

26 February 2018  
5141 W. Terra Way  
McNeal, Arizona 85617

U.S Environmental Protection Agency, Region 9  
Drinking Water Protection Section, Mail Code WTR-3-2  
75 Hawthorne Street  
San Francisco, CA, 94105

Attention: Nancy Rumrill  
Sent by email to: rumrill.nancy@epa.gov

RE: Comments regarding Gunnison Copper Project Class III Draft Underground Injection Control Permit

Dear Ms Rumrill:

As a long-time resident of the Sulphur Springs Valley, for some years involved in hard-rock mining issues in Arizona and elsewhere (including being for several years a member of EPA's RCRA-D Industrial Waste Focus Group), I appreciate the opportunity to comment on the Draft Class III Underground Injection Control Permit (UIC) for Excelsior Mining's Gunnison Copper Project..

First, I request that you note several procedural problems with this project, not least of which is the terribly inadequate notice to people of this county of both the proposed project and the 27 February 2018 public hearing concerning it. The Agency has not done nearly enough to get information about the proposal and the Agency's draft permit to the potentially affected public in this rural area.

In addition, please note that (as you have already heard from others) the draft permit for this project does not contain a Cumulative Impacts Analysis, and the EPA has not established a proper Area of Review. Both these deficiencies should be corrected, and further public hearings scheduled after a wider range of concerned public has been notified and has had sufficient time to analyze the revised or supplemental draft.

In-situ mining, injecting millions of gallons of sulfuric acid into the groundwater, a method of extraction which has never been used in unmined land in Arizona, has not been shown anywhere to be able to restore mined lands and groundwater to pre-mining conditions, and has never been used by Excelsior (a company itself untested in the field). As you know, groundwater in the area is our sole source for drinking water, and uncontaminated groundwater is a dwindling resource throughout the state, especially under drought conditions (which have been in effect here for over a decade). Agricultural operations and private households, particularly in the northern part of the county, have for the past several years have found it necessary to deepen their wells as existing wells increasingly go dry, and conditions are expected to worsen under climate change (an environmental condition which should be addressed in the permit).

Extreme caution, beyond what is indicated in the draft permit, should be taken in this situation. Modeling has suggested that wells, including those outside the immediate project area, could be contaminated during mining operations and after closure, so if the project proceeds, cautionary measures should include far more monitoring wells, including outside the immediate project area, than are required by the draft permit. Of course, as per best mining practice, these wells should be in place at least a year before mining begins to obtain adequate background benchmarks and any trace of contaminants in monitoring or private wells should trigger immediate shutdown of mining operations until the sources of pollution are located and stopped. In addition, the monitoring wells should be maintained for decades after mine closure, and trigger immediate remediation if any residual contamination is detected. Before mining is allowed to begin, Excelsior should be required to establish sufficient bonding to cover such monitoring and remediation costs as may be required.

Water quality parameters should be established before the final permit (not afterwards, as proposed in the current draft), and subject to full public comment. Since the in-situ method is essentially untested in general, and at the proposed site in particular, the list of chemicals to be monitored for should be considerably expanded, including radionuclides (which latter are known to occur in other Arizona copper deposits).

In addition to these toxics issues, I am concerned that the permit has not required adequate attention to requirements for historic preservation and protection of Native American religious sites and materials. The proposed site is in an area well-known for its historic and prehistoric use, so the permit should require far more extensive cultural and archaeological surveys and evaluation than have been done or that would be required by the draft.

As noted above, I appreciate the opportunity to comment on the draft permit, which should be revised and/or supplemented as suggested, and ask that you keep me informed of any further actions regarding this site.

Sincerely,

Michael Gregory