

Meeting Summary

Bonita Peak Community Advisory Group

August 26, 2021, 6:30—8:20 PM

Via Computer Conferencing

CAG Members in Attendance: Peter Butler, Chara Ragland, Brian Devine, Melissa May, Helen Mary Johnson, John Ott, Russ Anderson, Parker Newby, Anthony Edwards, Marcel Gaztambide, Terry Morris, and Susan Livenick. Not in attendance: Ty Churchwell, Charlie Smith, and Levi Lloyd.

Also in attendance: Linda Figueroa, Tom Schillaci, Melissa Smeins, Ben Martinez, Pat Maley, Rachel Vaughn, Rob Parker, Ryan Bennett, Lisa Tanner Banks, Taryn Chaya, Matthew Fesko, Katherine Jenkins, Scott Roberts, Louice van Vanno, Lara Rowenko, Mark Rudolph, James Hou, Alex Ratcliff, Rob Robinson, Chris Stoneback, plus a few others.

Introductions and Announcements.

Peter introduced the newest CAG member, Helen Mary Johnson, and asked her to talk about her background. Helen Mary is a geologist and worked at BLM for almost 30 years. Most of her work was with mining and abandoned mines, including ten years with gold mines in Nevada. Her graduate work was with deposition and alluvial deposits. She recently retired.

Tom Schillaci announced he is showings all five episodes of Acid Mine Nation in Durango on Sept. 26th at 12:30 at the Animas City theater. They can also be found at on Vimeo.
<https://vimeo.com/user22069198>

Peter announces that EPA has delegated authority to Southern Ute Indian Tribe (SUIT) to set water quality standards for Tribal Waters within their reservation. Lands on the reservation have a checkerboard ownership of both private and tribal lands. The proposed standards apply where SUIT has jurisdiction, and public comment will start this week. SUIT staff were on the call - Taryn Chaya and Alex Ratcliff. The Tribe's public comment period will extend until October 22nd, with a public hearing on Oct 7 at 3pm via WebEx. More information can be found at: <https://www.southernute-nsn.gov/justice-and-regulatory/epd/public-comments/> Also people can contact aratcliff@southernute-nsn.gov or 970-563-2256 for more information.

Peter noted that SUIT's proposed manganese standard of 50 ug/l is not met in the Animas River on the reservation. That low standard could have implications for mine cleanup in the BPMD. SUIT is also proposing EPA's recent aluminum criteria as a standard which is different than the state's aluminum standard.

With regard to the aluminum criteria, EPA is re-considering how labs should process aluminum samples. It appears that not all aluminum is bioavailable, and lab processing should take that into account. Peter mentioned that EPA's aluminum criteria is easily exceeded in the Animas at Cascade, yet there is an ok fishery there. Unfortunately, neither the State standards or EPA's criteria appear to be very functional for the Animas River. A Colorado group through the Water Quality Forum is starting to look at how appropriate State aluminum and iron standards are and if they should be changed. (Iron is not particularly toxic. The issue is high concentrations smother the substrate.)

Update of Current EPA On-the-Ground Activities in the Watershed

EPA Project Manager, Rob Parker, discussed current EPA activities. They are finishing up the horizontal boring alongside the Gold King Mine portal. It is about 1300' in length. Core samples are being taken to better understand the integrity of rock. Several questions were asked, and Rob responded.

EPA has drilled into Terry Tunnel from above to determine water levels behind the closure at the entrance. Some water has been pumped out, and it is of good quality. The entrance will be opened up, and a team will determine portal stability for access to the first bulkhead. The first bulk head is about 300' back, and the second is about 3000' back.

EPA is also preparing to follow the same type of drilling and water pumping at the Bandora Mine. They want to see how much water is behind the blockage at the entrance and then decide next steps.

Other planned remediation work includes re-routing the discharge from the Anglo Saxon and Mammoth mines; DRMS is covering the high lead soils at Campground 7 (Eclipse); San Juan County is going to replace a culvert at the county road by the Pride of the West Mine (Cunningham Gulch); and the property owner of the London Mine (Burrow Gulch) is installing a limestone drain in the adit in combination with a DRMS closure.

EPA is also doing more remedial investigation work. They are drilling wells and sampling the fluvial tailing between Eureka and Howardsville. They also going to use distributed temperature sensors to try to determine the locations of groundwater inflows. Peter noted that USGS and EPA did a study using both tracers and temperature sensors in California Gulch a couple of years ago and wondered how the two methods compared. James Hou with EPA said that the results of the work have not been released. USGS conducts a lengthy peer review process before it will release anything.

DRMS is working with EPA to evaluate stability of a number of mine sites. They have been visiting all the different sites to catalogue a wide range of features for further evaluation.

EPA is conducting geotechnical work on Mayflower Tailing Pond #4 for the sitewide repository. Hopefully, they will be able to move sludge from Gladstone to TP #4 in late 2022.

There is no on-going seeps and springs monitoring this year. EPA expects to release the Red & Bonita report on the bulkhead test in 2020 shortly.

Observations from Winter Sampling and Results of Sampling in the Animas Canyon over the Past Two Years.

Peter shared a number of photos from sampling the Animas about a 1/3 of a mile below Elk Creek (the 2nd or 3rd largest tributary in the canyon) in the winter. The lack of typical snowfall this past winter made access to this site feasible. It's over 13 miles round trip from Silverton on skis down the railroad tracks. The CAG collected metal samples every month except February. The main point he made was that iron, and possibly aluminum and lead, gets encased in ice because of freezing on the river bottom and because of ice dams creating short-term ponds allowing for settling of metals in ice along the river banks. These metals appear to be released as the temperatures start to rise in February and March.

The other location in the canyon where the CAG samples is around Cascade. Samples have been taken every month for two years at a site on the Animas, 1/3 of a mile below the confluence with Cascade Creek – the largest tributary in the Animas in the canyon. There is also a USGS gage below the confluence which provides flow measurements. The CAG also samples the Animas upstream of Cascade Creek, just above the confluence with Crazy Woman Gulch. Crazy Woman is the only named tributary between Needle Creek (the 2nd or 3rd largest tributary in the canyon) and Cascade Creek.

In the winter, samples are collected by riding the train to Cascade. Unfortunately, samples cannot be collected by Crazy Woman Gulch in the winter.

Peter also showed graphs of data at these sites. Generally, below Elk Creek, Table Value Standards (TVS) for aquatic life are not met for chronic aluminum, iron, zinc, cadmium, and pH. Acute zinc is also not met. Approximately 150 lbs/day reduction of zinc would be needed to meet chronic zinc TVS. This is a higher estimate than EPA has given upstream at A72, but EPA doesn't collect samples in late winter and spring when concentrations are highest.

At the site below Cascade Creek, chronic aluminum, iron, and chronic and acute zinc TVS are not met. Approximately, 120 lbs/day reduction of zinc would be needed to meet chronic zinc standards. Neither site demonstrates an issue with lead.

Peter also displayed hazard quotients for iron and zinc at these sites. The highest iron hazard quotients are generally in February and March, whereas the highest zinc hazard quotients are generally in April and May.

Meeting TVS (with the possible exception of aluminum) somewhere below Elk Creek is a goal that EPA set. It is not known how far below Elk Creek that goal may be feasible.

Rob asked if this data has been put in SCRIBE. Peter responded that the earlier half of the data set is in SCRIBE, and he plans to add the rest in this fall.

John Ott asked if there is water quality data in the canyon from when Sunnyside ran the treatment plant. At that time, water quality was better at James Ranch. Peter responded that there was no canyon data collected, but data at A72 definitely showed better water quality when the treatment plant was in operation than today.

Administrative Items

- ✓ Meeting Summaries: Melissa motioned to approve the June meeting summary, and John seconded. John moved to approve the July meeting summary, and Marcel seconded. There was no additional discussion and no objections to approval of both summaries.
- ✓ CAG discussion time is scheduled for 6 pm next Wednesday. Chara says she will not be available that day.
- ✓ Susan asks if EPA can provide a short timeline of what EPA actions are ongoing for each meeting – a summary snapshot. Peter asks if it could be sent out a bit before the meeting? Rob will do that if his travel schedule allows.
- ✓ September sampling in the Animas Canyon will occur between the 1st and the 6th. Parker and Peter will go to the two different sites. Let Peter know if someone is interested in helping.
- ✓ Future Agenda Items? *Macroinvertebrate Data, Mayflower Tailings, Site Specific Plans for Interim Remedial Actions, Report on Red & Bonita Bulkhead Test, etc.*

8:05 PM - Adjourn