



# Board of Supervisors

## Santa Cruz County

MANUEL RUIZ  
District 1

RUDY MOLERA  
District 2

BRUCE BRACKER  
District 3

June 4, 2024

*Mailed and emailed.*

Kerwin S. Dewberry, Forest Supervisor  
Coronado National Forest  
300 W. Congress St.  
Tucson, AZ 85701  
[kdewberry@fs.fed.us](mailto:kdewberry@fs.fed.us)

RE: Scoping Comments for Hermosa Critical Minerals Project EIS

Dear Mr. Dewberry:

Thank you for considering the following comments and recommendations related to the Hermosa Critical Minerals Project EIS.

### **ECOSYSTEM SERVICES**

Ecosystem services are the resources and processes that the environment supplies to support life and human well-being. The County is primarily concerned with the health of our area's ecosystem. The Hermosa Project may impact our area's ability to function ecologically and provide ecosystem 'services' to our community. Ecosystem services include clean and available water, clean air, and a thriving and biodiverse wildlife population.

### **Water Resources:**

Pumping groundwater, and subsequent geological changes caused by mining, along with the Hermosa Project's continued release of treated water into area watercourses, will foreseeably have impacts on the region's watersheds and may affect water quantity, quality and availability for humans and wildlife, while also increasing flood risk. These impacts are likely to be

short-term during construction and mine operation, and also long-term during mine reclamation and closure. Please study broadly and in detail the impacts the Hermosa Project will have on our area's water resources. A Harshaw Creek/Alum/Flux Total Maximum Daily Load (TMDL) study, and a Comprehensive Surface and Groundwater Study (CWS) on Harshaw Creek are preferred but not exhaustive study recommendations.

### **Airshed:**

Changes in air quality will foreseeably occur from the Hermosa Project. Onsite mining operations and mining activities along transportation corridors, including during construction, will likely increase ambient dust, airborne chemicals, and vehicle emissions. Coarse and fine PM<sub>2.5</sub> and heavy metals, potentially including manganese, may be released into the area's airshed which could result in negative health impacts. The transport of hazardous materials during the construction and operation phase, potentially including fuels, explosives, and hazardous chemicals, raises the risk of an industrial accident that further pollutes the air. Please study broadly and in detail the impacts the Hermosa Project will have on our area's airshed, across its entire short- and long-term operational footprint, including transport by truck and rail from Santa Cruz County into Pima County, Cochise County, and Nogales, Sonora, Mexico. Note also that the EPA has classified the Nogales area as a non-attainment region for PM<sub>2.5</sub>. Please evaluate the cumulative impact on the surrounding airshed associated with ambient dust, airborne chemicals, and vehicle emissions from mine operations. To understand and mitigate the foreseeable airshed impacts described above, we strongly recommend that the US Forest Service develop and deploy air quality monitors to establish a quality monitoring network. Low cost, highly reliable monitors are readily available to monitor PM<sub>2.5</sub> in and around the community of Patagonia and along transportation routes. This network would first provide a baseline in order to characterize current PM levels as well as the relative increase due to ongoing mine activities. Please also explore mitigation measures which may include engineered controls of mine operational equipment, fugitive dust suppression efforts, speed limits and road resurfacing, along with explicit standards established as to when such mitigation measures are deployed.

### **Biological Resources:**

A degradation of our wild areas, a reduction in biodiversity, and habitat loss including endangered species, will foreseeably occur from the Hermosa Project. Construction and mining operations will result in a loss of individual plants and animals both at the Hermosa site and along new power lines, new roads, and at ancillary facilities. Changes to water

resources will foreseeably lead to a reduction in surface water, seeps and springs, depriving plants and animals from necessary water. Regional-scale wildlife corridors will be blocked by mining operations. The spread of invasive plants will further degrade areas in and around mine operations and facilities. Increased noise, vibration and light pollution due to mining operations will foreseeably affect nearby animals, increasing stress and possibly leading to a reduction in numbers. Migratory birds will foreseeably avoid the mining operation and thereby alter their migratory pattern.

Effects on biological resources will likely include short-term impacts during construction and operation, as well as long-term impacts during the reclamation and post-closure phases from habitat loss. Please study broadly and in detail the impacts the Hermosa Project will have on the area's biological resources, noting that the area is considered to be uniquely biodiverse according to respected scientists.

### **Ecosystem Services Mitigation:**

For the above foreseeable impacts on our entire ecosystem and the services it must be able to provide to the wildlife and citizens of the area, please consider mitigation in the form of a land exchange, prioritizing an appropriate level of land conservation to include regionally significant riparian areas and the protection or establishment of wildlife corridors throughout Santa Cruz County (ideally connecting the Patagonia Mountains with the Santa Rita Mountains and the Tumacacori Mountains).

### **ROADS, TRAFFIC & INFRASTRUCTURE**

Hermosa Project-related traffic and congestion will foreseeably impact the region. Vehicle traffic associated with the mine has the potential to increase overall traffic levels and change traffic flows in the region, and to lead to an increased risk of vehicle accidents resulting in injury. With heavier use, roads will also likely become more expensive to maintain. Mine-related traffic may also change patterns of service throughout the region. Mine operations will potentially use rail which will foreseeably increase the risk of a rail accident. Effects on transportation, access, maintenance and infrastructure foreseeably includes short-term impacts during construction and operation, as well as long-term impacts during the reclamation and post-closure phases. Please study the impact the Hermosa Project will have on traffic and transportation infrastructure in the region. We recommend a study of regional traffic projections in detail. Please also create a regional traffic model that anticipates levels of service that exceed County standards, and where

these occur a mitigation plan should be studied. Please also study road-related & infrastructure-related (i.e. rail) regional emergency response capacity & planning in detail.

As an alternative to the new road presented in the mine plan of operation, a Lochiel option is preferred. Please study the viability of a route that heads south from the Hermosa Project and avoids major roadways using the already established Forest Service Road 49 to Lochiel. Please also study ways to mitigate impacts of mine traffic on Harshaw Road. Recreational users (including cyclists), ranchers, border patrol, nearby homeowners, and others use this road daily. Please explore how this road can be widened and/or upgraded to accommodate these multiple uses safely.

### **COMMUNITY HEALTH/QUALITY OF LIFE**

The Hermosa Project will foreseeably threaten some of our community members' physical and mental health, and reduce the quality of life for those in the area who will be subjected to changes in traffic patterns and increased traffic congestion, dust, emissions, noise and vibration on and near the mine site as well as on and near roadways, light pollution extending from the mine site, and stress related to area patterns of growth and change. Please study in detail the impact mining operations will have on regional community mental and physical health.

### **FIRE RISK & CLIMATE CHANGE**

The Hermosa Project will foreseeably increase our area's vulnerability to fire. Mine-related operations can start and encourage the spread of fires, including an increase in non-native vegetation on the mine site and new roadways, larger vehicle transport, increase use of heavy equipment, and an above-ground power line. This fire risk will combine with higher predicted levels of drought due to climate change, increasing fire risk exponentially over time. Monsoon rains in our area are predicted to gain strength due to climate change. Mine-related operations that introduce treated water into existing waterways foreseeably increase the likelihood of flood damage with saturated soils receiving larger monsoon rainfalls. Please study in detail the area's current fire risk and its current flood risk. Please study in detail future fire and flood risk due to predicted increases in area drought and monsoon rainfall due to climate change. Please study in detail the cumulative effects of increasing climate change risk and mine-related operations over time. Please study the region's fire- and flood-related emergency response capacity.

Please also research ways to mitigate fire danger due to an above-ground transmission line. NV Energy's Power Safe NV program is a potential model to follow:

<https://www.nvenergy.com/safety/ndpp>. Please also explore mitigation options for the Town of Patagonia's increasing flood risk. And finally, please explore fire-related mitigation in the form of climate adaptation measures for the Town of Patagonia and for Coronado National Forest in general. The following website includes many fire-related adaptation measures appropriate to the southwest: <https://swfireclime.org/fire-climate-adaptation-tools/>

## **RECREATION**

Recreation in the area includes gravel biking, hiking, birding, horseback riding, hunting and boating. The Hermosa Project will foreseeably impact current patterns of recreation and lead to loss of recreation areas. Birding will be affected regionally due to foreseeable changes to migration patterns due to mining operations. Mine activities will continue to sever connectivity of existing roads and trails on Forest Service lands and further limit recreational access, especially for gravel bikers who use Harshaw road to access the San Rafael Valley, and horseback riders who use a number of trails in and around Flux Canyon. Mine operations will foreseeably affect nearby trail user experience, including the Arizona Trail. Water quality in Patagonia Lake may be harmed by release of treated water into the Sonoita Creek watershed. Effects on recreation will foreseeably include short-term impacts during construction and operation, as well as long-term impacts during the reclamation and post-closure phases. Please study in detail current regional recreation patterns and how they may be affected by the Hermosa Project.

As stated previously, the Lochiel option is a preferred alternative to the new road presented in the mine plan of operation. Please study the viability of a route that heads south from the Hermosa Project using the already established Forest Service Road 49 to Lochiel. This option supports our recreation community of horseback riders, birders and hikers.

To mitigate impacts on the area's recreation, please consider developing new recreation areas in the Coronado National Forest, accessible to all skill levels and near the Town of Patagonia, for gravel biking, hiking, horseback riding and birding.

## **SOCIOECONOMIC**

### **Negative Effects of Growth/Environmental Justice:**

We are concerned about the Hermosa Project's foreseeable impacts on growth in our region. With new jobs, new business and new residents moving into our region to take advantage of mining opportunities, the area will foreseeably see considerable, and possibly rapid, change. Growth and rapid change can be good for some, but for others it can mean a drop-in quality of life, difficulty in finding housing, and a loss of community character. Economic benefits may not be experienced by all sectors of society equally; historically, minority and low-income communities benefit from large industrial projects to a lesser degree than the area as a whole due to differences in education, employment, and economic status. Please do a detailed study on regional growth projections in relation to the Hermosa Project. Please also study the economic effects of the mine on environmental justice communities and evaluate whether these effects are disproportionate.

### **Lack of Affordable Housing:**

While South32 has committed to hiring locally whenever possible, we believe that an influx of new residents seeking housing is foreseeable, due to outside hiring, as well as ancillary businesses that will arise to service mine operations and mine employees. The area currently has a shortage of affordable housing. We believe the Hermosa Project will foreseeably impact our current residents' ability to afford area housing, increasing our area's affordable housing challenges. Please do a detailed regional housing study that includes analyzing the current housing inventory and predicting future housing demand.

### **Lack of Economic Diversification/Threats to the Nature-Based Restorative Economy:**

It is our goal as a County to support current diversified economic activity, as well as to ensure that when the Hermosa Project winds down, our residents have ample opportunities to find non-mining employment. The Hermosa Project will foreseeably affect one of our area's thriving economies, the Nature-Based Restorative Economy, as quantified in a University of Arizona study from 2021 ("The Nature-Based Restorative Economy in Santa Cruz County, Arizona" <https://economics.arizona.edu/nature-based-restorative-economy-santa-cruz-county-arizona>). This economy will foreseeably be affected by mining activities as described in various sections above. Please study in detail the likely impact the mine will have on the Nature-Based Restorative Economy.

### **Threats to Rural Community Character:**

The Hermosa Project will likely trigger an inflow of investment capital, increased area wage income, and increased discretionary spending by mine employees and contractors. It is foreseeable that over time, new housing will be constructed and new restaurants, retail outlets, and service providers will move into the area. This will foreseeably result in an increase in overall living standards in the area. Negative economic impacts, such as a loss of community character, could offset these economic benefits. Changes in living standards will foreseeably lead to changes in the rural community character of area communities, including the Town of Patagonia (approx. 800 residents) and the Sonoita/Elgin area (approx. 2,000 residents). Please study in detail the economic impact of the Hermosa Project on rural community character in the Patagonia and Sonoita/Elgin areas and consider both tangible and intangible elements.

### **Municipal Capacity:**

The Hermosa Project and the associated area growth as described above will stretch our capacity as a collection of municipalities (Town of Patagonia, City of Nogales, Santa Cruz County). A foreseeably large influx to the area of mine employees, construction personnel, and persons and businesses providing products and services to the mine itself as well as to mine workers and their families will lead to increased tax revenues, but also to increased use and “capacity” issues for local schools, hospitals and other medical or emergency service providers, water and sewer systems, electrical and telephone/communications systems, roads, available housing, and other basic local and regional infrastructure. Please study the capacity of area municipalities to adequately respond to growth and change triggered by the Hermosa Project.

Sincerely,

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Manuel Ruiz,  
Chairman

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Bruce Bracker,  
Vice-Chairman

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Rudy Molera,  
Supervisor