

ARSG MEETING SUMMARY

Feb. 20, 2014

ATTENDEES: Peter Butler, Steve Fearn, Pete McKay, Lisa Richardson, William Tookey, Chris Tookey, Kay Zillich, Darlene Marcus, Larry Perino, Ernie Kuhlman, Kirstin Brown, Tom Schillaci, Steve Way, Ray Ferguson, Paul Nazaryk, Jason Fagette, Chris Peltz, Maggie Hevie, Scott Roberts, Anthony Edwards, Chase McAllister, Mark Esper, Kevin Baldwin, Bruce Stover.

ANNOUNCEMENTS:

- The InnoCentive Challenge has been posted. The end date for solutions to be submitted is March 8th. Over 200 solvers have registered to look at the challenge. We should get any submitted solutions one to two weeks after the 8th.
- Tom Schillaci has updated the Good Samaritan video. It is posted at <http://youtu.be/XkjFdgshv1Y>
- The 4th Annual San Juan Mining Conference is Apr. 24-25 in Creede. It is sponsored by Mountain Studies Institute, Willow Creek Reclamation Committee, Uncompahgre Watershed. Please visit the MSI website for more information.
- Peter Butler is no longer on the Colo. Water Quality Control Commission. Chuck Wanner has been appointed to take his place. Fortunately for us, Chuck has attended a number of ARSG meetings and knows our history very well. Generally there are only two appointees from the Western Slope on the Commission.
- Steve Fearn reported on Ouray purchase of water rights for an old transmountain diversion from Mineral Creek to Red Mountain Creek near the top of Red Mountain Pass. The concern is that the diversion could take good, clean water from the basin and reduce the amount of dilution in Mineral Creek. The Southwestern Water Conservation District has intervened in the case to insure that no more than the historical diversion will be taken. The Forest Service has not yet decided if they also want to intervene.

Topics

Peter handed out a sheet listing a number of actions and activities that have been accomplished or are on-going related to upper Cement Creek over the past couple of few years. Some of those items include Sunnyside Gold's \$6.5 million offer, an exchange of a large number of documents between EPA and Sunnyside, the gathering of data and geochemical modelling efforts of EPA, BLM, and USGS, and ARSG's efforts to find less expensive ways to treat mine drainage including some potential pilot testing this year.

The list launched a long discussion, particularly from the San Juan County Commissioners, about the need to make progress towards a solution. From the Commissioners standpoint, all they see is a lot of studies and little action. Pete McKay indicated that there is more unease about not taking action, and more questions from downstream interests in La Plata county that they cannot answer. Ernie Kuhlman invited EPA to come to a future San Juan Commissioner meeting to better understand the implications of a CERCLA designation.

There was also much discussion about why the studies are needed and how they can lead to funding for a solution. It was noted that ARSG can only do so much. In particular, funding and arrangements for long-term maintenance are steps about which individual entities involved in ARSG are going to have to make some decisions. Steve Way with EPA said he thought EPA would be done reviewing documents from Sunnyside Gold in a few weeks and then discussions between EPA and Sunnyside Gold about a possible settlement agreement could be initiated.

Red & Bonita – Steve Way gave a powerpoint presentation on the underground investigations of the Red & Bonita from last summer. He gave a number of reasons why he thought putting in a bulkhead would be a good next step. At certain times of year, the Red & Bonita is the largest mining-related source of metals in the Animas Basin. (At other times, the Gold King #7 is the biggest loader.) It emits close to 300 gpm. While most people believe there will be some seepage around the bulkhead and increased drainage may be forced out nearby mines or springs, if the reduction of metal loading is as much as possibly 50%, that would be a positive development. If there are large unintended consequences from the bulkhead installation, a pipe and valve through the bulkhead could be opened, and the situation could be returned to the pre-bulkhead status. The bulkhead and pipe would also provide a collection point if at some point it was decided to treat the drainage as opposed to damming it. There was also discussion about installing plumbing behind the bulkhead to allow for mine pool treatment if needed once the bulkhead was in place. EPA said they could fund the bulkhead. Engineering studies could be done this summer with the bulkhead installation coming in 2015. In addition, if possible, EPA would like to open up the Gold King #7 level to see what is going on inside with regards to water inflow to the workings before installing the bulkhead in the R & B. Overall, the group supported both ideas.

Wetlands Treatment – The group discussed a proposal from AMEC for conducting a scoping study for using wetlands treatment in upper Cement Creek, doing some bench-scale testing of different water sources, and a pilot testing on site. There was quite a bit of support for the concept, but the group felt it needed to better define what the scope of the initial stages of the project should look like. The technical workgroup has discussed the proposal a couple of times and has looked at landownership maps to determine who owns what lands that might be suitable for a wetlands treatment system. The technical workgroup thought that there are possibilities for wetlands treatment for all four major discharging adits. The technical workgroup's recommendation was to first bench-scale test water from the American Tunnel. This would be the best site for pilot testing since it is accessible in winter and this site will probably need some type of treatment in the future. In addition, the quality of the water coming from the American Tunnel is very similar to the drainage from the tunnel before the last two bulkheads were put in. Some people have suggested removing these two bulkheads to centrally collect drainage from several sites, so bench-scale and pilot testing this adit could be beneficial in several ways.

It's somewhat unclear where funding might come from for the initial wetlands work. Sunnyside Gold is reluctant to spend any of the \$6.5 million it has offered until it has reached a settlement agreement with EPA. It is quite unlikely that BLM will have any funding for either the wetlands work or any potential testing of an electro-coagulation system this summer (which we discussed several months ago).

It was also noted that there are other engineering firms that have wetlands treatment experience and maybe an RFP should be drafted. That could slow down the process and the installation of a pilot treatment before next winter may not be feasible. There is quite a bit of public pressure to get something on the ground soon. Ideally, the group would like to get a pilot project going so that it can be tested during winter.

Spring sampling of the Animas River above Silverton – We briefly discussed sampling at the Howardsville gage and A68 in April. The rationale is that zinc, cadmium, and manganese all reach high peak concentrations during this month at A68. If ARSG is going to propose any water quality standards changes at A72 below Silverton, we need to have a better understanding of where this April metal loading is coming from, why it is so high in April, and if anything can be done to reduce this loading. While we have evidence that much of the metal loading above A68 comes between Arrasta Gulch and A68 during other times of year, we don't have evidence as to where the loading comes in during this peak concentration month. BLM and River Watch are going to (hopefully) collect weekly samples at the Howardsville gage and A68 starting in late March through April to help better define where the loading is coming in to the river.

Potentially For March:

Innocentive update

Evelyn test results

Electro-Coagulation test results

Arrastra Gulch

Sampling above A68