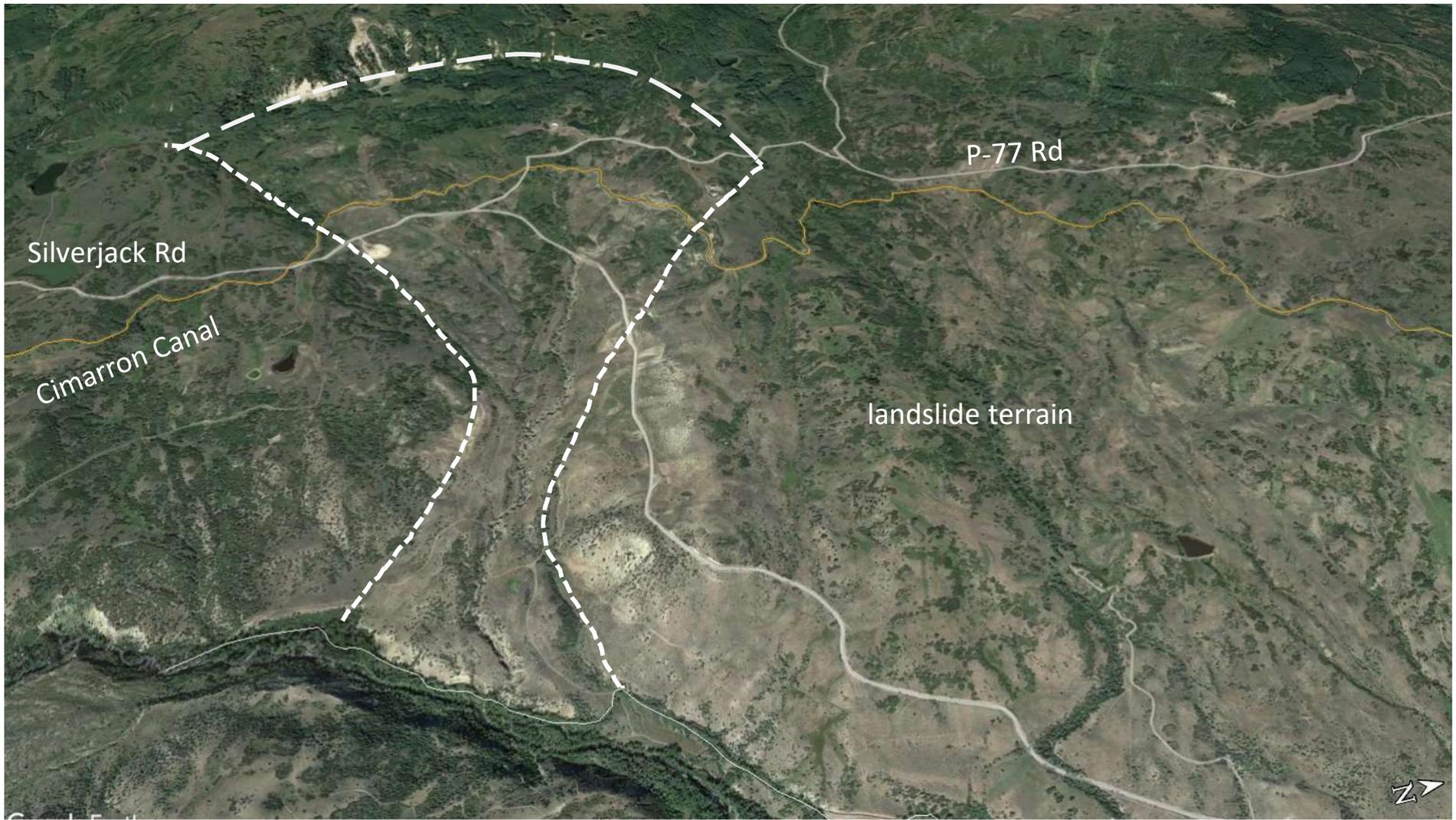
Goal #2: Increase flows and Improve Water Quality in the Cimarron River, Little Cimarron, and Blue Creek Recommendations/Project Ideas

- Note that Cimarron Canal Company has completed improvement to upper basin storage (Fish creek reservoir #2)- this will have a positive impact on flows in the river.
- Flow by-pass agreement (water rights)- more agreements with water shareholders would really help, no matter how small.
- Rebuild the headgates on Veo and Butte ditches (along Big Cimarron, just above State Wildlife Area) so water can be shepherded past these ditches.
- Keep working on irrigation efficiencies/ditch lining or piping; water savings can be 10-15% of what is diverted, or 1 cfs/mile piped
- Consider administrative incentive to make sure conserved water ends up at the headgate so stream flows benefit
- Additional flow & temp measurement locations (only 2 are in basin);
 - Monitor where water goes within the system and where it leaves the system; ideally in the future if high flows are detailed for tailwater leaving the system- there is a signal sent up to adjust diversions.
 - Install temperature measurement stations wherever flows are being measured – allow water managers to react in real time to temperature issues; 1,500 AF is available for helping flows
- Other ideas? USFS: Recreate off-channel historic beaver paths/reopen channels that have grown over. Note that downstream water rights would need to be considered (no injury due to impoundment).

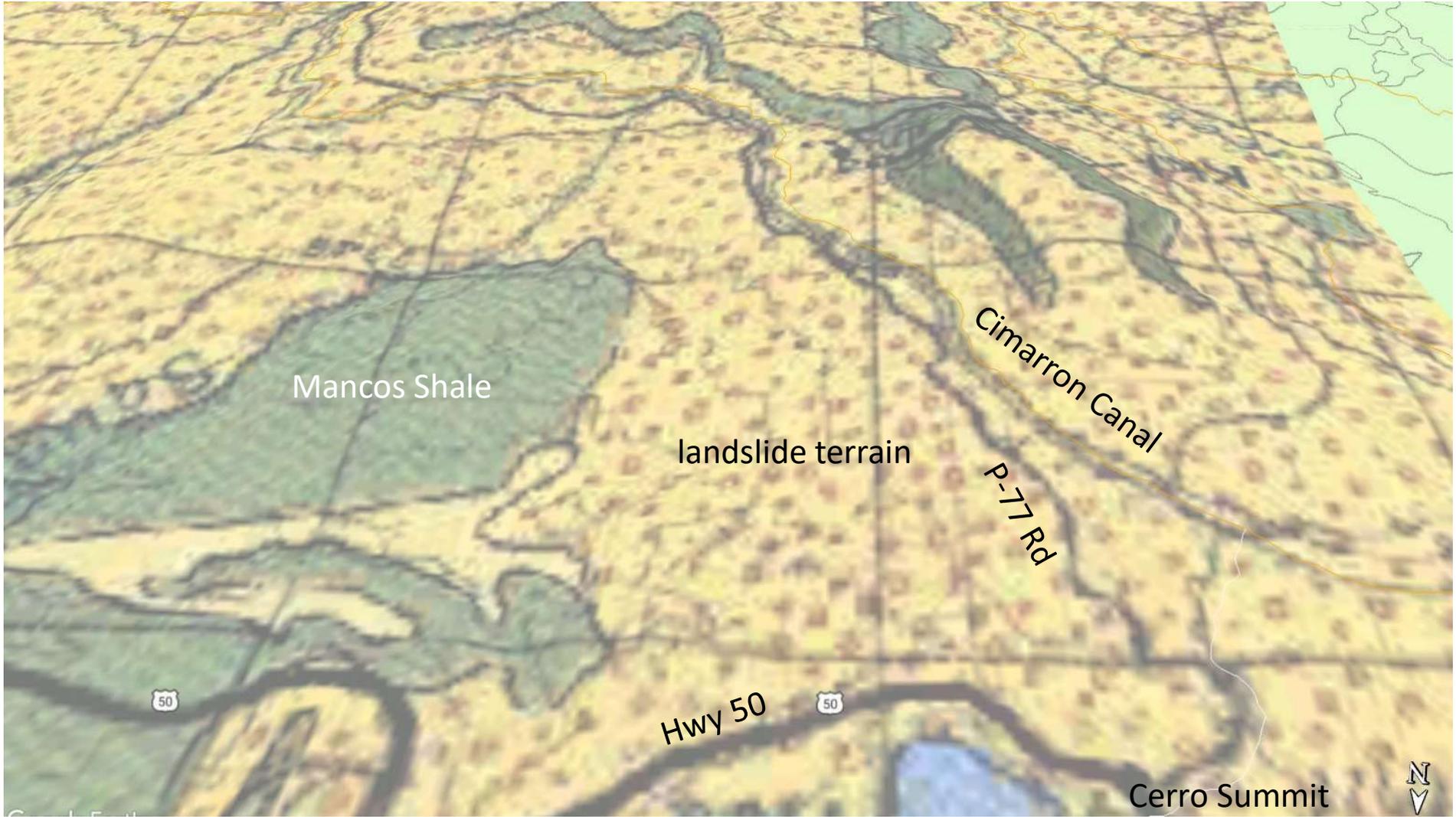
Part III. Irrigation Infrastructure and Practices

Issues:

- Geologic hazards
- Water loss/water seepage
- Water use on the landscape; consumptive use for crops and tailwater return flows/water quality (previously mentioned)
- Water shares/water “ownership”







Irrigation Infrastructure and Practices

Funding Opportunities:

- Colorado River District
- CWCB
- Gunnison Basin Roundtable
- Federal Funding

Discussion of flow by-pass agreement (water rights)

- Irrigation efficiencies and ditch conveyance losses- note these benefits should be weighed against potential loss of late season flows (leaking ditches can help with water storage....)

Irrigation Infrastructure and Practices

Goal #3: Modernize and stabilize irrigation infrastructure; make best use of available federal funding

Opportunities/Recommendations

- Address poor irrigation practices; how to do this?
- Ongoing: Improvement to Blue Ditch- the Coalition can help smaller ditch companies with federal funding opportunities; provide administrative support
- Improvements to Veo and Butte headgates as mentioned earlier regarding flows; administrative help- ask DWR for help shepherding 1500 AF downstream (Ryan Utteriner is contact).
- ? Improvement to Garnet ditch headgate so rainfall is not swept out of basin?
- Future “pipe dreams”: Pipe Garnet Ditch, pipe Cimarron Canal
- Potential funding for infrastructure protection from beaver damage (roads, canals; instability issues)
- Seek funding for addressing geologic hazards

Part IV. Private Lands

Issues:

- Weeds; managing along with public lands
- Fire mitigation; managing beetle kill along with public lands
- Ability to irrigate and quality of grass, hay/forage, weeds
- Development pressures
- Absentee landowners

Opportunities/Recommendations

Fisheries and Wildlife Habitat

Goal #4: Maintain and Improve Terrestrial and Aquatic Species Habitat

Recommendations

- Weed control
- Fire mitigation



Community Involvement and Education

Goal #5: Increase community involvement and educational outreach in the Cimarron River and Blue Creek watershed

Strategies/Opportunities

- Annual gathering
- Monthly coalition meetings; invite presenters

Specific Recommendations

Wrap Up

- “Don’t limit your challenges. Challenge your limits”- Jeffrey Dunn.

Goals and Recommendations

Goal #1: Maintain connection with state and federal land management agencies

Goal #2: Increase flows and Improve Water Quality in the Cimarron River, Little Cimarron, and Blue Creek

Goal #3: Modernize and Stabilize Irrigation Infrastructure; make best use of available federal funding

Goal #4: Manage noxious weeds and beetle kill timber for fire mitigation and overall wildlife habitat/forest health

Goal #5: Increase community involvement and educational outreach in the Cimarron River and Blue Creek watershed

Thank you

Stay tuned! Report will be out by end of September

Next coalition meeting: End of August