

# Eagle Mine Stakeholder Meeting Minutes

September 17<sup>th</sup>, 2014, 2 pm  
Avon Public Library, Avon, CO

## Jennifer Chergo, Environmental Protection Agency

- 1) Superfund Process
  - a) 1986 the Eagle Mine was added to National Priorities List, “some of the most contaminated sites in the nation,” commonly known as Superfund sites
  - b) All superfund sites are subject to CERCLA (Comprehensive Environmental Response, Compensation, & Liability Act, passed by Congress in 1980) & NCP (National Contingency Plan, the federal gov’t.’s blueprint for responding to these contaminations)
  - c) Colorado Department of Public Health & Environment (CDPHE) is the lead regulator overseeing investigation & cleanup, Environmental Protection Agency (EPA) plays a support role
  - d) Preliminary Assessment/Site Inspection → National Priorities List (1986 for Eagle Mine) → Remedial Investigation/Feasibility Study → Record of Decision → Remedial Design/Remedial Action → Construction Completion (2001 for Eagle Mine) → Post-Construction Completion → NPL Deletion → Reuse
    - i) Each step has required community involvement where EPA must engage local stakeholders
    - ii) Post-Construction Completion includes Operations & Maintenance and Five-Year Reviews: determines how the remedy is working and if it is protective of human health and the environment; conducted in perpetuity at sites where contamination remains (such as the Eagle Mine site)
      - (1) Five-Year Reviews in 2000, 2005, 2008, 2013
      - (2) In 2008, Colorado Water Quality Control Commission (WQCC) set new standards for ER, remedy was no longer protective due to those changes (specifically related to zinc loading). 5 year review schedule modified to coincide with WQCC regulatory process hearings
      - (3) The Proposed Plan (PP) is a summary fact sheet of the Feasibility Study; presents the preferred cleanup alternative. Upon completion, PP is submitted for public comment

## Wendy Naugle, Colorado Department of Public Health & Environment

- 1) 1993 Record of Decision (ROD) has driven where we are now
  - a) In the ROD, Table 7 outlines “contaminant specific surface water ARARs (Applicable or Relevant & Appropriate Requirements)” detailing zinc, copper, cadmium, lead, silver, not iron, manganese, arsenic; based off of state’s table value standards
- 2) 1996 Consent Decree (CD) signed by a judge binds all parties to how the cleanup is going to be implemented. In 2008, ARARs in the ROD were changed; table value standards would no longer be used at site. Biological criteria developed based on 10 years of monitoring; want the standards to be protective of a healthy biological community
- 3) Overall decline in concentrations of dissolved zinc; most years don’t meet the standards during peak flow but meet it the rest of the year; additional remediation is necessary to understand sources

- 4) On-going Operations, Maintenance & Monitoring process in place because the implemented remedy is complete but the site is still not meeting goals; CERCLA process doesn't have clear guidance what to do here; Naugle sees two options:
  - a) Use the existing Consent Decree with provisions for additional work; require CBS to do additional remediation; would not involve the public
  - b) Circle back through RI/FS process, develop new alternatives, involve the public more; CHPHE chose this but didn't want to completely restart the FS process; result is development of a "Focused Feasibility Study" (FFS) to focus specifically on compliance with water quality ARARs
    - i) FFS aims to answer these questions: where is the remaining contamination coming from? How much remediation is needed to meet water quality standards? Then compare alternatives to assess feasibility and effectiveness
    - ii) CBS developed a "study plan" in 2008, initiated work on FFS in 2009; CDPHE involved stakeholders several times and ultimately approved the list of alternatives in the FFS. First draft of FFS completed in April 2010, agencies revised it June 2010 for another draft; second draft in November 2010. CHPHE and EPA needed more data to analyze effectiveness of the proposed alternatives; July 2013: FFS finalized and posted on CDPHE website; PP is an agency document from CDPHE, summarizes the document, and chooses preferred alternative and why; administrative record preparation, going through thousands of documents to see if they are relevant for the decision
      - (1) Naugle didn't have data to tell whether new alternatives would address emerging arsenic (As) issues raised by stakeholders; now she does and it needs to be included in the FFS; CBS created an addendum to the FFS to include As; still data gaps, will be doing sampling March/April 2015 to fill those
      - (2) Arsenic was not identified as a contaminant of concern in the 1993 ROD because it wasn't detected; 2011 stakeholders requested that it be added to the Surface Water Monitoring Plan, CBS began sampling for it in October 2012 (same locations & frequency as regular monitoring)
      - (3) Looks like As is coming from the mine, definitely coming from Rock Creek; Several outstanding questions: What are the sources of As at the site (more sampling on top of what's already being done needed)? Are there background levels of As that need to be considered? Will the proposed alternatives reduce As? Are other alternatives needed?
- 5) FFS is based on a fundamental calculation comparing existing water quality to 2008 standards; if water quality standards are changed, all calculations must be redone
- 6) In order for CDPHE to support changes to the WQCC water quality standards in the future, there would need to be a demonstration that the current standards are not protective of the biological community; cannot support the case where: "water quality has improved, so let's lower the standards"
- 7) Goal of the cleanup is a healthy biological community; once the remedy consistently attains the water quality standards defined by the ARARs, then biological data will be used to measure the success of the cleanup
- 8) CDPHE has responded to stakeholder requests for:
  - a) meaningful public involvement in the whole process
  - b) arsenic studies
  - c) audits of pipeline & conveyance system
  - d) a call-down system for spills/releases at the site (managed by ERWSD)
  - e) a revised Emergency Response Plan

- f) that agencies address issues associated with iron & manganese
- 9) Condition is wholly dependent upon continued operation of the existing remedy, including drawdown from the mine pool and treatment at the water treatment plant
  - a) There are no plans for delisting the Eagle Mine site from the NPL, although, some areas may be delisted if they are completed remediated (e.g. Battle Mountain development resulting in cleanup of parcels to domestic use standards).

**Question & Answer Session:**

- 1) Skipped
- 2) The answer is no. CBS has agreed to do additional sampling and have been asked to create the As addendum. If CBS doesn't agree to do the addendum, CDPHE will do it. Haven't set the standard, will be an ARAR discussion with CBS. Bob Weaver asks for a sampling & analysis plan (SAP) to share with stakeholders, to coordinate efforts and share data. Don't have a formal SAP yet. Wendy will discuss it as a team with EPA and CBS. At any point the agencies can take over to do the studies and the work, and then charge CBS accordingly; it will be more expensive if the agencies take over, so it's in CBS's best interest to do the work. "Water plus fish" standard is a precautionary standard. Fish tissue sampling shows As in fish. Naugle doesn't want to wait for the standard change (could be as late as 2021); wants a site specific cleanup goal, would still need to meet aquatic life standard, and also the human health part calculated with risk assessment site specific data.
  - a) Todd Fessenden: how did it get upgraded between most recent 5 year review and the one before? In 2008, it was deemed protective of human health but not the environment; in 2013, it was deemed protective of both. Naugle notes that new guidance from EPA look at short term and long term protectiveness. Most recent says its protective in the short term but not in the long term because it hasn't yet met the ARARs.
  - b) Bob Weaver: are iron & manganese part of the FFS addendum, too? Naugle notes that they typically aren't considered hazardous substances and aren't considered in CERCLA. She doesn't plan to address them in the addendum because there isn't enough iron & manganese data at this point. BW notes that these metals cause problems with the disinfection of drinking water. Todd Fessenden ERWSD is working to establish limit of the concentration of iron & manganese at the intake, that will help decide if/how to reduce iron & manganese loading at the mine
  - c) In order to get the addendum moving along, we need further data collection, data analysis to determine an ARAR for As. Seth Mason: is there an opportunity for public input on this step? Not really, agencies establish ARARs, no room for public input. Goal is strongest protection/lowest risk, but what are the available technologies to achieve that? What was there before the mine? Eagle River above Eagle Mine has background concentrations of arsenic 10 to 15 times higher than the state standard
  - d) Bob Weaver: is there a mechanism for a phased approach? We know what needs to be done go ahead with zinc measures while waiting on info regarding As (see #5)
- 3) Skipped
- 4) Can't have a vague Consent Decree and can't have two Consent Decrees because CBS simply won't sign on. There is Statement of Work attached to Consent Decree which has to be very detailed, can't be vague

- 5) CBS wanted to implement portions of the remedy associated with zinc. EPA said no. Would mean negotiating the Consent Decree twice which CBS won't want. Creates an administrative burden by doubling up on the process. Naugle suggests using pilot tests ("treatability studies") to accomplish goals outside of the regular process. It's like a shortcut so it wouldn't be as rigorous, there are always tradeoffs. Don't have a timeline for resolving the As issue. Arsenic ARAR would eventually go to the Commission to be adopted as a site specific standard. Don't have to go to the WQCC but it would streamline things and avoid the confusion of two different standards on the river.
- 6) Skipped
- 7) Skipped
- 8) Will be informed through the Senate Bill 181 report; may have implications for other superfund sites throughout the state; FFS timeline provided to the commission in Nov 2013, no further updates since then.
- 9) Skipped
- 10) Skipped
- 11) By cleaning up to levels below the standard, CBS has given themselves a compliance buffer Naugle doesn't want to take that away; works to CBS's advantage to keep metals at the lowest level they can, Wendy Naugle doesn't want to require it; Seth Mason notes that problems may occur when the standard isn't protective of the uses the community relies on the river to support and brings up the issue of anti-degradation concerns associated with development at Battle Mountain. Naugle thinks that CDPHE wouldn't oppose ratcheting down standards in the future (beyond the FFS timeline), but also wouldn't support it. CBS would like to negotiate away the discharge permit for the waste water treatment plant. Naugle wants CBS to keep the NPDES discharge permit.
- 12) Nothing negotiated on Consent Decree (CD), scope will be comprehensive, will follow EPA model, will try to tie up all the loose ends that aren't in the current CD. Once lodged with the court, there will be a 30-day comment period; then judge's discretion whether to enter it or not. Compliance Monitoring Plan, O&M, ERP etc. would be appendices that could be revised periodically without necessitating an entirely new CD.
- 13) See Watershed Wednesday video, covered pretty thoroughly.
- 14) Want to align the process with the needs of the community. Jennifer Chergo notes that the measure of success matches the mission to protect human health and the environment. The desire is to create a remedy that's acceptable to the community. Seth Mason notes that there are two primary ways that stakeholders view success: 1) through WQ improvements in the Eagle River as produced by the remedy, and 2) feeling that needs and concerns are being listened to by CDPHE and EPA and thereafter incorporated into the process in a timely manner. Local stakeholders want to patch what has been, at times, an adversarial relationship and move forward in a positive and more functional manner.

15) There could be an operable unit carved out for separate actions. The Eagle Mine site is composed of different parts, each with differing physical aspects. Parts may be delisted and returned back to other uses without delisting the whole site. But it should be pointed out that the ultimate goal of any Superfund site is to delist and return to protective use where possible.

**Next steps and action items:** identify a process for more frequent and better communication (e.g. monthly updates), consider data sharing for As between area stakeholders and CDPHE, investigate opportunities for a pilot project to reduce zinc concentrations in the river while the new CD is worked out, collaborate on future Regulation 33 hearing regarding As standards, collaborate on a SAP for addressing As concerns on the Eagle River, identify a timeline for the FSS, PP, CD process.