

Meeting Summary for Upper Cement Creek Working Group Feb. 16, 2012

ATTENDEES: Peter Butler, Steve Fearn, Bill Simon, Kirstin Brown, Craig Gander, Kay Zillich, Steve Way, Marilyn Null, Tom Schillaci, Larry Perino, Lisa Richardson, Ray Ferguson, Ken Portz, Brent Lewis, Bruce Stover, Edward Epp, Darlene, Marcus, Ernie Kuhlman

Brent Lewis with the BLM abandoned mined land program gave a presentation on BLM's CERCLA process and what documentation BLM needs to utilize CERCLA funds. The group had a number of questions, and there was a lot of discussion. BLM can fund smaller AML remediation projects (up to several hundred thousand dollars) through their regular budget process. Anything larger would probably have to be funded through the Dept. of Interior's Central Haz – Mat fund.

The CERCLA process can include either a removal action or remedial action. Removal actions tend to be smaller and less complicated and BLM has done several removal actions at mine sites in the Upper Animas Basin already. Overall, the processes that BLM would need to work through are not that different for removal actions versus remedial actions. Much of the information ARSG has already put together and is planning on developing in Upper Cement Creek Working Group can be used by BLM to cover most of their needs, but BLM will need to package that information into their CERCLA document which for a Removal action is called and EECA (Engineering Evaluation/Cost Analysis).

The differentiation between a removal action and remedial action is a little more formalized for EPA. Generally, a removal action is limited to \$2 million dollars and must be completed within a certain timeframe. A remedial action is more complicated and more long-term and may utilize Superfund money.

The group did not get into a discussion of identifying "potential responsible parties" (PRP's) or potential cost recovery actions under CERCLA. Any CERCLA action by BLM, EPA or CDPHE would require a process to identify PRP's. However, contributions, if any, by a PRP is considered on a case-by-case basis.

Kirstin Brown with DRMS demonstrated some more of the work done on the 3-D model of mine workings and faults in the Upper Cement Creek area. She has added a water table layer with the last known water level measurements behind the first bulkhead installed in the American Tunnel. She hopes to add shafts between mine levels and any information on the Silver Ledge mine to the model.

Because of time constraints, the group did not look at any data. Larry Perino said that he had almost completed spreadsheets for the metals other than zinc for Cement Creek and A72. Larry has been examining the potential change in concentrations at A72 if one simply removed the loading from the four main draining adits. Removing all zinc loading from the adits appears not to be sufficient to meet water quality standards at A72. Removing all the loading of other metals of concern may be sufficient to meet water quality standards at A72 for those other metals.

Peter Butler stated that while water quality standards are not being met at Bakers Bridge, they are being met at Trimble Lane and 32nd St. in Durango, the next two downstream monitoring stations. Standards are being met primarily because of higher hardness concentrations downstream of Bakers Bridge. There is also more dilution with the addition of Hermosa Creek water.

Bill Simon relayed a phone conversation that he and Peter had with several people at EPA about sampling this summer. The thought is to drop some of the instream sampling points in Upper Cement Creek, although not all of them and to continue sampling several adits. The Silver Ledge would be added to the adit sampling. EPA

would like to have a sampling effort in late May for high flow and October for low flow. ARSG would also like to see more sampling than two events for the draining adits.

We now have 2011 data from EPA, USGS, and Bureau of Reclamation. The only outstanding data for 2011 needed is from RiverWatch. None of this data has been put into any of our analyses but will hopefully be included by our March meeting.

Kay Zillich summarized the technology treatment sub-group meeting. The sub-group considered pros and cons of different types of treatment technologies. BLM will have their consultants do a scoping of these various technologies to further narrow down treatment options. In addition, the sub-group discussed different options at different adits and actions might occur this summer. The table below from Kay summarizes the discussion:

LOCATION	TECHNOLOGY OPTIONS	THIS YEARS ACTIONS
Mogul	In situ mine pool treatment followed by sorbent media treatment of the effluent	<ol style="list-style-type: none"> 1) Make a plan for test injection and monitoring 2) Read pressure to know level of mine pool 3) Look at fractures for possible grouting at bulkhead
Red&Bonita	<ol style="list-style-type: none"> a) In situ treatment (build plumbing to optimize mixing, etc, then bulkhead), or b) Convey to treatment plant 	<ol style="list-style-type: none"> 1) Ventilate 2) Look at geology for bulkhead and water inflow for inflow control
Gold King 7	<ol style="list-style-type: none"> a) Control inflows, convey remaining to treatment plant b) Convey all flow to treatment plant 	<ol style="list-style-type: none"> 1) Consider whether could be opened for underground investigation
American Tunnel	<ol style="list-style-type: none"> a) Convey current flow to treatment plant b) Remove one or two bulkheads to change water flow of other drainers, convey increased flow to treatment plant 	<ol style="list-style-type: none"> 1) Contract pilot-scale test of American Tunnel water with Blue Sky and/or Tusaar, as funding permits
Grand Mogul Gold Point Pride of Bonita	<ol style="list-style-type: none"> 1) Sorption media 2) Sulfide precipitation 	(note: gathering up Grand Mogul water could be difficult. Patent issues with calling a potential treatment a “reactive barrier wall”)
Silver Ledge		<ol style="list-style-type: none"> 1) Sample to see whether load has increased

The group discussed who might take the lead for this year at each adit. EPA will lead at Red & Bonita. BLM will lead at American Tunnel. Potentially both EPA and BLM may sample Silver Ledge. At the Mogul, we decided that DRMS would do field mapping of fractures for possible grouting, and we hoped DRMS and/or Todd Hennis could read the pressure gage at the bulkhead. For the other sites, it’s still unclear who might lead.

The technology treatment sub-group is not planning on meeting before the next stakeholders meeting in March. At the March meeting, the Upper CC workgroup will look at more data and try to determine what the load reductions targets should be.

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ANNOUNCEMENTS:

Peter reported that the ARSG presentation before the Water Quality Control Commission went well. This was really an opportunity for ARSG to have a presence in Denver where a lot of regulatory decisions could be made that would affect activities in the Upper Animas Basin.

No updates on the MSI Mining and Mining Remediation Conference scheduled for April 26th in Silverton. ARSG is a sponsor of the Conference.

EPA is putting on technical a conference on hardrock mine remediation in Denver, April 3-5. No agenda has yet been published.

Topics

There was a short discussion of the 2010 Animas Fishery report from the Div. Parks and Wildlife. This report has been emailed out previously to the ARSG email list. DPW electro-shocks the Animas River every other year in and around Durango, and electro-shocks the Animas Canyon below Silverton every five years. Fisheries in both areas have recently exhibited declines, especially in the Canyon. Jim White, the author of the report, attributes the decline in Durango to high temperatures and low flows. He attributes the decline in the Canyon to increased metal loading from the Upper Animas Basin.

There has been some new activity regarding Good Samaritan legislation. Darlene Marcus arranged a meeting for Peter and Bill (and Steve who wasn't able to attend) to meet with Congressman Tipton in Durango to discuss potential legislation. The congressman is certainly interested, but with the November elections coming, it may be best to lay the groundwork and build up interest now, and actually introduce legislation next year.

Lynn Padgett, a Ouray county commissioner is trying to develop more interest in Good Samaritan legislation within the Colorado County Association with the hope of getting the National Association of Counties interested as well. She has talked to the Nevada Counties Association, and they are very interested in lending their support.

Sen. Mark Udall recently gave a speech (on the Senate floor) on the need for Good Samaritan legislation and highlighted work done by ARSG and Trout Unlimited in different parts of Colorado. Senators Udall, Bennett, and Boxer sent a second letter to EPA requesting more input about what might be done administratively to reduce liability for Good Samaritans.

There was discussion of updating the Animas Watershed Plan. This is a document that primarily Bill put together many years ago, and it needs to be updated if ARSG is to apply for more NPS 319 funds. Bill had some suggestions as to how it could be updated. We have some 319 funds set aside for this purpose.

The group got some updates on the ASARCO and Standard Metals settlements, but there was not much to report. BLM is interested in acquiring some of the ASARCO lands in Arrastra Gulch. Craig Gander with CDPHE, which is working with the trustee of the ASARCO settlement fund, said that the state would like for BLM and San Juan County to work out an acceptable agreement together regarding the lands before they would talk with the trustee. The County is concerned about losing tax revenue if private lands move into the public domain. There were some concerns raised that if all the lands were transferred that the trust might want use the \$4 million dollars slated for San Juan County environmental remediation somewhere else. Craig said that state would be mindful of that possibility and would not support the land transfer if there were an effort to transfer the funds elsewhere.

BLM said there is little to report on the Standards Metals settlement. Apparently, several hundred thousand dollars have been agreed upon, but there could be more. How the funds would be utilized is not entirely clear.

This year, the San Juan and Gunnison Basins are being given priority for 319 NPS grants. They will not be in priority again for another five years. The group discussed some potential projects throughout the Upper Animas Basin. The sites that might be the best potential candidates for remediation include the Bullion King dump in the Mineral Creek Basin, Henrietta 1,2,3 , the Mogul, and Grand Mogul dumps in Cement Creek Basin, and the Columbus Mine (for bulkheading) in the Animas Basin above the Cement Creek confluence. There was some question as to if sites in Cement Creek would be competitive candidates for 319 funding because the water quality impacts of those sites is small compared to the four big drainages in Upper Cement. We are interested in feedback from people about which site might be best for a 319 project.

Post Script: This topic was not discussed at the meeting, but this summer we do need to periodically sample the Koehler and check the results of the grouting project from late fall.