

Bonita Peak CAG

Dr. Joy Jenkins
Superfund Project Manager, EPA Region 8
1595 Wynkoop Street
Denver, CO 80202-1129

RE: Comments on the 2021 Task List and Draft Five-Year Plan,
Bonita Peak Mining District

April 16, 2021

Dear Dr. Jenkins:

After our Bonita Peak Community Advisory Group (CAG) meeting on March 25th, we wanted to follow up with some written comments on this upcoming field season activities (the Task List) and on the draft Five-Year Plan developed under the Bonita Peak Mining District Site Management Plan. The Bonita Peak Mining District (BPMD) was put on the National Priorities List (NPL) in 2016, so the end of the five-year plan will represent nine years as a Superfund site.

We are dismayed that after nine years and tens of millions of dollars, it appears that no projects will be completed by EPA and partnering agencies that will substantially improve water quality other than the continued treatment of the Gold King Mine drainage. While some maintenance work at mine sites under the 2019 Interim Record of Decision (IROD) might be helpful, we do not see that work as a high priority and don't believe those projects will substantially improve water quality. The CAG recognizes that while completing the site-wide repository at the Mayflower Tailings Pond #4 will be an important step, construction by itself doesn't afford any on-the-ground water quality improvements.

Essential Questions

From our perspective, there are some high priority questions that EPA should ask itself and answer regarding the Task List and Draft Five-Year Plan.

1. If a large metal load is reduced high in the watershed, will that reduction translate to a large metal reduction downstream and a corresponding improvement in water quality and aquatic habitat?
2. Where can EPA make large environmental improvements in a relatively short period of time?
3. In the Operating Unit 3 (OU3), the fundamental question is, if and by how much does the Sunnyside Mine Pool affect the biggest metal contributors in the BPMD (the mines around Gladstone)?

4. What important information does EPA hope to obtain by drilling behind the inner bulkhead at the Gold Prince tunnel?
5. In reference to Goal #3 for the BPMD, minimizing unplanned releases, is EPA meeting the objectives of this goal by opening up mines with collapses at the entrance or doing the opposite and increasing the risk of unplanned releases?

Discussion

Question 1 & 2. The Red & Bonita mine drainage plays a central role in the first two questions. For short periods of time, the drainage from both the Red & Bonita and the American Tunnel have been run through the treatment plant at Gladstone, in addition to the treatment of the Gold King Mine drainage. The infrastructure is in place for conveyance of these drainages to the plant. According to the Final Remedial Investigation Plan, February 2021, Exhibit 3-7, the Red & Bonita drainage averages 55 pounds per day (lbs/d) of zinc, and the American Tunnel averages 21 lbs/d of zinc. That is more than half of EPA's initial estimated zinc-load-reduction needed to meet water quality standards at A72 (Exhibit 3-4). The Red & Bonita is easily the largest, untreated point-source of metals in the BPMD, and the American Tunnel is essentially tied for the second largest, untreated point-source. Running one or both of these currently untreated drainages through the treatment plant would be an excellent test for answering the first question and is also undoubtedly the best answer for the second question.

Of course, the other method of removing the metal load from the Red & Bonita drainage is to shut the valve on the pipe through the existing bulkhead. A short-term test of this method was already conducted from mid-July to mid-October in 2020. Results of that test have yet to be reported and inexplicably, reporting those results does not appear on this year's task list. *We ask that the issuance of that report be included in the Task List.*

We understand the challenges EPA currently faces with sludge handling at the Gladstone treatment plant, but those difficulties should be mitigated once the Mayflower repository is completed. We also believe that given the current drainage of about 350 gallons per minute (gpm) at the Gold King and 300 gpm at the Red & Bonita, the Gladstone treatment plant has enough redundant capacity to handle this flow twice over.

At the end of the five-year plan, there is reference to a Phase 1 IROD for OU3. That might refer to shutting the Red & Bonita bulkhead valve, driving a new tunnel to intercept the Gold King workings, or something else entirely. Regardless, it appears that EPA is not planning on permanently closing the valve on the Red & Bonita bulkhead for at least ten years after the bulkhead was installed (2015). *We think it is unacceptable for this drainage to continue to flow unplugged or untreated for another five years.*

Question 3. EPA is planning on drilling in several locations around the BPMD this year. We are perplexed as to why drilling into the Sunnyside Mine Pool from the Lake Emma area isn't included. In fact, we're surprised it hasn't already been done, since it was part of the unilateral order EPA issued Sunnyside Gold Corp. several years ago. Clearly, if EPA could have monitored the pool level when the Gold King was running at a much higher flow rate than it is today, it

would have been helpful to determine if there is a nexus between the Sunnyside Mine Pool and the Gold King Mine drainage. It's unclear how EPA can develop a groundwater hydrologic or geochemical model of OU3 without data collected from the mine pool. *Why isn't drilling into the Sunnyside Mine Pool a top priority?*

Question 4. As has been expressed in previous meetings, we don't see a strong rationale for drilling behind the Gold Prince bulkhead and believe EPA should provide one before spending the resources to drill at 12,500 feet elevation. Mine maps as well as personal observations show a connection behind the bulkhead to the Sunnyside workings above Lake Emma (meaning above the mine pool) that is approximately fifteen feet higher than the bulkhead itself. The bulkhead is perhaps 60 vertical feet below the land surface making it impossible for a lot of head to be backed up behind it. *Please explain what important data EPA will acquire by drilling this well?*

Question 5. In the Task List under the 2019 IROD, EPA discusses opening up several collapsed portals. Over the last thirty years, we do not know of any unplanned releases from portals collapsed at the entrance that were not related to heavy equipment working around the entrance. We do know of multiple unplanned releases from inside mine workings when there was no human activity around the mine site and no collapses at the entrance. We suspect that these internal releases were caused by water backing up behind a sludge or ice dam, or roof collapse until enough pressure built up for a release. If material in front of a collapsed entrance has been removed, there is nothing to mitigate or modulate an internal, unplanned release. *EPA should conduct a risk analysis to determine if opening up collapsed entrances to mines is more or less likely to cause unplanned releases.*

In addition to asking and answering the questions above, we would like to have EPA include a review and update of the 2019 Community Involvement Plan (CIP) within the five-year plan. Stakeholder interests may change over time, and it is important that the CIP is adapted to those changes.

We also want to note that EPA is focusing the next few years on the fluvial tailings between Eureka and Howardsville. This is a challenging, complex area to characterize. We have concerns that if EPA goes into this reach and removes pockets of historic tailings that disturbing the fluvial material may do more harm than good. However, if EPA is contemplating a much fuller river restoration of the area by better defining the channel, revegetating the banks, creating riffles and runs, etc., we believe the community would be very supportive of that effort. We are not sure what is possible given the geomorphology, but we believe it deserves more investigation.

Finally, while this comment letter is directed at EPA, we note that in the Five-Year Plan we see very little activity that will make any real water quality improvements in the BPMD by EPA's federal partners – the US Forest Service and the US Bureau of Land Management. Their five-year plans consist of more study and planning plus some maintenance at a few of their mine sites. Neither agency has shared any of their data publicly that they have collected over the

past several years, and neither agency expresses any plans to share data or engage with the community under their respective tasks listed in the draft five-year plan. Enabling people to evaluate all the data being collected with public monies is important for transparency and good decision-making.

We look forward to additional discussion regarding long-term plans for the BPMD and would like further discussion on the questions above at one of the next couple of CAG meetings. Some of the CAG members have over twenty-five years of experience in the Animas River Basin characterizing water quality and conducting mine remediation projects. We want to be a valuable resource to EPA for its work in the basin

Regards,



Peter Butler, Ph.D.
Chair, Bonita Peak CAG
Butlerpeter2@gmail.com
970-317-0584
www.BonitaPeakCAG.org

cc:

Senator Michael Bennet	CDPHE-John Putnam
Senator John Hickenlooper	SWCD – Jenny Russell
Rep. Lauren Boebert	EPA-Brigid Lowery
La Plata County Commissioner Marsha Porter-Norton	EPA- Doug Ammon
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