

## Upper Cement Creek Meeting Summary

ATTENDEES: Peter Butler, Bill Simon, Steve Fearn, Larry Perino, Kay Zillich, Paul Nazaryk, Kirstin Brown, Ton Schillaci, Lisa Richardson, Mike Holmes, Buck Skillen, Chris Peltz, Ernie Kuhlman, Ty Churchwell, Craig Gander, Todd Hennis, John Ferguson, Ray Ferguson, Darlene Marcus

### ANNOUNCEMENTS:

The MSI Mining and Water Conference was well-attended. About 140 people came and pretty well filled the Kendall Mountain Center.

The San Juan Resource, Conservation, and Development Council is hiring a new administrator. Nicole Fabrey who we have been working with left the position.

This past winter, BHP-Billiton had talked to the ARSG Coordinating committee about the possibility of funding some mine dump cleanup in the Animas Basin as a part on settlement agreement they were working on stemming from a lawsuit filed by some environmental groups. Paul Nazaryk with BHP-Billiton described the projects that were eventually chosen, but they did not include ARSG's proposal. The projects chosen were lower on the Animas River and on the San Juan River, closer to BHP-Billiton's operations in New Mexico. Paul said the company is still interested in potentially funding other ARSG activities in the future through another fund. And, we still have proposals that Bill Simon drafted for remediating the Bullion King in Mineral Creek and the Henrietta 1, 2, and 3 in Prospect Gulch with which we can pursue other funding.

### Updates

1. Plans for Red & Bonita: Frontier Environmental will start ventilating the Red & Bonita in the coming weeks. In the beginning of June, DRMS is planning on entering the mine to see if it's possible to identify the source of water. Peter asked if it were possible for one or two other people to accompany DRMS. Kirstin said she would check on it. Bill asked that water samples be taken of the discharge from the portal for mercury and silver when people first start walking around the workings, stirring up sediments underground. Steve suggested that the samples should probably be taken as Frontier drags hose into the mine for ventilation. He also pointed out that based on available maps, the portion of the Red and Bonita that is on the vein structures which may be a source of the water appear to be on property owned by Todd Hennis. Any actions affecting those claims may require separate land owner consent besides from the owner of the portal.
2. Investigations for in situ treatment for Mogul: Todd Hennis, owner of the Mogul Mine, expressed concerns that EPA and CDPHE had a pre-ordained plan to bulkhead the major adits of concern in upper Cement Creek. A number of people in ARSG are not supportive of bulkheads at those sites because of concerns of fractures in the area which would simply route the water elsewhere and because of concerns as to how those bulkheads could impact future mining in the area. Representatives of both EPA and CDPHE at the meeting said there was no pre-ordained plan; they are simply working with ARSG to investigate options. Todd said that he would not give permission for any investigations on his property until he had assurances from high level managers at EPA and CDPHE that there was no pre-ordained plan.
3. 3-D model: No updates were given except that Kirstin has made a movie of the model to display its capabilities. Several people wanted copies of the movie. Kirstin also said that they have the GIS locations of all the seeps that Sunnyside sampled before placing the bulkheads in the American Tunnel.
4. Addition of limestone sand to Cement Creek: Craig Gander had a little more information including some cost figures for obtaining limestone from near Monarch Pass. Unfortunately that source has a fairly low percentage of calcium carbonate. He is still waiting for some other information. There was some more

discussion as to how one could test this process to see if it could work and if there would be potential negative impacts. We hope to talk more about testing at the next meeting.

5. Good Samaritan activity: A couple of weeks before the meeting, Senator Mark Udall toured the Cement Creek drainage with several people including members of ARSG to look at draining mine sites and discuss Good Samaritan issues. The tour seemed to re-invigorate the senator to continue to push to reduce liability for Good Samaritan cleanups.

## Main Topics

Data Validation: Peter, Bill and Larry are working on the data validation. A72 and CC48 are virtually done. They plan to write up a draft rationale for what they have done with the data and then see if others in ARSG agree.

Draft RFP for testing treatment technologies: A RFP for testing technologies has been drafted by Kay Zillich, Ron Borrego and Steve Fearn. It still needs to go through some BLM processes, but it should go up on the federal website on May 25. <https://www.fbo.gov/> The reference solicitation number is L12PS00620. It is expected that review of proposals will occur by the end of June with an award by mid-July.

USGS modeling effort for Cement Creek: There wasn't too much discussion of the modeling effort. Chris Peltz with MSI said he had an extra autosampler that potentially could be used to do some diurnal sampling in Cement Creek.

Use of BLM contractor: Kay proposed that BLM should utilize its contractor to investigate what different standards (technology or otherwise) might get applied to a potential treatment plant in Upper Cement Creek and what discharge limits might one expect. It's not quite clear what might apply, BPT (Best Practical Technology) or BAT (Best Available Technology) or ARAR's (Applicable or Relevant and Appropriate Requirements). People thought a report outlining these different requirements and if and how they may apply could be quite useful. Peter asked BLM if they were willing to use their CERCLA authority beyond the American Tunnel. At this point, BLM is reluctant to do so. Somewhere down the line a decision will need to be made as to if remediation and/or treatment at the various large draining mines will be done under CERCLA or the Clean Water Act.

Metal loading in the Animas above Silverton: Currently, there is about 240,000 lbs of zinc that go by A72 each year. About 120,000 lbs of zinc come from Cement Creek. (About 57,000 lbs of zinc come out of the four large draining adits in upper Cement Creek.) Several people have been asking where does the rest of the zinc come from that goes by A72? Roughly, about 75% of the other 120,000 lbs comes from the Animas River above Silverton and 25% comes from Mineral Creek. (There is also some zinc loading through groundwater in the area around Silverton. We plan to refine these numbers in the coming months.) However, the flow in the Animas River above Silverton is much higher than Cement Creek or Mineral Creek and dilutes the concentration of metals to levels less toxic to aquatic life. There is a brook trout fishery in Animas directly above Silverton.

The issue that people have raised is that might there be some remediation that could be done above Silverton in the Animas drainage that might be less expensive than treating the major adits in upper Cement Creek. ARSG looked for opportunities for remediation up the Animas in the Use Attainability Analysis (UAA) in 2001 and didn't find many. Some of the projects that were identified have already been completed. But as part of the ARSG effort, we should probably revisit the tracer study and other work done in the Animas drainage to show what can and can't be done.

Total lead issues below Silverton: As part of an effort to track down where lead may be coming from in the lower Animas River, Buck Skillen took water samples during peak runoff in early May at A72, Bakers Bridge, and 32<sup>nd</sup> St. in Durango. The objective was to sample the same parcel of water as it moves downstream and see how the total lead concentrations may change. It takes about 12 hours for water to flow from A72 to Durango during spring runoff. Hopefully we will learn something when the sample analyses comes back.