

**Snake River Watershed Task Force
Core Group Meeting
Monday November 11, 2016, 10 a.m. to Noon MST
Denver Federal Center (W 6th Ave & Kipling, Lakewood, CO), Building #53**

Meeting Summary

Participation: Jeff Graves (CDRMS), Brian Lorch (Summit County Open Space & Trails), Paul Peronard (Environmental Protection Agency), Tom Probert (U.S. Forest Service), Rob Runkel (U.S. Geological Survey), Paul Semmer (U.S. Forest Service), Tim Steele (TDS Consulting), Andrew Todd (U.S. Geological Survey), Lane Wyatt (Northwest Colorado Council of Governments), Katie Walton-Day, (U.S. Geological Survey), Thomas Chapin (U.S. Geological Survey), Deb Phenicie (Trout Unlimited), Julie Shapiro (Keystone Policy Center), Caroline Thompson (Keystone Policy Center)

Next Steps:

- The next meeting will take place in April 2017 (Keystone will poll)
- Rob will look into iron plots for wetlands from other years to explore questions related to leakage
- Lane Wyatt will ask Troy Wineland (Water Commissioner) for River Watch data and if the program could add a sampling location at Independence Road

Discussion Notes:

Julie Shapiro opened the meeting and reviewed the agenda, leading introductions of participants.

Updates on monitoring results on the Pennsylvania Mine

Rob Runkel provided an update on the October 2015 sampling results. The 2015 study monitored the wells and wetland inflows after the second bulkhead was closed to determine changes in chemistry; a similar study was conducted in 2014 after the first bulkhead was closed. The 2014 results were encouraging, demonstrating that pH, copper and zinc loads and concentrations in the river improved after the bulkhead, although the effects decreased further downstream. The 2015 results did not show as many positive impacts downstream as anticipated, showing minimal to no improvement; this could be due to leakage. Zinc levels changed near the Penn Mine in 2015, but were not markedly different than pre-bulkhead levels further downstream. The study also monitors wells for post-bulkhead leakage; the AW1 well has shown the most vulnerability to metal changes due to leakage.

It was noted that there is still some flow from the bulkheads, depending on the time of year; flow has been regulated to about an 80% reduction. Load from the wetlands also influences water quality. It was suggested that the wetlands should be tested for a connection to the mine pool, in order to establish whether or not F-level water comes through the wetlands.

The study team believes there may be a delay between the bulkhead going in place and an improvement in water quality. The second bulkhead has been closed for a year, which may not be enough time for groundwater flow to decrease. The 2016 data may reveal more changes in water quality. 2016 data will inform monitoring decisions for 2017. Future monitoring will focus on low flow.

Follow-up on August Action Items

Conductivity-based monitoring plan

EPA headquarters is now reviewing all plans concerning abandoned mines. As a result, the funding transfer for this project didn't happen, and USGS removed the equipment from the creek. The equipment may be deployed again in the spring. The team will explore using existing interagency agreements to move the work forward.

New electro-magnetic monitoring technology

This new detection technology is promising, but in early stages; the earliest it would likely be available for use on the Snake River is 2018.

Macroinvertebrate sampling methodology

Timing and budget will be determined by the next meeting.

Stockpiling materials

No update at this time; there is hope to add it to the budget next year.