

## **Bonita Peak Community Advisory Group Meeting #4 - April 25, 2019 MEETING NOTES**

The Bonita Peak Community Advisory Group (CAG) met on April 25th from 3 to 6 PM at the La Plata County Fairgrounds. Fifteen of the 17 CAG Members were in attendance initially: Peter Butler, Ty Churchwell, Paul Montoia, Charles Smith, Chara Ragland, Anthony Edwards, Larry Perino, John Ott, Melissa May, Jenna Emerick, Terry Morris, Parker Newby, Levi Lloyd, Brian Devine, and Marcel Gaztambide. Dominique Edgerly arrived later during the meeting. Approximately a dozen members of the public, six people from EPA and one person each from BLM and the Div. of Reclamation, Mining, and Safety (DRMS) were in attendance.

As chair, Peter opened the meeting with introductions by CAG members and other attendees. Then Marcel made a motion to approve the previous meeting's notes. Levi seconded the motion; there was no discussion, and the March 2019 Meeting notes were approved unanimously.

Independent filmmaker, Tom Schillaci, has previously made a request to film the meeting, but then he subsequently withdrew the request.

Peter announced that the San Juan Mining Conference and Innovation Expo are both being held in Silverton the last week of September. The Conference will be held on Tuesday, the Expo on Thursday, and tours of mine sites on the day in between. Abstracts for those wanting to present are due May 1st. The Expo in particular could conflict with our regular CAG meeting, so we will have to decide if and when we will want to meet. Paul suggested that perhaps the CAG could have a booth or something at either the Conference or Expo. Peter said he would check into it.

### **Aquatic Baseline Ecological Risk Assessment (BERA)**

The main topic for the meeting was a presentation and discussion of EPA's Aquatic Baseline Ecological Risk Assessment (BERA) with the addition of some of EPA's ecological goals for the BPMD site and a brief summary of the metal loading tool EPA is developing. Andrew Todd, an aquatic toxicologist presented the BERA. Andrew emphasized that the BERA assessed risk from all metals in the water column and sediments to aquatic life and did not delineate if the sources of metals was natural or not. Natural metal loading will be considered in determining the feasibility of removing metals from the system in the future.

The BERA, which is over 2000 pages, was developed with the assistance of the Biological Technical Advisory Group (BTAG) which consisted mostly of government agency biologists. The BERA used several lines of evidence to evaluate risk to aquatic life in numerous stream segments throughout the Animas Basin down to Durango. The study evaluates metal concentrations, habitat and temperature. Cement Creek was left out of the assessment, because it is not believed that any substantial aquatic life has ever lived in the creek.

To evaluate risk, a large and varied data set collected by EPA over the last three years was compared to various thresholds found in scientific literature or those used for water quality standards. If certain risks can be moderated or mitigated, aquatic life may be improved in certain

segments. Andrew walked through several examples of what they found, often using the concept of hazard quotients. A hazard quotient is a data point of metal concentration divided by a threshold or standard for that type of data. Hazard quotients greater than one exceed the threshold.

Based upon these investigations and others, EPA has determined some initial aquatic life goals for the BPMD site. Dan Wall from EPA described these goals. The first is to improve water quality to Colorado Table Value Standards (TVS) for aquatic life in the Animas River downstream from Silverton below the confluence with Elk Creek. (TVS are standards designed to protect 95% of the aquatic species that would be expected in a stream segment.) Dan acknowledged that the aluminum TVS may not be attainable because of natural sources.

Another goal is to improve existing aquatic life conditions in three other locations where fish have been found. They include South Mineral Creek, the mainstem of Mineral Creek from the confluence with Mill Creek to the confluence with the Middle Fork of Mineral Creek (the drainage that leads to Ophir Pass), and the Animas River from Minnie Gulch to the confluence with Cement Creek.

EPA's two other initial goals are to stabilize sources areas through the Interim Remedial Action Plan (IRAP) and to minimize unplanned releases from mines that might have the potential to blowout.

CAG members and some audience asked a number of specific questions throughout these presentations.

Andrew Todd then briefly described the loading tool EPA is developing. By measuring stream flow and metal concentration, metal load can be calculated, typically in pounds per day. EPA is calculating net load between different sampling sites which usually bracket mine sites and other potential inflows like tributaries. By removing some of the load at certain locations, the effect on water quality downstream can be calculated. EPA has only examined metals that are considered conservative such as zinc, cadmium, and manganese which generally stay in their dissolved form in the Animas. Some other metals like iron and aluminum are more reactive, sorbing to particles and changing phases with changes of pH. Simple mass balance calculations may not accurately indicate changing metal loads in different stream segments for these more reactive metals. Some CAG members stressed the importance of estimating how much metal load can actually be removed from a specific mine site. It may be much less than the incremental increase in load seen between sampling locations bracketing a mine site. Development of the loading tool is an ongoing effort.

Because of a shortage of time, the Technical Assistance Grant (TAG) discussion was tabled and will be discussed at a future meeting.

## **ADMINISTRATIVE ITEMS:**

EPA has recognized the Bonita Peak CAG as a community advisory group for the BPMD Superfund site.

**Future Agenda Items:** There was a discussion of agenda items for the next meeting and for the long-term. Some of the possible agenda items include: legal issues, including the Sunnyside Gold consent decree which we didn't get a chance to discuss in March. While the CAG won't be involved in the various legal issues, those issues are major drivers in determining actions that may occur at the site and having some understanding of them will help provide context to the group. Kirsten Brown with DRMS has some presentations on the effects of bulkheading and on a survey of mines in the Animas Basin that may have backed up water. Sunnyside Gold has done a lot of investigations on Mayflower tailings ponds and if they are a potential source of metals to the Animas. Marcel noted that several CAG members had discussed mechanisms to disseminate information and maybe a sub-group should be formed to investigate further. EPA should soon be releasing its Human Health Risk Assessment and a final record of decision (ROD) for the interim remedial action plan (IRAP) proposed last summer. Peter suggested that the CAG take a tour of mine sites in late June. There is no shortage of potential agenda items.

Ty asked the group to look at the Bonita Peak CAG website and let him know what else should be on it.

## **PUBLIC COMMENT, ANNOUNCEMENTS AND UPCOMING EVENTS:**

The 4<sup>th</sup> Annual Animas and San Juan Watershed Conference will be in Farmington, NM on June 19-21<sup>st</sup>. A couple of CAG members are on the organizing committee. Go to <https://animas.nmwrri.nmsu.edu/2019/> for more information.