

IRA Monitoring: Hydrology

IRA Name:	Lazyman	Subunit ID:	BHM	Observer(s):	Ingman et al.	Date:	7/19/23
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1. Sedimentation, headcuts, dredging.

Waterbody Name (if known)	Point Name	Lat	Long	Notes/photo #s
-Colorado Gulch	-	46.506354	112.195537	CG-1. Breached historical dam across CG, likely associated with historical placer and/or hydraulic mining.
-Colorado Gulch	-	-46.51027	-112.19578 2	
-	-	-	-	-CG-2. Evidence of historical placer and/or possible hydraulic mining in upper CG. Large boulders removed from stream channel, and piled presumably to access bedrock in the main stream channel.
-	-	-	-	-
-	-	-	-	-

2. Catastrophic erosion event/washout.

Waterbody Name (if known)	Point Name	Lat	Long	Notes/photo #s
-Colorado Gulch	-	-46.51704	-112.197119	-CG-3, 4, 5. Channel avulsion around former beaver dam terraces with resulting down cutting/head cutting.
-	-	-	-	-
-	-	-	-	-

3. Evidence of hydrologic impacts of wildfire (streamflow and erosion).

Waterbody Name (if known)	Point Name	Lat	Long	Notes/photo #s
-	-	-	-	-

4. Riparian trampling (impacting hydrology/water quality).

Waterbody Name (if known)	Point Name	Lat	Long	Notes/photo #s
-Colorado Gulch	-	-	-	Riparian enclosure at the very head of CG.

-	-	-	-	Fenced area but the gate was open. Doug Powell knows the history. There is developed water for livestock in LM IRA just downstream (piping and a tank).
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5. Additional Hydrology Comments and Observations

Blackhall Meadows and Colorado Gulch survey was performed on July 19, 2023 by Doug Powell, Gary Ingman, Dennis Milburn and Paul Ferry. We left town at 8:30 am and returned at 7:00 pm (42 volunteer man hours). We walked into BHM from the trailhead, encountering a newly constructed banked bicycle out curve feature on the trail about a half mile from the trailhead. Doug documented the feature and reported it to the HLCNF.

We surveyed the lower BHM area noting lots of amphibians (adult and larval frogs) in the wetlands and seeps before the meadows. There is evidence of historical hydromodification in and adjacent to the meadows, including channeling flows from springs and seeps to a constructed pond system, presumably for hay irrigation and possibly placer mining of the outlet stream (Little Buffalo Gulch?). There is evidence of placer dredging along the meadows outlet, Little Buffalo Gulch, (revegetated dredge piles with LPP and a channelized stream). There are remnants of irrigation ditches across the meadows, and an apparent east to west oriented tile drain running much of the length of the meadows, presumably for irrigation purposes. The Lazyman IRA boundary does not start before the hydrologic divide where the meadows begin draining northward into Colorado Gulch.

We descended Colorado Gulch. The spring emergence headwaters of CG are fenced as a cattle enclosure but the gate was open and the fence dilapidated. Doug knows the history of this fencing by the MT Conservation Corp (?). There is developed livestock water a short distance downstream along the creek (tank and piping, evidence of electric fencing).

There are a number of historical cabin remnants in the upper CG drainage, presumably associated with historical mining activity.

It is apparent that CG was intensively placer mined with extensive rock/boulder removal and stacking of rocks from the main stream channel. Doug Powell described remnants of a former trolley system and buckets to relocate rock. This activity has not significantly affected the hydrology of this stream system, which is naturally steep gradient, incised, and a Rosgen A channel type.

The historical rock work continued downstream for some distance. The stream drains granitic geology and all step pools and low gradient areas are inundated with granite sand bedload. The water is clear.

Some distance downstream, Doug pointed out where a series of beaver dams used to exist but have since breached and drained. The former dam terraces are still apparent and the stream has avulsed to the east side of the valley in an entrenched setting. The downcut/headcut is only 50-75 yards long but was a significant sediment source when the breach occurred. The channel depth is perhaps 8-10 feet deep in a localized area (photos).

Doug says he remembers an extensive beaver dam complex in this area not too many years ago. He mentioned the beavers were trapped out and the breach occurred possibly only 4-5 years ago. The stream is recovering from this event and the affected reach is localized. CG is a tributary to Tenmile Creek, which is listed as water quality-impaired for sediment. Treatments on CG within the Lazyman IRA could benefit TMDL-related restoration efforts to sediment impairment in Tenmile Creek.

We did not survey CG downstream from this general area.