

Hermosa Critical Minerals Project Objection (Coronado National Forest)

Introduction:

As a stakeholder, I would like to express my thoughts with the current final environmental impact statement (FEIS) made for the Hermosa Critical Minerals Project (#65668). The project is expected to be an underground mining project in order to obtain minerals (mostly for the rich zinc deposit) in Santa Cruz county in Southern Arizona. This is projected to be a huge investment (million into projects with an estimated annual of a little over a billion output) and over two thousands jobs created. As a local Arizona stakeholder within a two hour drive, I hope to have a concern of mine answered. That concern being about the usage of groundwater and its potential impact on our livelihoods.

Concern: Groundwater Usage

In section 3.17.2.2.2 (Alternative 2-Proposed Action), over the course of seventy years, 195,000 acre feet of groundwater would be used for dewatering pumping. Although it mentions a lot would be recovered in that time period (through RIB's and Harshaw Creek discharge (aquifer)), it mentions that the rate of RIB infiltration is still unknown (pg.618). This concerns me that not only is this project not suitable for the long term (estimated net negative 34,000 acre feet if analysis was complete and the current projection of cone depression), but also effects that the RIB infiltration does not account for (lower ground water levels and bigger cone depressions). This incomplete analysis can be concerning the recharge rate of the water is not fully accounted for. We could face even lower water levels than projected on the EIS. A few cases to look at is what happened in the mines (Betze Mine, Gold Quarry, Genesis, and Carlin) in the Carlin Trend area (NV). The Gold Quarry mines' cone depressions (from extensive dewatering) have lowered water levels about 680 feet deep (12 miles long and 6 miles wide). The most concerning cone depression is in the Betze mine where the deepest parts can go

down to 1,600 feet. These cases show how impactful non assured calculations can have on the cone depressions but also the groundwater supply. I would recommend a full analysis of the RIB rate to mitigate possible net negatives to the groundwater supply and environment (cone depressions).

Conclusions:

The state of Arizona's water supply is a subject that needs to be monitored with precision. Groundwater composes forty percent of Arizona's overall water usage and overall water supply in Arizona is contested (Colorado Water Compact-allocation of six states has expired). With this in mind, I do hope that my concern with Alternative two can be addressed and possible effects can be investigated. Thank you for your thoughtful consideration of my concerns.

References:

Changes in ground-water levels in the Carlin trend area, north-central Nevada, 1989-2003. USGS. (n.d.).
<https://www.usgs.gov/node/109203#:~:text=Ground%2Dwater%20pumpage%20in%20support,b arriers%20to%20ground%2Dwater%20flow>.

Dixon, S. (2024, August 20). Where does our water come from?. Where does our water come from. <https://environment.arizona.edu/news/where-does-our-water-come>.