Kerwin S. Dewberry

Forest Supervisor, Coronado National Forest

ATTN: Hermosa Critical Minerals Project

300 W. Congress St.

Tucson, AZ 85701

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Subject: RE: Scoping Comments for the Hermosa Critical Minerals Project EIS

Dear Mr. Dewberry:

I thank you for the opportunity to express my concerns and opposition of the use of US Forest Service land by South32 for the Hermosa Project. I request a full environmental analysis including the concerns noted below. I am a 21-year resident of Santa Cruz County. My husband’s family has lived in this region for generations and has ties to the Spanish land grants. We love where we live for so many reasons. I walk, bike, hike, camp, boat, kayak, paddle, participate in birding, exploring, participate in river cleanups, pick up trash at Patagonia and Pena Blanca Lakes, roadways and hiking paths. And, as a nature photographer, I spend hours observing and documenting the incredible diversity and beauty here. From the mountains, the river, lakes, and creeks, to the moon cresting over the ridges. Many nights I have stood in the grasslands and gazed up at the incredible display of stars that make up the milky way. I’ve watched the monsoons as they build up over the mountains and release the nourishment this bio-diverse rich region relies upon. I’ve learned about and visited some of the historical, cultural, and archaeological sites that are located in this region. I’ve spent endless hours photographing the beauty of the sky islands region, including wildlife, landscapes, and nightscapes, including the stars and the milky way. Please consider my concerns noted below.

**Manganese**

While South32 is mining in a historic mining district, manganese (Mn) has not been mined in this region previously, so it does not fall into the category of being a historical mine. A huge concern is that manganese is not a regulated mineral. Leading manganese research expert, Dr. Brad Racette, MD, FAAN, stated at his January 17, 2024, presentation to the Santa Cruz County Advisory Panel on the South32 Hermosa Project, “we have a cohort of about 1000 welders that we've studied over the last 20 years. We've done very intensive MRI and PET studies in a subset of those people. Those exposures are well below the OSHA visible exposure level, which everybody knows is too high, but that's the official regulatory threshold for manganese.” Dr. Racette later reiterated the lack of regulation during his presentation stating, “clearly there's really no debate even in the field that the OSHA limits are ridiculous. They're just far too high, and industries know that. It’s 5 mg/m3. It needs to be below ACGIH.” And, he noted the ACGIH is not an official regulatory level of manganese. <https://sccadvisorypanelonsouth32hermosa.com/wp-content/uploads/2024/03/SCCA-Panel-Meeting-January-17-2024-v2.pdf>

Additionally, there is research showing that manganese mined in other parts of the world have caused toxicity and manganism. Thus, no mining entity should have the power to self-regulate when extracting a mineral that has no guidelines adopted by the EPA. Research has proven manganese affects the health of humans and wildlife. <https://youtu.be/rvjbicijNo0?si=uwNiurzwRSeOSdhl>. [https://sccadvisorypanelonsouth32hermosa](https://sccadvisorypanelonsouth32hermosa/)[.](https://sccadvisorypanelonsouth32hermosa.com/wp-content/uploads/2024/03/SCCA-Panel-Meeting-January-17-2024-v2.pdf)

Please study the effects of manganese exposure on humans, wildlife, and the ecosystem within the Patagonia Mountains as well as the aquifers, including Alum Gulch, Harshaw Creek, Sonoita Creek, Patagonia Lake, and the Santa Cruz River. [Ecotoxicological consequences of manganese mining pollutants and their biological remediation – ScienceDirect](https://www.sciencedirect.com/science/article/pii/S2590182623000012).

**Air Quality**

I have concerns regarding air emissions, including annual air emissions versus operational assumptions associated with the Hermosa project. There must be documented and enforceable limits. It is very possible dust from toxic contaminants including lead, manganese, zinc, and copper may be emitted. Under the Clean Air Act, major sources of air toxins must use maximum achievable control technology to limit emissions. What pieces of equipment are being used and what pollutant emitting activities are being completed? Changes in air quality that could potentially occur from the mine operation could be a significant issue. Construction, mining, and reclamation activities at the mine and along transportation and utility corridors could increase dust, airborne chemicals, and transportation related (mobile) emissions in the affected area. The Clean Air Act and other laws, regulations, policies, and plans set thresholds for air quality. Please study the impacts of mining activities on air quality as it affects humans and wildlife.

**Water**

Many of us live just feet from the Santa Cruz River, and most of us enjoy the watersheds in our region. The Santa Cruz River was recently designated the 4th most endangered river in the United States. It is also being considered as an Urban National Wildlife Refuge, which has been supported by the Santa Cruz County Board of Supervisors, who, on April 16, 2024, adopted Resolution No. 2024-05, Resolution of the Board of Supervisors of Santa Cruz County Calling On Secretary Deb Haaland To Create The Santa Cruz River Urban National Wildlife Refuge in Southern Arizona. Water is a scarce resource. As in many parts of the arid west, threatened wildlife in the Patagonia Mountains rely on clean water to survive.

The Hermosa Project may discharge up to 6.5 million gallons of water daily into Harshaw Creek as part of its dewatering plan. This plan could disrupt a sensitive ecosystem both as species adjust to increased flows, then again after closure when these increased flows cease. Please study the effects of the discharge of this water and how it will impact the creek as well as the redistribution methods that will be used. How will this discharge impact Sonoita Creek, Patagonia Lake, and the Santa Cruz River? It is imperative you study the impacts of up to five water management wells that South32 requests to install on forest service land. Please conduct a surface and groundwater study. Currently, parts of Harshaw Creek have an “impaired” designation in regards to storm water runoff. Please study how storm water runoff and the combined water discharge of millions of gallons per day will impact Hawshaw Creek.

According to the Santa Cruz County Multi-Jurisdictional Hazard Mitigation Plan, adopted on June 4, 2024, the geographical characteristics of Santa Cruz County are mainly in the Madrean Archipelago and states that surface water is scarce, with mostly ephemeral and intermittent streams and that groundwater levels are declining in this ecoregion.

According to the Arizona Department of Environmental Quality (ADEQ), Patagonia Lake, formed by damming Sonoita Creek, will be added to the EPA’s 2024 list of impaired waters. The ADEQ’s 2024 Water Quality Assessment Dashboard data confirms “impaired” waters including Alum Gulch, an unnamed tributary to Alum Gulch, a portion of Harshaw Creek, an unnamed tributary to Cox Gulch, Patagonia Lake, and portions of the Santa Cruz River. The data confirms a portion of Harshaw Creek and Sonoita Creek as being “inconclusive.” This is due to the presence of heavy metals, organics, E. coli, and pH imbalances at levels that exceed regulatory standards have been found and are attributed to mining operations, agriculture, livestock, and contaminated transboundary fugitive wastewater and stormwater flows. Please study the water quality of Alum Gulch, Harshaw Creek, Sonoita Creek, Patagonia Lake, and the Santa Cruz River. These waters have been deemed impaired or inconclusive according to the Arizona Department of Environmental Quality (ADEQ). How will any future contamination impact the future of our water and environment? <https://wrrc.arizona.edu/sites/wrrc.arizona.edu/files/2024-05/Santa%20Cruz_03.2024.pdf>

The Santa Cruz County 2016 Comprehensive Plan’s Goal #19 states that “Water and supplies are protected and conserved.” I am concerned about continued and/or additional contamination of our watersheds. Water for people and nature in the Southwest has been declining during droughts. Intensifying droughts and occasional large floods, combined with critical water demands from a growing population, a deteriorating or insufficient infrastructure, and groundwater depletion, suggest the need for water management that addresses changing risks over time, balancing declining supplies with greater demands. The Forest Service has a duty and responsibility to perform ground water testing. I am concerned about the effects of discharging up to 6.5 million gallons of water a day and the effects of placing this water back in Harshaw Creek at different rates and at different locations. How will the USFS assess and monitor a cone of depression and the related effects of it? How will the discharge of millions of gallons of water affect storm runoff? How will this affect the habitat in this region? Please explain the need for South 32 to drill water management wells on US Forest Service land. Please study these risks and impacts of such. Please study how the USFS will monitor all water wells in the vicinity of the mining activity. South32 should not be self-monitoring themselves or their neighbors. What oversight can you ensure? What actions will the USFS take should any contamination occur in the watersheds or wells? The potential of up to 82 or more springs may be affected by South32’s dewatering should be studied. [Volunteers spring to survey water in Patagonia Mountains before mine begins pumping (tucsonsentinel.com)](https://www.tucsonsentinel.com/local/report/090123_hermosa_springs/volunteers-spring-survey-water-patagonia-mountains-before-mine-begins-pumping/)

**PFAs**

PFAs have been identified at an alarming rate in Santa Cruz County, Arizona. In 2023, the U.S. Environmental Protection Agency (EPA) identified parts of Santa Cruz County as having high levels of per -and polyfluoroalkyl substances (PFAs), “forever chemicals,” in our drinking water. On April 10, 2024, the EPA announced new federal drinking water standards called Maximum Contaminant Levels (MCLs) for PFAs to “safeguard public health and enhance water quality nationwide.” Please study how PFAs will be identified, measured, monitored, and remediated in the environment on US Forest Service land and the effects of their presence in air, soil, and water, in accordance with the EPA 2024 guidelines. Exposure to PFAs is linked to potential adverse human health outcomes and is the subject of increasing regulation and litigation, for good reason. Please study the indirect and residual effects of PFAs in the Santa Cruz County watersheds as well as at the mining site related to this project. How will you ensure no further PFA contamination impacts surface or ground water in Santa Cruz County? [Per- and Polyfluoroalkyl Substances (PFAS) | US EPA](https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas)

**Public Health and Safety**

I am concerned with the health and well-being of mine employees of this project, who are possibly at risk due to toxicity exposure. I am also concerned for the Town of Patagonia and nearby communities and residents, as well as the wildlife, due to possible air, soil, and water contamination.

**Economic Prosperity and Tourism**

The health and prosperity of Santa Cruz County is not dependent on the mining industry. In fact, Santa Cruz County documents explicitly state that Santa Cruz County “relies on tourism in Nogales, Sonoita, and Tubac” as well as in Patagonia. The county has a flourishing nature based economy which is connected to the Patagonia Mountains and surrounding mountain ranges and the biodiversity in the region. Tourism is deeply connected to the Harshaw watershed, including the Sonoita Creek, Patagonia Lake State Park, and the Santa Cruz River, and includes Patagonia, Sonoita, Elgin, Tubac, Rio Rico, and Nogales. It also includes the Arizona Trail, Patagonia Lake State Park, Tumacacori National Historic Mission, Tubac Presidio State Historic Park, the Nature Conservancy’s Patagonia-Sonoita Creek Preserve, as well access to US Forest Service land, specifically the Coronado National Forest. The region’s activities include camping, boating, kayaking, paddling, water enjoyment, hiking, birding, hunting, biking/gravel biking, photography, astronomy, the wine industry of Sonoita and Elgin, horseback riding, and more. Please study how the mining will affect each of these nature based economies and how it will impact US Forest Service Land. [file:///C:/Users/aliss/Downloads/Santa%20Cruz%20County%20NBRE%20Full%20Report-2.pdf](../../../Downloads/Santa%20Cruz%20County%20NBRE%20Full%20Report-2.pdf)

Please also study the impacts of the mining and how it will impact the Santa Cruz County Cuisine Tourism Initiative, which is also connected to the region’s nature based economy. file:///C:/Users/aliss/Downloads/Santa%20Cruz%20County%20NBRE%20Full%20Report-1.pdf

**Light Pollution**

As a nature photographer, I am an avid landscape and dark sky photographer of the milky way. Dark skies are a natural event. Wildlife thrives in its natural environments, including naturally occurring daylight and dark skies. Light pollution poses direct and indirect impacts to wildlife and humans. Dark sky communities are more and more popular and a responsible way of living. Dark skies can also have positive impacts to nature-based and eco-tourism based industries and communities, as dark skies attract tourism. For example, Tumacacori National Historic Park, a designated dark sky park within Santa Cruz County, recently held a star gazing event in May 2024, and regularly does so. Additionally, Arizona State Parks regularly holds star watching events at state parks throughout the state, including parks within the Santa Cruz Valley National Heritage area. Dark sky communities also attract homeowners, especially in rural areas. On March 26, 2024, the Santa Cruz County Board of Supervisors signed a Proclamation declaring International Dark Sky Week from April 2, 2024 through April 8, 2024, as adopted by the Santa Cruz Valley Citizen’s Council. Additionally, Goal #20 of Santa Cruz County’s adopted 2016 Comprehensive Plan states: Dark Night Skies are preserved and protected. Since further development is likely, the County must strictly enforce its regulations on light pollution and apply them to all types of development. Dark night skies are a resource that must be protected like any other natural resource.” [Santa-Cruz-County-2016-Comprehensive-Plan (santacruzcountyaz.gov)](https://www.santacruzcountyaz.gov/DocumentCenter/View/7400/Santa-Cruz-County-2016-Comprehensive-Plan). Dark skies in this region also impact observations and research by the Smithsonian Institution’s Fred Lawrence Whipple Observatory, which could adversely be impacted by mining activities in this region. According to light pollution mapping at lightpollutionmap.info, the increase in the light pollution over time can be seen over the Hermosa mining site as well as over the town of Patagonia. Southern Arizona is home to dozens of nocturnal wildlife species—including bats and the endangered jaguars - and these species rely on undisturbed night environments to hunt, mate, migrate, and thrive. Please study the impacts of migration, hunting, sleep patterns, collisions with light and transmission poles, nesting, and feeding patterns as a result of the light pollution that will result from construction and mining operations on US Forest Service land. Please do not approve any permits on USFS land without ensuring a compliant detailed lighting plan is in place by South32.

**Noise/Vibration Pollution**

Noise and vibrations in many forms can and will negatively impact wildlife and people. Please study the noise and vibration impacts of construction, mining activities, 24-hour operations, including blasting and other noises, large trucks, construction on forest service land and along the mining pathways, roads, and watersheds affected by this mining activity.

**Santa Cruz Valley National Heritage Area Designation**

Please study how mining, mining activities, well drilling, and storage of dry-stacked tailings will impact the Coronado National Forest and the Patagonia Mountains, along with the watersheds in keeping with the mission of the Santa Cruz Valley National Heritage Area (SCVNHA) Designation. The SCVNHA Management Plan provides for the management, preservation, protection, and interpretation of the cultural, historic, natural, and recreational resources of the area for the educational and inspirational benefit of current and future generations.” I would like to reiterate the fact that manganese mining is not a part of history in the Patagonia Mountains.

**Wildlife & Biodiversity**

After touring the mining site, we saw deer and coatimundi basking in their beautiful habitats. How much time will pass when wildlife is no longer sighted in these spaces due to changes in water, air, soil, sound, people, light, construction, and traffic? This region is a global biodiversity “hotspot” known all over the world for the many species of wildlife that reside and migrate within the Sky Islands region. The Patagonia Mountains and the surrounding area are home to more than 100 imperiled species of plants and animals. It’s the duty of federal agencies to prevent their extinction and practice due diligence in protecting forest service land. The endangered jaguar, Mexican spotted owl, and yellow-billed cuckoo live within these sky islands. People come from all over the US and the world to experience birding activities in such a unique area. Please study the impacts of the aforementioned on the biodiversity of this region.

**Soil/Tailings**
The proposed facilities on forest land include a second dry-stack tailings pile and at least two infiltration basins for returning treated groundwater back into the local aquifer. How will the infiltration basins affect the dry-stacked tailings? How will the USFS ensure no contamination is incurred from legacy mines by the current mining venture? The South32 POO states half of the tailings will be mixed with cement and used as an engineered cemented paste backfill. How will this backfill affect soil and water? South32’s POO states the “design, construction, and operation of the dry-stack TSF2 would adhere to ADEQ’s APP standards, as well as recognized international industry standards, such as the Global Industry Standard on Tailings Management (GISTM) and Australian National Committee on Large Dams (ANCOLD) guidelines (2019). Yet, if manganese waste or fugitive dust is placed in the dry-stack pile, since manganese is toxic and unregulated in the United States, how will it impact humans? wildlife, and the environment? One need only to study how manganese has harmed humans, wildlife, and the environments in places around the world where it is has been mined. In regards to filtered tailing production and transportation, the POO states, “After filtration, the filtered tailings would be loaded into articulated haul trucks (with tailgate) via loadout bin. The haul trucks would be utilized to transport the filtered tailings from the filtration plant to TSF1 or TSF2. The haul trucks would be traveling a relatively short distance, at low speeds, and on a haul road which would be continuously inspected and maintained by South32 Hermosa. Although the haul trucks would have an open top, fugitive dust is not anticipated due to the fact the filtered tailings would be moist. In addition, the filtered tailings would be dewatered to a moisture content resistant to liquefaction during transport.” While South32 “anticipates” no fugitive dust, clearly the possibility exists for fugitive dust to occur. How will you ensure no fugitive dust puts the air, water, and soil at risk?

What are the risks and effects of back filling the ground with a cement paste? How will the back filling and cement paste affect the water levels? How will this impact the environment? How will storm runoff and winds affect the tailings pile? Please study the effects of dry stacked tailings containing lead, silver, zinc, copper, and manganese on USFS land including the short term and long term impacts to the soil, air, water, wildlife and human environment.

**Hazardous Events**
I am concerned about the risk and effects of hazardous materials on the environment, including the proper storage, disposal, and transportation of hazardous materials and waste on forest service land. Any accidental catastrophic release of mining ores and materials during mining activities or transportation could cause direct impacts to people, plants, wildlife, and soil in the immediate vicinity of the spill; could possibly migrate into surface waters and cause indirect downstream effects on vegetation, aquatic species, and wildlife; and would pose risk of groundwater contamination. An accidental catastrophic or major onsite accident could cause direct impacts to soil and wildlife, and if a long-term release of toxins were to occur, it would carry a high potential for groundwater contamination. No one can entirely prevent accidents. A review of mining history emphasizes this statement. Please study the risks of hazardous accidents, spills, storage, transport, disposal and remediation and its effects on the environment.

**Drought**

Santa Cruz County has experienced a drought for many years. The Arizona Department of Water Resources has determined that average yearly drought levels for Santa Cruz County since 2000 have largely been “Abnormally Dry” and “Moderate Drought,” with some “Severe Drought.” The National Weather Service and the Drought Interagency Coordinator group, the advisory body to Arizona Governor Hobbs, recommended on May 21, 2024, for various reasons and “for the longer term outlook”, that the state’s Drought Emergency Declaration be continued. The panel has predicted above normal temperatures and less water for Arizona. Additionally, Santa Cruz County has ranked drought as the second highest hazard. The County noted that several private wells along Highway 82 and South River Road went dry and had to be drilled to a greater depth within the last few years. Drought-stressed plants are often more susceptible to diseases and pest infestations, leading to further declines in native plant populations. This can lead to increased competition for limited resources, and some wildlife species may struggle to find adequate food and shelter. Many wildlife species rely on specific water sources, such as these watersheds during their migrations. Drought can disrupt these patterns, potentially leading to declines in populations. Severe drought conditions can increase wildlife mortality due to dehydration, malnutrition, and disease. Droughts may cause a water shortage for human and industrial consumption and water quality may also decline, while the number and severity of wildfires may increase. Sustained drought conditions will impact other hazards such as fissures, flooding, subsidence, and wildfire.

**Transmission Line**
Unisource will be installing a new 138-kilovolt transmission line to deliver power to the mine. The direct concerns regarding this include the disruption to humans and wildlife during construction. Additional direct affects are the increased danger of wildfires. The Panhandle Fire in Texas (2024), the Lahaina fire (Maui, 2023), and the Camp Fire (Paradise, California, 2018) are examples of catastrophic fires started by electrical wires. Wildlife is impacted after installation. Scenic views and landscapes are also altered after installation. The lines will impact humans and wildlife. Please place this transmission line underground.

**Wildfire Risk**
According to the US Forest Service, southern Arizona is in a high risk area for wildfire. The Arizona Department of Forestry and Fire Management has listed Sonoita, Arizona as one of the top areas at risk Arizona At Risk Communities | Department of Forestry and Fire Management (az.gov) for wildfires. <https://dffm.az.gov/arizona-risk-communities>. The Patagonia Mountains are also designated as being a very high wildfire risk area. [Arizona Wildfire Risk Assessment Portal | Department of Forestry and Fire Management (az.gov)](https://dffm.az.gov/arizona-wildfire-risk-assessment-portal). The [Santa Cruz County Multi-Jurisdictional Hazard Plan](https://www.santacruzcountyaz.gov/DocumentCenter/View/18212/Santa-Cruz-MJHMP-Draft-12-6-23-?bidId=) confirms the wildfire status and risk to Southern Arizona, including the Patagonia Mountains and part of the Coronado National Forest. Wildfire risks increase with higher temperatures, lower precipitation, and the presence of more high voltage transmission lines. An excerpt reads: “The identified development trends (of the County) will potentially impact the community's vulnerability. The increase in residential development may increase population growth, affecting more residents in the event of a wildfire, flooding, or severe weather.” “The extreme variability of precipitation across the southwest and the trend of increasing temperatures have led to extremely dry conditions within the forest and grasslands of Santa Cruz County. These dryer conditions will continue to increase the length and severity of wildfires. Wildfire impacts can be catastrophic, especially in WUI areas. They have economic impacts on tourism and can cause commerce disruptions. They can lead to other secondary hazards such as burn scar runoff flooding. Major power transmission or communications infrastructure can be disrupted. The loss of habitat and natural resources can last for decades after the fire is put out. People are often displaced temporarily to shelters or other accommodations or potentially even permanently with the loss of a residence. A wildfire raging through Santa Cruz County, AZ, would likely have significant economic, social, and infrastructural impacts on the community. Underserved communities could be disproportionately affected due to existing vulnerabilities. The wildfire could cause damage or destruction to residential, commercial, and agricultural properties, leading to substantial financial losses for individuals, businesses, and the local economy. Because Santa Cruz County relies on tourism, a wildfire event could lead to decreased tourism due to safety concerns, and it would impact local businesses that depend on visitor spending. Agricultural operations, a significant economic driver, could suffer from damage to commodities, livestock, and infrastructure, leading to a major economic blow.” Please study the wildfire risk to the Patagonia Mountains, Patagonia, Sonoita, Elgin, Nogales, Rio Rico, and Tubac.

In the last few years, some Santa Cruz county residents have incurred a loss of insurance and/or have incurred an increase in insurance rates due to an increase in wildfire risks. The Santa Cruz County Multi-Jurisdictional report states, “According to the Insurance Information Institute70, Arizona had the third-highest number of burned acres in 2021 and is ranked fourth in the estimated number of properties at risk. The National Risk Index shows expected annual losses for wildfires of $1.0 million. The disaster declaration costs for wildfires where Santa Cruz County was a declarant from 1990 through 2022, was $7.5 million in state expenditures. Also, note that most of these dollar amounts may not include the cost of wildfire suppression, which can be substantial. Additional losses can occur long after the fires are extinguished when barren soils cannot soak up moisture, and cause runoff and debris flows during flood events.” Please analyze the wildfire risks as they relate to private and US Forest Service land in southern Arizona, including their potential to reduce soil's water-holding capacity and infiltration of water back into aquifers. Please study the possibility of increased risk of ignition of wildfires along transportation routes, and wildfire spread from the transportation of flammable/toxic materials, as well as increased fire risk due to a new above-ground transmission line. Is the infrastructure and support in place for fighting fires in the Patagonia Mountains and nearby regions should they be needed due to the increase of fire risk? How will the USFS ensure safe exits in the event of fire?

**Development**

Several Santa Cruz County reports and documents confirm the trend that the county is attracting new businesses as well as residential and commercial development. With more people and development, “the identified development trends will potentially impact the community's vulnerability.” This includes water usage, wildfire, flooding, and/or severe weather. Please study the impacts of growth from the construction phases of the mine to full capacity. More people will be living in or near Patagonia and the surrounding communities. Thereby increasing the need for more infrastructure road traffic, water usage, air quality, and services. How will this development impact the cost of living and maintain affordability for residents? Please also study how this development will comply with the Santa Cruz County 2016 Comprehensive Plan as well as maintain the quality of life Santa Cruz County residents enjoy. Open spaces and vistas without visual blocks has been a mainstay of life here. Having access to the Coronado National Forest has also been a constant draw of this region. The presence of the South32/Hermosa project could bring the need for additional housing and commercial development throughout Santa Cruz County. As more people and businesses move into the area, there will be an increased demand for services, infrastructure, and amenities. This will likely lead to additional development, including new schools, healthcare facilities, first responders, and retail centers - all requiring additional water use. Therefore, additional surface and groundwater supply requirements are expected and warranted. Who will incur the cost of this infrastructure strengthening, but for the tax payer.

**Cultural Resources**

Please study the impacts of mining activities on culturally relevant sites within the Coronado National Forest and along the mining pathway in the Patagonia Mountains as well as the related watersheds. We know the Patagonia Mountains and the Santa Cruz River watershed was and is still home to indigenous people and Tribal Nations. Artifacts and sacred spaces are within this region. The USFS has a duty to seek out Tribal consultation and consideration in making decisions to allow use of forest service land, in accordance with law.

**Rural Landscapes/Visual Scenery**

The mine operation may not conform to the quality of life expectations as expressed by the forest plan and Federal, State, and local regulations and ordinances. Open spaces and vistas without visual blocks has been a part of life here. It is what draws many visitors and residents alike. A degradation of landscape and scenery may impact housing values. Mining infrastructure including roads and the utility corridor could also affect visual resources in the area. The character of State Route (SR) 83, which is a designated scenic corridor, and the views it provides will change. A scenic road is not one marred by mining related vehicular traffic. The scenic quality of the landscape may be permanently changed and degraded. Please study how mining activities will affect the above stated highly valued landscape and views.

**Recreation/Roads/Traffic**

South 32 wants to place an 8-mile road through Flux Canyon that would link the site to Arizona State Route 82 (SR82) near the turn-off for Patagonia Lake. Patagonia Lake State Park is a heavily visited tourist destination for many people, as is the adjacent Sonoita Creek Natural Area. My family has been enjoying this state park for over fifteen years. We have visited it extensively over the years, along with other areas within the Patagonia Mountains. Patagonia Lake State Park offers RV/tent camping, boat-in camping, boating, kayaking, paddling, birding, fishing, swimming, cabins, hiking, and more. According to an online source, approximately 213,167 people visited this state park in 2022. This trend will likely increase especially given the predicted increase in temperatures and the increase in population growth in the region. Many visitors use SR83 and SR82 to arrive at tourist destinations, which have the distinction of being called the “Patagonia-Sonoita Scenic Road.” At what point does a scenic road lose its appeal? Mine related activity on SR82 and SR83 will increase exponentially. The increased presence of up to “170 trucks round trip daily” for the mining operation on and off of forest service lands is cause for concern. Please study the impacts of a rural scenic road undergoing such changes and impacts. What impacts will there be on the time of day, access to recreational areas and enjoyment of these recreational areas and access to tourism in southern Arizona? What impacts are there regarding loss of access to USFS land and the recreational opportunities it currently provides. What are the potential impacts of vehicular accidents, accidents involving hazardous materials, hazards to people and wildlife? The sounds alone will push wildlife further away. South 32 has stated they want to have an all electric fleet by 2050, though that is 26 years away. Thus, their trucks will be impacting traffic, emissions, and roadways. The same impacts exist should South32 use State Road 83. I am concerned about public health and safety, as once construction and mining begins, tourists and residents will encounter a high number of mining trucks on these highways, in addition to an increase in general traffic to and from the mining location, to and from recreational destinations, to and from other businesses and residences. Additionally, bicyclists could be at an increased risk with increased truck traffic. It is recommended an alternate route be used to mitigate vehicles on the scenic highway, which will reduce accidents and it will reduce potential hazardous material accidents, noise, pollution, traffic, wildlife deaths on roads, and maintain the visual aspect of the scenic road. The increased number of traffic, population growth, number of residents, the increase in tourists, and South32 trucks on the roads for years to come will impact accessibility as will cumulative effects from other mining activities in the area who may also use SR82 and SR83. Please study the direct, indirect, and cumulative impacts of the above, including a traffic study including projected accident and fatality rates.

**Compliance**
Please disclose how the USFS will ensure compliance with rules and regulations in place affecting air, water, soil, and wildlife preservation. How will you ensure remediation will take place? How will you ensure this mining activity does not end up on the Arizona Superfund list?

**Environmental Justice**

Environmental Justice Executive Order 12898 – Federal Actions to Address Environmental Justice in Minority Populations and Low‐Income Populations was signed on February 16, 1994 and focuses attention on the environmental and human health effects of federal actions on minority and low‐income populations with the goal of achieving environmental protection for all communities. On April 21, 2023, President Biden signed an [Executive Order](https://www.whitehouse.gov/briefing-room/presidential-actions/2023/04/21/executive-order-on-revitalizing-our-nations-commitment-to-environmental-justice-for-all/) affirming previous orders relating to Environmental Justice to “ensure that all people can benefit from clean air, clean water, better health, access to green space, safe and affordable housing, and clean transportation.” Please study the impacts of using US Forest Service Land for mining. The USFS was asked to extend the Scoping period to account for 78% of Santa Cruz County’s population having Spanish as a first language. While an extension of the scoping period was not provided, all documents associated with this project necessitate a Spanish version to eliminate any environmental racism.

I hereby incorporate the comments submitted by Patagonia Area Resource Alliance, Sky Island Alliance, and other conservation organizations, in addition to the comments submitted by the Southern Arizona Chapter of DarkSky International.

Thank you for your conscientious consideration of my concerns as the Hermosa project’s NEPA process continues. The 1872 Mining Laws are antiquated and no longer provide a realistic model for mining in 2024 and beyond. The mission of the USFS is “to sustain the health, diversity, and productivity of the Nation’s forests and grasslands to meet the needs of present and future generations. Grounded in world-class science and technology– and rooted in communities–the U.S. Department of Agriculture (USDA), Forest Service connects people to nature and to each other. As a Federal agency in service to the American people, the Forest Service cares for shared natural resources in ways that promote lasting economic, ecological, and social vitality. In doing this, the agency supports nature in sustaining life.” Thus, it is crucial that you analyze all impacts of reasonably foreseeable actions related to this project, while also including the cumulative impacts of this project and other mining projects in the area that will impact this region.

Those that know me, know I love the land, nature, and the outdoors. I actively express my passion for this region in my art form and in my daily life. It is my hope that United States Forest Service land be preserved and protected for generations to come. Feel free to contact me at islaswendyl@gmail.com with any questions or to discuss my concerns in more detail.

Sincerely,

Wendy L. Islas

Santa Cruz County Resident