

Elizabeth Mine Community Advisory Group (EMCAG)
Barrett Hall, South Strafford, VT
November 8, 2007
Meeting Summary
DRAFT

EMCAG Members and Alternates Present: Deby Botelho, Kaye Campbell, John Freitag, Tom Essex, Linda Cook, Neal Meglathery, Cathy Cook Parker, Marie Ricketts, Gwenda Smith, Scott Stokoe, Bob Walker and Steve Willbanks

EPA: Ed Hathaway and Mary Jane O'Donnell

Army Corps of Engineers: Scott Acone

U.S. Fish and Wildlife Service: Ken Money

URS: Jason Clere

Agency of Natural Resources: George Desch and John Schmeltzer

Copperas Hill Coalition: Lori Barg and Dick McGaw

Facilitator: Cindy Cook, Adamant Accord, Inc.

Project Update

EPA Project Manager Ed Hathaway distributed CD's with data that's been collected over the past few years.

Ed noted that the river was very orange this past summer, and that after several storm events the river has been flushed of sediment and looks much better. The increased concentrations in iron coming from the seeps at the base of TP-1 are likely to continue until the amount of water flowing through TP-1 is substantially reduced by installing a cover system. The cover system will prevent rainwater and snowmelt from flowing through the tailing. Ed noted that he had hoped that a simple earthen cover would be enough to reduce flow volume so that the remaining flow can be treated with a passive treatment system. It now appears that to reduce the volume of water that flows through the tailing enough to make a passive water treatment system possible, a geomembrane liner will be needed as part of the cover system.

Ed gave a slide presentation that summarized the work done this far, and the future work planned. He described the three categories of work being conducted:

1. Construction of a buttress to stabilize TP-1. This was done as a Time-Critical Removal Action. Work on this is complete.
2. Non-Time Critical Removal Action (NTCRA) work to prevent Acid Mine Drainage by consolidating and covering TP-1, TP-2 and TP-3 to prevent air and water from coming into contact with the tailing. Some surface water diversion work has been completed, but the most significant part of this work – the installation of the cover system—has not yet been funded.
3. The South Mine, TP-4 and the Lord Brook area will be addressed as part of a Removal Action.

In response to questions, Ed noted that original cost projections were in 2001 dollars. Delays in construction lead to cost increases. The construction of the buttress to prevent collapse of the tailing dam was not meant to address water quality issues.

In response to a question from Scott Stokoe regarding what people can do to encourage EPA to allocate the funds to install the cover system, Pat Parenteau stated that people should work through their congressional delegation to get funding ear-marked for the Elizabeth Mine cleanup.

A copy of Ed's presentation will be posted on the EMCAG's website.

Results of Water Quality Testing of the West Branch

Steve Fiske, a fish biologist with the Vermont Agency of Natural Resources, gave a slide presentation regarding the results of biological sampling that ANR conducted this fall.

Steve summarized his findings as follows:

- ▶ The upstream Control reach (RM 6.0) recovered to "very good" in 2007.
- ▶ The stream reach (3.8) nearest to Copperas Brook remains poor with the lowest macroinvertebrate density and species found to date, the fish community remains poor low in density and the possible loss of slimy sculpin.
- ▶ The stream reach at RM 1.4 has returned to a fair condition from poor in 2006, but remains impaired due to low density and richness of macroinvertebrates. The fish community is considered good -- very similar to that found in 2001.
- ▶ The thickness of the iron precipitate at RM 3.8 increased to the highest level measured. At RM 1.4 the index was higher levels than 2006, very near those found in 2005.
- ▶ Lords Brook at RM 3.3 immediately below the south cut drainage improved to good, with increases in density and richness of macroinvertebrates and excellent numbers of brook trout. Ed noted that EPA will keep an eye on this—it may mean that the Remedial Action work planned to address this area can be reduced in scale.

Steve concluded as follows:

The temporary increase in iron loading to the stream has allowed for a greater, and perhaps more rapid buildup, of iron precipitate on the stream substrate near Copperas Brook should not effect the ability of the river's aquatic community to recover to that found above the mine site.

The reason that a temporary increase in pollutant loading to the river should not affect its long-term biological recovery is that the West Branch of the Ompompanoosuc River is a high gradient, erosional type stream. The stream substrate in these type streams is frequently scoured of precipitate and algae buildup, and sand bed load is washed downstream to depositional sinks. Once the source of pollutants in these type streams is reduced or eliminated their recovery rate is dependent on recolonization sources. In the case of the Ompompanoosuc River a number of high quality stream

communities exist both within the river upstream of the mine, and in tributary streams.

Interim Water Treatment

John Schmeltzer noted that ANR does not believe that the construction of a water treatment plant that is large enough to treat the high pre-cover flows from TP-1 is warranted because:

- Current iron concentrations are within the historical range.
- The Benthic and Fish Study Results show no significant change.
- Horizontal Drains have not yet been installed. Once these drains are installed, the iron problem may be reduced.
- The installation of the cover system will significantly reduce the volume of water that will be need to be treated. To treat the higher pre-cover flows, water would need to be pumped uphill to an area with large storage lagoons. The water would need to be kept from freezing, and an active treatment system would be needed. Once the cover is in place, a smaller, less expensive passive treatment system that is not so dependent on human intervention can be used.
- ANR is concerned that using EPA resources for the construction and operation of an interim treatment will delay the funding of the permanent cleanup.
- Uncertainty in O&M costs and duration of interim system.

John noted that ANR is not opposed to EPA constructing a treatment system, if EPA decides interim treatment is necessary and EPA funds construction (approximately \$2 million) and Operations and Maintenance (O&M) costs (approximately \$75,000 to 100,000 annually).

In response to a question, Ed noted that if the state and the community make interim water treatment is a high priority, EPA will consider allocating resources for plant construction. Because the state would be required to pay O&M costs, it has ultimate veto power.

ANR's Request For Technical Assistance

John Schmeltzer stated that ANR has consulted with experts from the U.S. Bureau of Mines. ANR will send out a Request for Proposals in December for technical expertise in addressing Acid Mine Drainage and for assistance in considering possible reuse options for material from the site.

OMYA Waste

In response to a question from Marie Ricketts regarding the possible use of OMYA waste at the site, John responded "If the community doesn't want it, it won't happen."

CASS Petition

John Freitag described a petition that he is circulating that asks for an independent review of the effectiveness of using Superfund the cleanup the Elizabeth Mine and two other

mines in Orange County, and asks for a comprehensive environmental impact statement for the cleanup work. John noted that he thinks an independent review can be conducted without stopping work on the cleanup.

Deby Botelho and Bob Walker commented that the TAG advisors are hired by the community to conduct independent reviews. Ed Hathaway noted that Environmental Impact Statements (EIS) are not required for Superfund projects, but that the Superfund process is “functionally equivalent” to the EIS process, because Superfund includes a process for reviewing cleanup alternatives and because public involvement is mandated by Superfund. Once EPA has identified a threat to human health or the environment, it is legally obligated to address this threat.

Ed went on to say that EPA has conducted multiple reviews of project decisions, including bringing in mining experts from other regions of the country, technical advisors from the Technical Outreach Services to Communities (TOSC) Program, and an engineering company that has its own mining branch.

Trails Committee Report

Bob Walker noted that a group met earlier this fall to discuss creating trails at the site. The group will work with landowners, and plans to start by using existing roads, and hopes to create new trails later on. Landowners will control what types of uses are permitted, and EPA will require that these uses be compatible with long-term site management. Bob invited people who are interested in working on trails to contact him at Robert.J.Walker@valley.net.

Adjournment

The meeting adjourned at approximately 9:20 PM.