

**Snake River Watershed Task Force Core Team Meeting**  
**USFS Region 2, 740 Simms St, Golden, CO 80401**  
**April 7, 2016**  
**Meeting Summary**

**Participants**

Thomas Chapin (U.S. Geological Survey), Ryan Dunham (Environmental Protection Agency), Jeff Graves (CDRMS), Brian Lorch (Summit County Open Space & Trails), Martin McComb (Environmental Protection Agency), Paul Peronard (Environmental Protection Agency), Rob Runkel (U.S. Geological Survey), Elizabeth Russel (Trout Unlimited), Bill Schroeder (Environmental Protection Agency), Paul Semmer (U.S. Forest Service), Tim Steele (TDS Consulting), Andrew Todd (U.S. Geological Survey), Lane Wyatt (Northwest Colorado Council of Governments), Julie Shapiro (Keystone), Jonathan Geurts (Keystone)

**Action Items and Next Steps**

- Paul Peronard and Kerry Guy will arrange for May sampling this year. Bill Schroeder will contribute to the effort with time and personnel.
- Paul and Kerry will adapt and modify a Sampling Analysis Plan, which they will send to Julie Shapiro when complete, who will forward it to the group.
- Group members should send map corrections and additions to Ryan, who will make the changes. An initial recommendation was to include an expanded inset of the Pennsylvania Mine locality on the map.
- Jeff will provide Keystone with a range of dates for the August field trip, and Keystone will poll the group to determine the best date.

**Discussion Notes**

Julie Shapiro opened the meeting and reviewed the agenda.

**Pennsylvania Mine Update**

Jeff Graves updated the group on the Pennsylvania Mine work. CDRMS is working with the Colorado Youth Corps to plant 2,500 lodgepole pine trees around the mine site this summer. Construction will begin on the final bulkhead at the C-level in August.

At the time of this meeting, the F-level adit is draining at 5 gallons/minute. In addition to stanching flow, the F-level bulkhead prevents potential blowouts from water. The F-level bulkhead is holding, and the flow currently coming out of it seems to be shallow in origin, flowing through cracks between the bulkhead and the opening of the adit.

Paul Peronard updated the group on the aboveground work. First this summer, his crew will be finalizing work on the access roads and up Cinnamon Gulch. Jumbo Mine was tabled after the Gold King blowout, and the proposal is currently under internal review. Pending approval, work will commence the week after July 4<sup>th</sup>. It is the plan to do the assessment of Sts. John Mine this summer, as well.

- Brian Lorch added that the Jumbo Mine landowner has granted his approval for the work.

**Monitoring Transition**

Thomas Chapin reviewed updates on the relative success of different monitoring techniques. Minisipper samples seem to map well to in-stream Hobo conductivity loggers for heavy metal concentrations, except for particle reactive elements (e.g. copper and lead). Inexpensive STICs seem to capture the same basic relative changes, and may therefore be useful for reconnaissance. Some STICs

malfunctioned due to particle or electroplate build-up of iron and aluminum oxides on the electrodes, though this may be resolved by switching from chrome to gold pins.

Core team members discussed water sampling methods, including the following exchanges.

- Monitoring in this case has two broad goals: 1) Assessment of the overall health of the watershed, and 2) Measuring the progress made by successive projects, e.g., are metal concentrations improving/stabilizing over time?
- STICs seem promising as a low-cost technology for long-term monitoring of the sites (specifically, SW-050, SW-049, and SW-047 (two of these three sites are needed), SW-158, and SW-82)), times (e.g., spring runoff) and non-particle reactive metals of concern (e.g., zinc and cadmium).
  - o The best data points for measuring progress may come from winter base flow grab samples of site 049, which is relatively accessible. These, if coupled with STICs, might be enough to establish a correlation between mine site actions and water quality changes.
    - It would also be good to get high flow grab samples in May or June.
  - o It would be informative to be able to target in-depth sampling to surge events, but the expense of calibrating a pressure transducer and the logistics of quickly responding with personnel may be beyond the capacity and needs of this group in the long term.
- A localized network of students or other interested citizens may be able to respond relatively quickly to surge events, though the sampling locations would need to be readily accessible. Volunteers could also be utilized for other long-term monitoring needs.
- At this point, a solid monitoring baseline has been established with more accurate and expensive methods (e.g., flow sampling to develop load ratings curves). Now, these methods should be left in place to test the quality of correlation with the intended long-term economical methods and tools before these leaner methods are left in place by themselves.
  - o The EPA can continue to fund the status quo methodology for another season to allow for this testing.
  - o The USGS can contribute time to setting this up.

### **Partner Updates**

Core team members updated the group on relevant developments happening in their own circles, to which other members responded.

- Lane Wyatt reflected on his desire to establish a foundation to maintain the momentum of the group. He asked group members for ideas about entities that should be approached for funding.
  - o This question should be addressed in August, pending more information about the cost of long term monitoring.
- Paul Peronard reflected that the EPA is now requiring lengthier internal review than before the Gold King Mine blowout. This means that he will have less flexibility to respond with funding than he did previously.
  - o One member noted that he sent a letter to EPA and to the relevant Congressional delegates in support of the agency's mine reclamation efforts on Peru Creek.
- Brian Lorch noted that the Summit County Commissioners have asked for an update on the successes and challenges of the Pennsylvania Mine work.
  - o Jeff Graves offered to deliver a presentation if desired.
  - o Rob Runkel will draft a monitoring update for their reference.
- Elizabeth Russel observed that Trout Unlimited has not been focused on Peru Creek lately.

- Andrew Todd invited group members to participate in a flyathlete event this year, of which he is organizing several.
- Ryan Dunham noted that Lancaster Mine is on the docket for 2016, and that he would work with Paul on funding for a site assessment of Blanche (Climax) Mine in 2017.
- Rob Runkel observed that the Snake River map should include an inset of the monitoring sites adjacent to the Pennsylvania Mine.
- Tim Steele reflected on his ongoing desire for reinstating Clear Creek monitoring as well as continuing some form of Peru Creek/Snake River monitoring.

**Adjourn**