

Data Submitted (UTC 11): 6/10/2024 4:04:41 AM

First name: Susan

Last name: Patla

Organization:

Title:

Comments: I am submitting these comments as a homeowner in Rio Rico. We purchased our home in 2019 as a winter residence based on the incredible biodiversity and low-density lifestyle of Santa Cruz County. I had been visiting this area since 2004 to enjoy birding, hiking, biking and studying the plants and animals of Santa Cruz County. I am a retired Wyoming State wildlife nongame biologist. My professional work included monitoring and managing species of conservation concern.

We live about 30 miles from Patagonia and a few miles from the Santa Cruz River. I recreate and bird in the Patagonia area often 3-4 times a week from November to June. The Patagonia Mountains, San Rafael Grasslands, Patagonia Lake State Park, and the town of Patagonia are of major focus for me and my husband. I have seen Spotted Owl and Elegant Trogon along Flux Canyon/FS roads that are proposed to be used as a major transport route for this project. The area covered in this scoping document is of immense importance to me. Out of every place in the world, we chose to have a retirement house here. This is a unique area. There is nothing else like it in the United States. The EIS needs to acknowledge the incredible ecology and recreational value of Federal Lands in the Patagonia Mountains as part of its evaluation of this project.

I request that the EIS address the following points of concern:

1)The EIS should include a reasonable number of alternatives including a NO-action alternative that would keep all mine activities off of Forest Service Public lands. If this mining operation cannot function within limits of a preferred alternative, it should not be approved. The loss and degradation of public lands with such high biodiversity value cannot possibly be mitigated in any meaningful way. I have visited many post-mining operations in the western US. I know firsthand the limits of mitigation after large mining operations.

2)Evaluate the future need for the Hermosa Mine and consider how other Alternative Energy Projects might be a better use of Federal Funds to combat climate change. I understand that manganese and zinc are considered critical minerals now by the U.S. Geological Survey but that does not mean they should be extracted everywhere they occur. The location of the Hermosa Mine is in one of the most important ecologically rich and unique mountain ranges in the USA. No amount of mitigation will be able to restore this area to its original biological state if this project goes forward. What will be lost is truly priceless. The EIS should evaluate future trends in demand for manganese and zinc, especially a potential decrease in demand for manganese. Battery technology is changing rapidly. Sodium-ion batteries may in the future reduce the demand for lithium-ion batteries. Many other innovative battery improvements are being developed and tested. Consider this statement from the MIT Technology Review :

Cathodes are typically one of the most expensive parts of a battery, and a type of cathode called NMC (nickel manganese cobalt) is the dominant variety in EV batteries today. But those three elements, in addition to lithium, are expensive, so cutting some or all of them could help decrease costs.

<https://www.technologyreview.com/2023/01/04/1066141/whats-next-for-batteries/>

Could the public funds being spent on the Hermosa Mine be put to better use in areas of research for development of alternative battery technology? Is this really the best use of available funding?

3)The EIS must include information and analyze locations, or at least potential locations, where the South 32 remote control center and the manganese processing facility will be located if this project goes forward. Without this knowledge, there is no way to assess how future traffic movements and pollution associated with mining activities will affect our communities. No development of facilities should be located close to major drainages including Sonoita Creek and the Santa Cruz River. The damage to these sensitive riparian areas will be too great and impossible to mitigate.

4) The EIS needs to evaluate alternative traffic routes from the mine to processing and transportation facilities. State HWY 82 is experiencing increased traffic already and major accidents occur with some regularity. Many people who now enjoy visiting the Patagonia area will likely reduce or even eliminate their visits to the area if mining trucks are allowed on this highway for any extended distance. This rural highway is not built to accommodate such traffic. Who will pay for the increased wear and tear on the road? How many more police will be needed to regulate traffic? Please include such cost estimates in your analysis.

5) The EIS should not rely on analysis and stated protection methods to ensure air and water quality as described in the MPO by South 32, but use third party, unbiased professionals either from other government agencies or the private sector to evaluate proposed environmental protection procedures and develop mitigation measures.

6) Baseline data needs to be included in the EIS that extends back to at least the 1980's.

The MPO states: "South32 Hermosa has collected site-specific baseline meteorological data near the Project from 2018 to present. Measurements include wind speed, temperature, precipitation, humidity, solar radiation, and atmospheric pressure. These monitoring data have been used to support the air quality permit and development of environmental protection measures. "

This time span is not long enough to cover possible weather events in the future. Precipitation in some years can be greater than what has been measured since 2018. Potential major flooding events need to be considered and mitigated for. The EIS must evaluate the impacts of increased lighting and also the installation of tall power poles and lines on wildlife mortality and displacement in the project area.

7) What will be the effect on nearby observatories of increased lights in this formerly dark area?

8) Water discharge into Harshaw Creek will far exceed natural flows in this drainage and could potentially affect the entire watershed below FS lands including Patagonia Lake and Sonoita Creek and the Santa Cruz River. The EIS must evaluate the effects of such excessive and unnatural discharge on erosion, and increased flooding during the monsoon season which could cause excessive damage to private lands in the county, loss of native wildlife and existing plant communities, and likelihood of invasive species becoming established on FS lands. What is the possibility of contamination of residential water supplies downstream from the FS lands?

9) The EIS needs to evaluate the effects of draining a deep aquifer including both potential short and long-term effects. Data and monitoring of such technology from other mine sites should be included in this analysis if available. Water will become a more valuable resource than any other if current trends continue for a hotter and drier southern Arizona. Wildlife, vegetation and human populations cannot exist without adequate water resources. One mining operation should not be allowed to deplete an aquifer for a few minerals. The FS needs to bring in top experts to thoroughly evaluate potential effects of proposed groundwater management for this project. The MPO was very weak on this topic.

10) The EIS should do a thorough job on identifying wildlife and key habitat using a variety of available resources. The MPO provided little specific information on wildlife species and the habitats they use within the project area except to state that wildlife monitoring had occurred. Valid mitigation measures must be developed and described in detail. Protecting habitat in limited areas of the project is not enough. The EIS needs to include analysis of habitat loss and degradation for all species of conservation concern including species designated under federal laws such as ESA and FS management categories such as sensitive species. The Arizona State Wildlife Plan should also be used to identify species of state concern and possible mitigation measures. I am particularly concerned for Spotted Owl, Northern Goshawk, Yellow-billed Cuckoo, Elegant Trogon, jaguar, all amphibian and reptile species, and the numerous bird migrant species that pass through or nest in the Patagonia Mountains. Some of these species cannot be found anywhere else in the United States in most years.

11) How will open water recharge basins and increased flow in area drainages affect sensitive wildlife species?

Thank you for the opportunity to comment on the EIS scoping period although I was disappointed that time extensions requested by the county and others were ignored. The Forest Service has the responsibility to develop an honest, detailed and thorough analysis of this project. Pressures for this Fast Track project will be great, but I encourage you to do the best possible job. Environmental damage to this incredibly special area will be long lasting. This project if it goes forward as proposed will likely displace many species including current human residents of Santa Cruz County. There remain very few places in the world as special as the Patagonia area. I do not believe that current federal and state mining regulations are adequate enough to truly protect this area.