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To whom it may concern:

As a Nyssa, Oregon resident and farm owner, I'm writing in regard to the Grassy Mountain gold mine. I'm very concerned that a short-term project is going to create permanent, irreversible environmental damage in the area around the Lake Owyhee watershed, and which will have an untold and incalculable impact on the flora and fauna of the proposed mining area. Many people live near Lake Owyhee (it's 25 minutes from our farm), so per Paramount Gold's verbiage that Vale is the nearest population center, I take exception to this comment as there are numerous farms, ranches and residences in the Nyssa and Adrian, Oregon area. (The Nyssa boundary extends almost to Adrian.)

Our property has beautiful views of Mitchell Butte and the Owyhee Canyonlands which is a remarkable area of dark skies and incredible geologic beauty that is actively used year-round by rock hounders, fisherman, hunters, hikers, bird watchers, water recreationists and picnickers who want to enjoy the peace and beauty of Lake Owyhee. Lake Owyhee is the irrigation source (per the Owyhee Irrigation District), for the farms in our area, so it's very concerning that a chemical-process mine is being considered so near the headwaters of Lake Owyhee. This mine will use an untold number of gallons (billions?) of groundwater over the course of the operation, not to mention the additional pressure on groundwater should Paramount's 'Frost' project, 12.5 miles south of 'Grassy' also be approved. And, if Grassy is approved as the first chemical process mine in Oregon, it will open the door to an untold number of additional chemical-process mines in our state. With lithium mines on board (McDermitt Creek, OR and nearby Thacker Pass, NV), my concern is that Malheur County is going to become a mining mecca.

It's inevitable that the watershed will be impacted by drawdown of groundwater for the operation process, including the dewatering process. The impacts of chemicals in the watershed may not be detected for many years; however, for those of us who own farms and intend to pass them on to children/family, the contamination of groundwater that seeps into the Lake Owyhee watershed and the impacts of a drawdown to all forms of flora and fauna is very concerning. Contamination of soil and ultimately springs and groundwater in the vicinity of the mine with no

accounting for damage to lower life forms such as amphibians, reptiles and insects (damselflies, dragonflies, moths, butterflies, etc.), is tragic. With open evaporation ponds it's impossible to protect or prevent insects, amphibians, reptiles and birds from accessing evaporation ponds or the 99.8-acre tailings storage facility that will remain for perpetuity.

1) Land Use folder:

- a. Regarding sodium cyanide (and other chemicals such as ammonium nitrate and diesel per the Petroleum-Contaminated Soils Management Plan) being trucked into the operation, no information has been provided to the public regarding the routes the trucks will take to haul chemicals to the site. Spills are a great concern as highway 20/26 into Vale borders the Malheur River, and if trucks are allowed to use Owyhee Ave. (a very narrow road and the main access road to Lake Owyhee) to access Mitchell Butte Rd. (both listed as mine access points per Land Use sub file 20230130_Comments493, Document Submittal: GMM_figure_2_BLM_Land_Access_Map.pdf.), this cannot be considered a legitimate or safe access road for chemical-hauling trucks. A sodium cyanide spill is an enormous concern in terms of exposure to air, water and soil, not to mention the potential consequences to human and animal health due to its extreme toxicity.
- b. Owyhee Corner, as locals call it, is the junction of highway 201 S and Owyhee Ave. This is a residential area and Owyhee Ave. is a narrow, two-lane road that is the main access road to Lake Owyhee. In addition to the trucks potentially coming through Adrian, Oregon, Adrian has a K-12 school (which my child attends), so this is a huge concern should there be any accidents or chemical spills in this area. I live one mile off of 201 S, and three miles from Owyhee Ave., so residents deserve to have specific information regarding access roads.
- c. The on site 13,000-gallon storage tank will be elevated; will this structure be earthquake- and fire proof? (Our house was rocked by a 6.5 magnitude earthquake that originated in Stanley, ID in March of 2020.) Summer lightning fires are frequent on the range: I understand the mine facility will have sprinklers, but what if the storage tank catches fire? If that should occur, air quality is a great concern.
- d. Per Land Use comment 484 regarding noise analysis: Page 8 of the document states: 'Project construction will create a substantial amount of noise due to blasting for the mine portal, and construction machinery. As noted in the land use application, the nearest population center, Vale, is approximately 22 miles to the north and the nearest cultivated farmland, outside of Owyhee is approximately 10 miles to the east. A single farm located approximately five miles away on the other side of Grassy Mountain.'

Firstly, I'm not sure what 'outside of Owyhee,' means so clarification would be helpful. Secondly, the properties noted above shouldn't be subjected to this type of impact. Have they received notice of the blasting noise and hours?

Secondly, not all farms have 'cultivated land' so any residence regardless of land use needs to be considered. Blasting noise will have adverse effects on livestock, wildlife, amphibians, insects and aquatic life, not to mention people recreating in the vicinity of the mine.

Thirdly, questions regarding blasting:

1) Per the construction phase, how long does Paramount estimate the above-ground blasting phase will take?

2) Will the blasting be limited to certain hours and days?

3) Per the 2017 Wetland Delineation Report, page 2, section C. Precipitation Data and Analysis, paragraph one notes, 'The nearest weather station is at the Owyhee Dam, station number 356405, located **approximately 5.3 miles southeast of the Wetland Study Area.**' I'm using this as an example of the proximity of this project to the Lake Owyhee area. The Owyhee Dam has a Lower Owyhee Canyon viewable wildlife area (12.5 miles from the dam). Below is a link to a Vale BLM brochure about the viewable wildlife area that notes the numerous species that live and migrate through this remarkable area (and this area is in the Pacific Flyway bird migration route). Granted, this brochure references wildlife viewable along the river; however, it gives an idea of the numerous species in this area, including amphibians and reptiles, many of such as bullsnakes, rattlesnakes, lizards, rabbits, hares, ground squirrels, raptors and various birds that reside and migrate through the desert. In addition to wildlife, will people recreating along Lake Owyhee road be subject to blasting noise?

<http://npshistory.com/brochures/blm/or/lower-owyhee-canyon-wwwa.pdf>

Per 20230130 GMM Response to Comment 480-492_494.pdf, the last paragraph of page 7, 'A Noise Baseline Report (Appendix B11)' – **'Two sites were identified as noise sensitive properties, at Lake Owyhee State Park and a residential site along Russell Road.** The baseline report proposed ambient noise limits for the Project consistent with OAR 340 division 35. OAR 340 division 35 also restricts blasting and impulse sounds.' It's difficult for a layperson to understand the specs of these rules; however, per the rule, it appears that blasting could potentially occur within the following hours, so it would be helpful if exact blasting hours could be made public.

(A) Blasting. 98 dBC, slow response, between the hours of 7 a.m. and 10 p.m. and 93 dBC, slow response, between the hours of 10 p.m. and 7 a.m.

(B) All Other Impulse Sounds. 100 dB, peak response, between the hours of 7 a.m. and 10 p.m. and 80 dB, peak response, between the hours of 10 p.m. and 7 a.m.

The life of the mine has varying numbers from approximately 7.8 years to 12 (I've heard and read different figures). If Paramount's 'Frost' project, about 12 miles south of Grassy Mountain, is approved, per Paramount, Frost would use Grassy's processing facilities. Currently, the tailings pit for Grassy will be 99.8 acres. Will the size of the tailings pit be increased if Frost is approved? Per stage 5 of the Reclamation Plan, post-closure monitoring will commence approximately 29 years after cessation of mining; however, the mine tailings pit will remain for perpetuity. Will leaching occur as the tailings pit 'ages'?

Per the Wildlife Baseline Data report, it's hard to believe no microinvertebrates were found in the area springs. Furthermore, in terms of amphibians, many are nocturnal as are badgers, coyotes, owls, bats, moths, migrating birds, etc. Are night time BLM studies conducted to accurately assess all fauna?

In terms of the Reclamation Plan document, the Seed Mixture chart references Forage Kochia as a Forb. This is a non-native (from Asia), very difficult to control species that, although it's nutritious and palatable to cattle in early stages (which is why I assume BLM promotes it), and grows quickly; however, it chokes out native species and can completely take over an area. If left to grow ungrazed, it becomes very tall, has a very tough stalk, and does little to support native wildlife. (I have personal experience!) Crested Wheatgrass is another non-native (from Russia) grass that again, grows quickly and is effective for reclamation; however, so effective it also chokes out other plants and doesn't provide good winter wildlife forage. In addition, cattle don't find it palatable as it's high in silica. Rapid growth of this grass simply adds to the cheatgrass wildfire fuel tank and is being eradicated in some areas due to the fire hazard it poses. (<https://www.hcn.org/blogs/range/fighting-a-pervasive-invader-crested-wheatgrass> and https://cms2.revize.com/revize/elkocountynevada/Grouse/Articles/The_Cowboy_Plan_to_Save_Sage_Grouse_Making_Things_Worse_12_14_11.pdf).

Sagebrush, a nurse plant for other plants such as Indian Paintbrush, isn't easy to reestablish, so BLM should be required to do more to protect the existing native plants and reseed with only regionally native grasses, forbs and shrubs such as sagebrush (on the reseed list) which is critical for survival of species such as the Greater sage-grouse and provides vital nutrition to a variety of species.

Owyhee clover, an endemic species, can be displaced by non-native species, ground disturbance by livestock, spraying and seeding associated with rangeland improvements, road construction, and off-road vehicle traffic. Potential habitat loss from development of mining claims is an additional threat.

<https://oregonconservationstrategy.org/strategy-species/owyhee-clover/>

In closing, there are many concerns I have in regard to this mine, especially since this affects the area I live and recreate in, and because the Lake Owyhee watershed supplies irrigation water to thousands of acres in Malheur County. Should it eventually become contaminated, regardless of how many years down the road, then what? I shudder at the thought of the chemicals this mine will use and the destruction of earth, flora and fauna that will permanently degrade such a pristine, exquisite area for the benefit of a few.

With appreciation for your time,

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