

## Summary for Upper Cement Creek Working Group Meeting 1/19/12

ATTENDEES: Peter Butler, Bill Simon, Brian Meinhart, Ken Portz, Tom Schillaci, Darlene Marcus, Scott Streit, Nathan Longenecker, Kirstin Brown, Chris Peltz, Ron Borrego, Larry Perino, Ray Ferguson, John Ferguson, Steve Fearn, Lisa Richardson, Kay Zillich, Chuck Wanner, Ernie Kohlman, Edward Epp, Todd Hennis, Ty Churchwell.

The 2010 Fishery Report for the Animas River from the Division of Parks and Wildlife is available. It includes results of electro-shocking both around Durango and in the Animas Canyon (between Silverton and Bakers Bridge). We'll discuss the results at later meeting. Peter said he would email a copy to the group.

There is an Issues Formulation Hearing before the Colorado Water Quality Control Commission at 9:00 on Feb. 13<sup>th</sup>. The hearing will be used by the Commission to decide the issues it will address at the September Rulemaking Hearing which will pertain to water quality standards in the San Juan and Gunnison watersheds. Usually, the Commission holds a hearing on the San Juan and Gunnison watersheds once every five years. The Sept. meeting will be held in Durango.

It is unlikely that ARSG will participate in the Sept. rulemaking hearing. However, ARSG may want a rulemaking hearing to consider changes to water quality standards in the Upper Animas Basin sometime in the next couple of years, potentially as part of a solution to the Upper Cement Creek issues. Peter recommended that ARSG appear at the February hearing to update the Commission on recent developments in the Animas River Basin and to let them know that a request for a hearing specifically for the Animas could be forthcoming.

Chris Peltz with the Mountain Studies Institute (MSI) talked about a mining and impacts of mining conference that MSI and the Uncompahgre Watershed Group want to put on in Silverton on April 26<sup>th</sup>. Chris asked if ARSG would want to be a sponsor and if several ARSG members would want to be on steering committee to help develop topics for the conference. After some discussion, the group agreed to be a sponsor and several people volunteered to be on the steering committee.

Ed Epp with BHP-Billiton (which has coal mining operations in northwestern New Mexico) briefly described the company's Community Investment Fund. He said that Fund works a lot with community organizations, but hasn't worked much with organizations involved in environmental issues. The company would like to become more involved in the environmental arena, and would like to get more environmentally-oriented project applications to potentially fund. The group was quite interested in filing an application. The funding cycle begins in late spring – early summer.

Peter relayed information about plans for Red & Bonita from Steve Way at EPA. Steve said their plan this summer was to stabilize the portal and make it safe for access. Then they would like to go inside to determine where the water is coming in and what might be done about it. He was very open to having other members of ARSG with underground experience join in with the exploration.

Kay Zillich briefly described what BLM will need to substantially contribute to any potential solution to the Upper Cement Creek issues. BLM has CERCLA authority which could be used for projects for reducing metal loads, but there is certain information and reports they need, such as a risk assessment, in order to participate. We plan to have a more detailed discussion of federal agencies' (BLM and EPA) needs and how they could support the ARSG process at our next meeting.

Larry Perino presented his initial zinc loading analysis, examining zinc loads at A72 and what is coming from the four major draining adits in Upper Cement Creek. He looked at zinc loading and dissolved concentrations

at A72 pre-consent decree, during the consent decree, and over the past five years. While for most months, zinc concentrations have increased over the past five years over earlier years, May and June concentrations have gone down and are meeting those monthly standards.

Larry then subtracted all the zinc loading attributed to the four adits from the zinc load at A72 over the past five years, calculated what the concentrations would be without that load and compared those concentrations to the actual monthly standards. The result is that without the four adit loads standards would only be met 3 months of the year, including May and June which are already meeting standards. Larry is planning to continue this analysis for other metals and at CC48.

The group discussed data needs for the next summer. There was some concern that we aren't fully characterizing all of the relative new metal loading in Upper Cement Creek and that we really need some flow and sampling data from the Silver Ledge up South Cement Creek. No data has been collected since the bulkheads were put in place. Apparently, the workings go back to the Bonita fault. The Silver Ledge has always had fairly low metal concentrations, but it has a large flow making the load great enough for it to rank in ARSG's top 32 draining mine sites.

The group also discussed if it should ask EPA to continue doing all the sampling it has done over the past three years in upper Cement Creek and at the gages. The water quality in the main discharging adits has changed some over time, so there was consensus that they should continue to be monitored. If the adits are monitored, it makes sense to continue monitoring the four gages. We haven't yet seen the 2011 sampling of all the seeps and streams, so it's hard to evaluate if there is a need to keep sampling them. We may take this up again in February.

There was discussion about treating the mine pool behind the bulkhead in the Mogul mine. Essentially, treatment involves adding sugars to the pool to try to feed the anaerobic bacteria which raise the pH and precipitate the metals, hopefully sealing the sides of the mine pool. It been done at least partially successfully in other mines. Ron Borrego explained the process isn't that difficult, but getting good mixing in the mine pool can be challenging. The Mogul could be a good candidate. It's not especially large and there is shaft which provides access from above. Todd Hennis, who owns the Mogul, thought the shaft might intersect the mine pool about 1500 feet back behind the bulkhead so that it might mix quite well. He said that the treatment could work, and it won't hurt to try it. There is drainpipe through the bulkhead for sampling purposes. The Mogul is also the farthest main draining adit from Gladstone and would be the most difficult drainage to pipe to a treatment facility.

In preparation for next summer, the group felt that the technology sub-group needs to meet before the next February meeting to develop criteria for evaluating different technologies. In addition, there are at least three main issues that need to be addressed in preparation for next summer: sampling, who is going to do what; potential technology testing; and potential mine pool treatment.

For the next couple of meetings, we need to prepare for summer and we need more data analysis. Larry Perino is going to put together spreadsheets for the other metals besides zinc. We need to gather all the 2011 data. And we need to examine EPA's stream and seep data in Upper Cement Creek more closely. We also need to better understand the federal agencies needs and how we can work together to support them.