



*Friends of the Wild Rivers*

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Mark Purcell

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Via e-mail to: [Purcell.Mark@epamail.epa.gov](mailto:Purcell.Mark@epamail.epa.gov)

**Re: Molycorp, Inc. Site Proposed Cleanup Plan (December 2009)**

Dear Mr. Purcell,

Thank you for providing us with the opportunity to comment on the *Molycorp, Inc. Site Proposed Cleanup Plan (December 2009)* (PCP), and for having extended the comment period to give us the necessary time to review the proposed plan.

The mission of Amigos Bravos is to protect and restore the rivers of New Mexico. The Red River flows from the pristine heights of the Wheeler Peak Wilderness, and drains one of the state's most productive watersheds. Prior to open-pit mining, the Red River was a "Blue Ribbon" trout fishery throughout its middle reach where the molybdenum mine is located. Unfortunately, the Red River now has the unflattering distinction of being one of the most polluted rivers in the state. For over twenty-two years, Amigos Bravos has focused much of its resources on restoring the Red River. Since 1988, we have participated in numerous state and federal regulatory proceedings regarding the Chevron Mining Inc. (CMI) Questa mine (a.k.a. the Molycorp molybdenum mine).

EPA is to be commended for taking many of our concerns regarding the PCP into account and for choosing source containment and water controls and treatment as its preferred cleanup approach for both the mine site and the tailing area.

Amigos Bravos is in support of the following actions outlined in the PCP:

- ≈ Removal of PCB-contaminated soils at the mill area

- ≈ Requiring source containment at both the mine site and tailing area -- specifically by regrading, placing a 3-foot cover, and revegetating
- ≈ Requiring the collection, extraction and treatment of impacted seepage water
- ≈ Reducing ongoing contamination of the Red River by:
  - Mandating that mine water be pumped in perpetuity to maintain a water table that is at an elevation lower than the Red River
  - Requiring treatment of collected seepage and groundwater in perpetuity
- ≈ Comprehensive cleanup of Eagle Rock Lake
- ≈ Removal of tailing spills and molybdenum-contaminated soils in riparian areas and south of the tailing site

However, as we expressed in our June 29, 2009 comments on the *Draft Feasibility Study Report*, Amigos Bravos remains highly concerned that the proposed cleanup plan:

- ≈ Does not meet the requirements for protecting public health and safety by allowing ground water contamination to continue to grow at the tailing site for at least two more generations
- ≈ Does not propose an alternative that adequately addresses comprehensive cleanup and restoration of the Red River
- ≈ Does not require financial assurance to cover the cost of pumping and treating contaminated water in perpetuity

### **Mill Area**

Amigos Bravos supports EPA's Preferred Alternative, but is concerned about the erosion and migration of molybdenum soils to surface water. Molybdenum is a cause of water quality impairment on the Red River and the target of a TMDL...hence an important factor in compliance with ARARs. We are also concerned that the proposed ground cover depth for the cap is inadequate to be protective of human health and the environment. To respond to these concerns, Amigos Bravos recommends that Alternative 3 be enhanced to require a three-foot cover and the installation of additional storm water controls and monitoring protocols to contain future releases of PCBs and molybdenum.

### **Mine Site Area**

Amigos Bravos supports EPA's approach to source containment as outlined in Alternative 3A. We understand the need for some flexibility in dealing with extreme geologic challenges, however we believe that Alternative 3B is not protective and unsustainable over the long-term. To provide the necessary flexibility in extreme situations (and only on a case-by-case basis), the sole criteria for allowing a variance for steeper slopes should be the constrictions of underlying bedrock slopes, stability, and factor of safety.

Amigos Bravos is very concerned about relying on Spring Gulch Rock Pile waste rock as the sole source of cover material EPA will prescribe to prevent percolation into the underlying acid-generating waste rock. The coarse nature of, and lack of substantive organic matter in, the Spring Gulch waste rock renders this material inadequate for storing water and growing enough vegetation to function as a store-and-release cover.

The failed vegetation test plots at the mine are a testament to the inadequacy of the material. If there is no alternative to using the Spring Gulch material, then EPA will have to require constant upkeep of the cover, including erosion controls and periodic application of organic enhancers.

In addition, Amigos Bravos is concerned that the PCP does not address cleanup and remediation of the subsidence areas and the open pit. The PCP should at the very least discuss alternatives for minimizing water contamination from those areas, and analyze the potential for using the open pit as a tailing disposal facility.

### **Tailing Facility**

Amigos Bravos is concerned that EPA's decision to allow the continued use of the tailing facility does not meet CERCLA's mandate to protect human health and the environment. By not requiring the closure and reclamation of the tailing facility until some future date when the mine ceases operations, the proposed plan sanctions the further release of toxics to air and water that will continue to poison the environment and threaten the health of Questa residents for two or more generations.

The existing seepage collection system at the tailing facility is inadequate. Due to the fractured nature of the geology of the area, even additional extraction wells (as identified in Alternatives 3B and 4) will most likely fail to control contamination from escaping the collection system. Moreover, we are aware that there is an imbalance in the amount of water that is collected at the tailing facility versus the amount of water discharged. We know that a huge percentage of the water at the tailing facility is lost and not accounted for, potentially creating a large plume of contamination. For these reasons we believe that CERCLA should mandate the immediate closure and reclamation of the tailing facility.

Amigos Bravos believes that by reclaiming and closing the tailing facility and its infrastructure, and by requiring source containment at the mine site, as outlined in Alternative 3A of the PCP, CMI will greatly reduce its exposure to liability from groundwater contamination and tailings spills. Furthermore, by removing the tailing pipeline and processing tailing at the mine site, the Red River and the community of Questa will be spared from the drama and health impacts of additional tailing spills. A third major benefit of this approach to cleanup at the tailing facility is that by containing and discharging tailing water at the mine site instead of sending it downstream to the tailing facility, CMI will increase flows in the section of Red River adjacent to the mine site where water contamination is at its worst, and thus help dilute acid mine drainage from seeps adjacent to the mine site.

Amigos Bravos requests that EPA provide an additional Alternative to incorporate the closure of the Tailing Facility. We believe that by not providing an alternative that addresses closure of the tailing facility, and instead allowing pollution of groundwater to continue indefinitely, the PCP may be out of compliance with CERCLA's statutory requirements to be protective of human health and the environment, utilize permanent

solutions and alternative treatment technologies, and satisfy the preference for treatment that reduces toxicity, mobility, or volume as a principle element.

Amigos Bravos is of the opinion that the current method for disposing and treating tailing should be terminated and that the tailing facility should be closed to further use as a mine-waste disposal site. The tailing facility should then be reclaimed as outlined in Alternative 4 in the Proposed Cleanup Plan.

The Proposed Cleanup Plan states: *Extraction of ground water in the basal volcanic aquifer south of Dam No. 4 (Alternative 4) would increase protection of human health (P.96). The alternative that would be the most effective and permanent in the long-term is Alternative 4 (P.97).* Yet EPA has chosen Subalternative 3B as the Preferred Alternative over Alternative 4 because of “*limited beneficial use of ground water in the area south of Dam No.4 and the likelihood of no future increases in such use*” (P.111). Amigos Bravos wholeheartedly disagrees with this justification. All water in New Mexico has been appropriated for beneficial use, and the future will only increase demand for water use. For these reasons Amigos Bravos supports Alternative 4 as the preferred alternative to be used concurrent with closure of the tailing facility.

### **Solar Pilot Project**

Amigos Bravos is very much in support of alternative energy generating proposals and is of the opinion that the tailing facility is an appropriate site for generating solar energy. However, Amigos Bravos is very concerned that the CERCLA remedy for the tailing site -- which includes establishing a three-foot cover and revegetation -- be completed prior to the installation of the solar array.

We are aware that the pilot project includes a cover depth pilot demonstration to analyze the effectiveness of 1-ft, 2-ft and 3-ft cover depths over a five-year period. The PCP goes on to state: *...if a 1-foot or 2-ft thick cover is demonstrated to be successful in the five-year pilot, the CERCLA remedy would be modified accordingly...* Amigos Bravos believes that a five-year test is too short a time period for collecting data that can scientifically predict the effectiveness of the cover to protect water quality and wildlife habitat for the long term.

Moreover, since the late 1990s, Amigos Bravos has participated in various discussions regarding appropriate cover depths -- both at the mine and at the tailing facility. In the opinion of a majority of experts, regulators, and wildlife agencies, a cover depth of less than three feet will result in enough erosion from wind and storm events, frost heaving, vegetative uptake, and wildlife burrowing to expose the tailing to both wildlife impacts and water infiltration.

For these reasons, Amigos Bravos believes that the cover depth pilot demonstration is inappropriate and poorly designed and only serves to obfuscate the obvious, namely, that a three-foot cover is the minimum depth for an appropriate CERCLA remedy. Amigos Bravos proposes that if a cover depth pilot demonstration is being proposed, it should more appropriately analyze 4-, 5- and 6-foot cover depths.

### **Red River, Riparian, and South of Tailing Facility Area**

Amigos Bravos is disappointed in the alternatives provided for the protection and cleanup of the Red River. Protecting the health of the Red River is a critical factor in protecting the health of Questa residents and visitors. Since the inception of open-pit mining, water quality on the Red River has diminished, as has the native *Blue Ribbon* trout fishery. The major factor leading to the degradation of the Red River is the impacts from tailing spills. Tailing residues are pervasive throughout the area bordering the tailing pipeline and in the river itself. Even EPA's preferred alternative is inadequate to stop future releases of contaminants from these sources.

Once the proposed source containment controls are in place at the mine site and tailing facility, the single greatest threat to the health of the Red River and the people that depend on it will continue to be from historic and future tailing spills. In dealing with this factor, the PCP is inadequate. In addition to the actions undertaken by EPA's Preferred Alternative – Subalternative 3B – Amigos Bravos recommends that EPA develop a remedy that removes or relocates the tailing pipeline and uses green infrastructure to create buffers and wetlands to protect the Red River from the transport of spilled tailing-contaminated soils.

In addition, Amigos Bravos is concerned that the Dump Sump areas have become ecological sacrifice zones. The upper Dump Site across the river from the Mill Site is potentially an ecological treasure. Unfortunately, there is no discussion in the PCP regarding the future remediation of this area. Originally the Dump Sump was a meander of the river that contributed to slowing down river flows and the natural deposition of eroded soils. This Dump Sump, along with all riparian areas should be cleaned up and reclaimed to provide the kind of green infrastructure that allows the river to fulfill its natural cleansing functions.

### **Eagle Rock Lake**

Amigos Bravos supports EPA's Preferred Alternative, and we commend EPA for having included Eagle Rock Lake in the Proposed Cleanup Plan.

At this time, Amigos Bravos wishes to once again emphasize the following point we raised in our comments on the *Draft Feasibility Study Report*:

### **Financial Assurance**

Amigos Bravos was a plaintiff in the *Sierra Club v. Johnson* lawsuit regarding EPA's responsibilities under Section 108(b) of CERCLA to promulgate regulations and require financial assurance from industries handling hazardous waste. The Molycorp mine was a specific topic of the lawsuit. The court found in favor of the plaintiffs, and in July 2009, EPA announced that it would be requiring financial assurance from the mining industry.

The need for perpetual monitoring, drawing down water in the mine so that it remains at a level below the water table of the Red River, seep water collection, and treatment of all collected water prior to discharge are critical factors for the success of cleanup at the

mine site and the tailing facility. Without the financial resources in place to guarantee water collection and treatment in perpetuity, the Record of Decision (ROD) will be inadequate and flawed.

The issue of Financial Assurance is as critical to the cleanup plan as are Institutional Controls, monitoring wells, source containment criteria, etc. Therefore, Financial Assurance must be explicitly discussed in the ROD, and a timeline must be provided for when Financial Assurance will be established. The ROD should specifically require Financial Assurance within 90 days. Calculations for Financial Assurance must be based on cost estimates developed in the PCP, and should be derived through calculation methods and assumptions consistent with methods used by MMD and NMED. Financial Assurance instruments should not be based on third-party, self, or corporate guarantees.

If Financial Assurance is not addressed in the ROD, Amigos Bravos' interests, expressed in the lawsuit and in past participation in state regulatory processes, will be harmed.

In conclusion, Amigos Bravos requests that EPA address our concerns, specifically:

- ≈ A new Alternative for the Tailing Facility that addresses immediate closure of the facility and supporting infrastructure including the tailing pipeline
- ≈ A new Alternative for the riparian areas that, in addition to removal of tailing material, also removes the tailing pipeline, and uses green infrastructure to contain impacts from historic tailing spills
- ≈ The establishment of Financial Assurance to cover the costs of cleanup and perpetual treatment

Thank you for taking our concerns into consideration.

Please let me know if you have any questions.

Sincerely,

Brian Shields  
Executive Director  
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