

Meeting Summary
Bonita Peak Mining District Community Advisory Group
August 15, 2024, 5:30—7:48 pm
Via Computer Conferencing and In Person
at Santa Rita Water Reclamation Facility Conference Room
Durango, CO

CAG Members attending: Chara Ragland, Helen Mary Johnson, Parker Newby, Ty Churchwell, Jason Fast, Russ Anderson, Terry Morris, Brian Devine and David Palmer. Online: Anthony Edwards and Sara Burch.

Also in attendance: Kirstin Brown, Julie Babcock, Allen McCaw, Andy Corra, Scott Roberts, Melissa May and Mark Rudolph. Online: Lisa Merrill, Melissa Smeins, Samantha Wright, Delilah Douglas, Sarah Graves, Ryan Bennett, Vanessa Ledesma, Drew Ramboll, Tom Schillaci and Todd Hennis [logged in as D. Lawrence].

EPA attendees: Athena Jones and Joy Jenkins. Online: Meg Broughton and Jessica Dugan.

Introductions and Announcements

Chara stated that she had no announcements – only vegetables.

Natural Resources Damages Update:

Ty provided an update on the Natural Resources Damages (NRD) Trust. The trust includes \$7 million in grant funding available to offset damages to natural resources caused by the Gold King Mine spill in 2015. There are \$3.5 million available now in Phase 1, and \$3.5 million set aside for Phase 2 later when a remediation plan is in place to settle other issues. Agencies and stakeholders had planned to come together by the September 30, 2024 deadline to submit projects for grant funding. Agencies include the State of Colorado, San Juan and La Plata Counties, as well as nonprofits. Colorado Parks and Wildlife is ready with a project. The other agencies decided to ask for an extension. In a May 31, 2024 letter to the trustees the agencies asked for a one-year extension. Ty and Anthony attended the meeting at which the trustees granted an 8-month extension. Stakeholders will continue meeting to assess project submittals. The trustees asked for a package of projects but the State can be separate, still holding to the same deadline.

Benthic Macroinvertebrates (BMIs) in Bonita Creek Mining District

Scott Roberts - Mountain Studies Institute (MSI)

Scott gave a detailed definition of BMIs, including photographs and videos:

- animals with no backbone
- visible to the human eye
- inhabit the bottom substrate of streams, rivers and lakes
- important food source for fish, birds; and are an integral part of the food web

- examples: adults and larva of caddis fly, mayfly, midge, black fly, stonefly, etc.
- collected using nets by disturbing substrate upstream of the net

Excellent indicators of changes in water quality:

- reflective of longer-term water quality trends
- population is closely tied to their immediate habitat
- diverse feeding habits, life styles, longevity and varying tolerances of pollution

Agencies which monitor BMIs to assess river health and habitat conditions over time:

- US Environmental Protection Agency (EPA)
- Colorado Department of Public Health and Environment (CDPHE)
- Colorado Division of Reclamation, Mining and Safety (DRMS)
- Animas River Stakeholders Group (ARSG)
- Southern Ute Tribe
- Trout Unlimited
- City of Durango
- Southwestern Water Conservation District
- Southwest Basin Roundtable

Monitoring objective is to quantify improvements in benthic community structure following implementation of remediation projects designed to reduce metal exposure. Challenges include contrasting remediation efforts from fluctuations due to natural phenomenon (i.e., drought), establish annual variability to better detect temporal trends in the future, and use consistent field and laboratory methodologies.

Since 2016, more than a dozen BPMD sites, including priority reaches, have been monitored:

- 5 on Mineral Creek and tributaries
- 6 on Animas River and tributaries
- 4 in Animas River Canyon

What has been observed?

Assessment metrics delineate a range of disturbed habitats. A higher score (>54) is more like natural, undisturbed sites; a lower score (<45) indicates impacted sites. Pattern changes are driven by physical habitat, and a prime indicator is metal concentrations in surface water (Al, Cd, Cu and Zn). Secondary indicators may be metal concentrations in pore water, sediment and macroinvertebrate tissue.

Possible impacts from metal contamination include:

- physical – lethal and sublethal, such as reduced reproductive success
- habitat alteration – metal precipitates, loss of interstitial space, dietary changes
- community – diversity loss, decrease in density, loss of more sensitive species

Other variables that affect BMI:

- drought effects; low flow, water quality changes
- floods/washouts

- spatially intermittent stream flow, subgrade flow
- unplanned mine releases

Improvements:

- Gladstone Treatment Plant:
 - SGC operated from 1997 – 2004, shut down from 2005 – 2015
 - EPA operated Interim Treatment Plant since 2015
 - Data show positive changes for BMI during above operations
- Porphyry Gulch remediation
- 2022 - BPMD CAG promoted Outstanding Waters (OW) designation in Mineral Creek using benthic data
- 2022 - other OW sites in Animas River drainage

Summary:

8 years of data - will collect 2 more years to run a physical trend analysis.

Samples are collected in the fall:

- safety is a priority consideration because streams are easy to wade
- BMI are more mature and easier to collect and identify

An overarching question: how does drought affect BMI?

Scott's PPT will be available on the CAG website.

CAG Working Group Updates

Sampling Group – Sara Burch (online)

The next sampling round will be on September 9, 2024. (UPDATED to September 16)
 Dave distributed a table of 2024 Animas River Canyon data collected to date (three sampling events). The table includes stream flow and hardness; total Al metal concentrations; dissolved metal concentrations for Cd, Cu, Fe, Mn, Pb, and Zn; TVS for those metals; dissolved organic carbon; and total bioavailable Al.

Howardsville Group – Terry suggested that the CAG get more time with EPA prior to their decision making. We need to communicate with EPA to be more informed, have time to collect and digest relevant data. What information do we need? What is possible for us to ask for?

- We would like to consolidate large reports into brief fact sheets
- It is hard to absorb large volumes of data from reports. We should identify specific needs and get brief reports from EPA

Helen Mary commented regarding Howardsville tour and what makes most sense in getting information from a Howardsville report – need to distill that large amount of information into a summary.

Delilah (NMED in Santa Fe) agrees that communication is necessary; she is learning about project participation. She wants to see some communication improvement because it is too broad and not comprehensive enough.

Todd Hennis [online – logged in as D. Lawrence], owner of Pride of the West Mine LLC, recommends a walk-through of Howardsville with CAG members. He stated there are

two simple solutions to the site. He thinks there is low-cost remediation available and he knows the comprehensive site history like no one else.

Chara stated that the CAG will consider that request and get back to him.

Treatment Group – Mark Rudolph reported that a trip around the state is planned near the end of September to look at active treatment actions on-going at other locations. Attendees will include some CAG members and interested locals. At OU2 (Mayflower) we are gearing up but not much is ready yet.

2019 IROD Inspections

The IROD came up for 5-year review. Four CAG members were invited to visit 12 of the source areas within the Upper Animas drainage that are undergoing remedial actions. The review was led by EPA staff and their consultant. The CAG members divided into two groups to facilitate viewing all the sites: 1) Chara and Anthony; 2) Helen Mary and Parker. The groups met later to combine notes and ideas. In general, progress at each site was rated as a “thumbs up”, or “needs more attention”. Here is a summary of the review of the 20 sites:

- Vermillion Mine – positive, thumbs up
- Mountain Queen (California Gulch) – positive, thumbs up
- Sunbank Group – needs more attention to ponds over time
- Columbus Mine – concern how it drains to the Animas River
- Campground 7 – needs more attention
- Campground 4 – completed, thumbs up
- Pride of the West Mine – not done
- Terry Tunnel – thumbs up
- Lake Emma – visited as a drive by
- Ben Franklin – thumbs up
- Silver Wing – pond is filling up with sediment, concern about possible burp
- Tom Moore – thumbs up

In summary, it was a good opportunity to see remedial actions on the ground; not necessarily water quality issues, but important overall.

Joy commented that the purpose of the review is a statutory requirement of the IROD to see if the remedies are meeting their objectives. When the EPA has completed these actions and the state eventually takes over the sites, it needs to give a thumbs up in advance.

Review EPAs 5-year Strategy for BPMD

Joy handed out the plan update (large colored flow chart of EPA actions). It continues to be a living working document. EPA has talked with the CAG and Silverton Planning Group about the 5-year strategy to identify areas of interest for contributing ideas. It identifies points where the community has an opportunity to provide in-depth review and comment. It is a large, detailed document versus a fact sheet. The Superfund program is a linear process, and the 5-year plan is part of EPA's adaptive management of the process.

With respect to metals loading, we can identify methods and consider priorities for remedial action: how are the methods selected in the four priority reaches? EPA plans to focus on zinc loads during low flow (fall season flow) and would like to receive and incorporate feedback from stakeholders where feasible. The intent is to improve water quality in general; is improving water quality in Silverton also a priority goal?

There are three priority areas for seeking remedies on zinc load:

- Upper Animas – Eureka, Kittimac, and Mayflower tailings; and preventing infiltration at Howardsville OU2
- Cement Creek – addressing the main draining adits; Gold King, Mogul, American Tunnel and Red & Bonita
- Mineral Creek

The colored blocks on the handout show the stages of the Superfund process at the above priority areas. What are possible remedies? The focused feasibility study looks for solutions/remedies, and helps EPA focus on where to prioritize work.

These remedial action decisions will be posted to the CAG website; for example, the Mayflower OU2 ROD in 2026.

Ty suggested that each stage block should state in parenthesis which OUs are involved, and he can put the presentation on the CAG website.

Joy mentioned as an example that they closed the Red & Bonita Mine valve, then studied changes to nearby seeps and springs (before and after the valve closure). They then opened the valve in the winter when water level was 200 feet above the valve. One consideration is to treat water at the Red & Bonita Mine prior to discharge to Cement Creek, and try to reduce the volume and metals load prior to reaching the Gladstone treatment plant on Cement Creek; could consider the same action and the Mogul Mine. Joy stated the EPA is still evaluating possible actions to reduce sources of metals loading at Cement Creek. A significant issue is costs and logistics for piping and frequent jetting required to remove iron scale. They may have contingency recommendations or remedies depending on what happens when the valve is closed; i.e., a couple of years response time is expected.

For OU3, there is a question when water comes out of the Sunnyside Mine does it become part of OU1? There remain many questions regarding water quality. They are still preparing wells to sample, and are looking at possible remedies. They need a tracer study to see connectivity.

Chara commented to EPA that the CAG met and each working group will set goals for interaction with EPA over the coming years. As Terry mentioned, our internal meetings were productive.

Chara asked who will be the new EPA contact? Joy said that we can contact any of the staff – Joy, Athena, James or Jessica, and be sure to copy Joy on all contacts.

Chara commented that CAG representation and input from all local agencies is important. The CAG would prefer summaries or fact sheets to help with stakeholder

communication. The CAG will try to read smarter going forward as we follow the 5-year strategy and review the large reports.

Russ stated that looking at the 5-year plan timeline, trying to visualize progress on the ground, at what point can we see water quality improvement? He also is interested in seeing any budget changes, burn rates of funds, and improvements due to remedial actions.

Helen May noted that all actions are “Interim”, and asked where is the “Final”?

Joy replied that it is a linear process and interconnected, so it is hard to pick a final timeline. She noted as an example the Mayflower tailings: infiltration through the tailings is part of the big picture, and all is interconnected; groundwater remedial action will follow, but it can't be the first item or even at the same time. The process needs to be stepwise and incremental.

Brian commented that the word “interim” is a good descriptor for the process, especially in CERCLA.

Helen Mary had concerns with “interim” since some remedies may not help long-term remedial solutions. For example, water treatment plant costs now versus in the long term.

Brian said in communicating with the public, interim should mean temporary, but in CERCLA it means more work is needed incrementally before the entire site is remediated.

Administrative Items

Chara had the following announcement:

The next meeting will be on October 17, 2024, at Silverton. The meeting will include a water quality presentation by the Sampling Work Group.

The CAG will have an online discussion prior to September 11 / 12, 2024.

7:48 pm

Adjourn