RECLAMATION PLAN APPLICATION

1. Owner(s)/Operator/Agent:

Owner / Operator:
Rise Grass Valley Inc.
PO Box 271
Grass Valley, CA 95945

2. Name (if any) of Mineral Property:

Idaho-Maryland Mine Property

3. Property Owner(s), or owners of surface rights:

Rise Grass Valley Inc.
PO Box 271
Grass Valley, CA 95945

4. Owners of Mineral Rights:

Rise Grass Valley Inc.
PO Box 271
Grass Valley, CA 95945

5. Lessee:

Not Applicable

6. Operator(s):

Operator:
Rise Grass Valley Inc.
PO Box 271
Grass Valley, CA 95945

7. Agent or Process: (Person or company designated by operator as agent performing reclamation)

Not Applicable.

8. Give a brief description of the extent of the mined lands to be involved in this operation.

Include legal description and total acreage.

Parcel Number	Description	Lot Size
09-550-32	SEC 26, TWN 16N, RNG 8E, MDM, PTN N 1/2 26-16-8	20,908 SF (0.48 AC)
09-550-37	SEC 26, TWN 16N, RNG 8E, MDM, PTN NE 1/4 26-16-8	4.47 AC
09-550-38	SEC 26, TWN 16N, RNG 8E, MDM, PTN NE 1/4 26-16-8	40.1 AC
09-550-39	SEC 26, TWN 16N, RNG 8E, MDM, PTN NE 1/4 26-16-8	42,668 SF (0.98 AC)
09-550-40	SEC 26, TWN 16N, RNG 8E, MDM, PTN NE 1/4 26-16-8	5,662 SF (0.13 AC)
09-560-36	SEC 26, TWN 16N, RNG 8E, MDM, PTN N 1/2 SE 1/4 26-16-8	10.25 AC
09-630-37	SEC 36, TWN 16N, RNG 8E, MDM, LOT 6 BET ACRES	21.8 AC
09-630-39	SEC 36, TWN 16N, RNG 8E, MDM & SEC 31, TWN 16N, RNG 9E, MDM, LOT 7 BET ACRES	15.07 AC
06-441-03	SEC 31, TWN 16N, RNG 9E, MDM, PTN NW 1/4 of 31-16-9	15.19 AC
06-441-04	SEC 31, TWN 16N, RNG 9E, MDM, PTN 31-16-9	0.85 AC
06-441-05	SEC 31, TWN 16N, RNG 9E, MDM, PTN W 1/2 of 31-16-9	50.01 AC
06-441-34	SEC 31, TWN 16N, RNG 9E, MDM & SEC 36, TWN 16N, RNG 8E, MDM, PTN LOT 8 BET ACRES	16.01 AC

9. Describe the access route to the operation site:

Access to the Brunswick Industrial Site is provided by gated entrances on both Brunswick Road and East Bennett Road. The primary entrance/exit for employees, vendors, and haul trucks will be from Brunswick Road. The East Bennett Road entrance will be used as an exit for haul trucks and large delivery trucks turning right onto East Bennett Road, for emergency personnel and, as necessary, for equipment movement.

Access to the Centennial Industrial Site is located at Whispering Pines Lane. Only employees and haul trucks will use this entrance.

10. Attach Location and Vicinity Map

(use United States Geological Survey 7-1/2 or 15 minute topographic quadrangle sheet).

See Figure 1, Figure 2, and Figure 3 of the Reclamation Plan prepared by Benchmark Resources.

DESCRIPTION

11. Mineral commodity to be mined:

Gold.

See Section 4.3 "*Material Quantity and Type*" of the Reclamation Plan prepared by Benchmark Resources.

12. Geologic Description:

Briefly describe general geologic setting, with more detailed description of mineral deposit to be mined, and principal minerals or rock types present.

See Section 3.10 "*Geology of the Site and Surrounding Area*" of the Reclamation Plan prepared by Benchmark Resources.

13. Environmental Description:

Briefly describe environment of site and surrounding area. Include existing area land use, soil, vegetation, ground water elevation, surface water characteristics, average annual rainfall, and other factors pertaining to environmental impacts and their mitigation and reclamation.

See Section 3 "*Site Description*" of the Reclamation Plan prepared by Benchmark Resources, which includes Section 3.7 "*Existing and Allowed Land Uses*", Section 3.8 "*Site Features, including Utilities and Easements*", Section 3.9 "*Topography, Climate Characteristics, and Soil Types*", Section 3.11 "*Hydrological Setting*", and Section 3.12 "*Biological Setting*".

PROPOSED/EXISTING SURFACE (*) MINING OPERATION

14.

Proposed starting date of operation: 2021 or upon approval of the use permit

Estimates life of operation: 10–80 years

Duration of first phase: N/A

Was the mine in operation continuously since January 1, 1967? No

If Yes, provide proper demonstration.

Is this a new mine?	☐ **Yes**	☒ **No**
Is this an expansion of an existing mine?	☒ **Yes**	☐ **No**
Is this continued mining of lands previously mined?	☒ **Yes**	☐ **No**

15. Operation will be:

☒ continuous ☐ seasonal ☐ intermittent

If seasonal or intermittent, explain in more detail:

16. Operation will be:

☐ **under 5,000 tons per year**

☐ **5,000 – 50,000 tons per year**

☐ **50,000 – 250,000 tons per year**

☒ **250,000 – 1,000,000 tons per year**

☐ **Over 1,000,000 tons per year**

17. Total anticipated production:

Mineral commodities to be removed: 365,000 tons per year

Waste retained on-site *: ~2.2 million tons Brunswick site, ~1.6 million tons Centennial site

Waste disposal of off-site: up to 365,000 tons per year

Maximum anticipated depth: 10,000 feet

***Include surface activities associated with an underground mine.**

18. Mining Method: (check all applicable)

	Open Pit		Gravel/Sand Pit	X	Drill and Blast
	Quarry		Single bench		
	Hilltop				Low level
X	Underground		Sidehill		Tailings Pond
	Rail		Borrow Pit		
	Multiple Bench		Truck to Processing Plant		Clay Pot
	Shovel	X	Conveyor to Processing Plant		Slurry Pump
X	Waste Dump		Dragline		
	Other (specify):		Gravel Bar Skimming		

19. If processing of mined ores or minerals is to be conducted at, or adjacent to the site, describe briefly the nature of the processing, and explain disposal method of tailings or waste from processing.

Mineral processing will be done onsite and produce gold concentrates. Gold concentrates will be shipped offsite by truck to customers in the United States or internationally. Mineral processing will occur 24 hours

a day, 7 days a week. A detailed description of these activities is provided in the Project Description included with this application.

Mineralized rock hoisted from the Brunswick shaft will be placed in the existing concrete silo located on the Brunswick property before processing begins. The mineralized rock may be reduced in size using an underground jaw crusher before hoisting it to the surface.

Mineralized rock will be transported from the concrete silo using chutes and conveyors to a fully enclosed mineral process plant by a covered conveyor system, approximately 335 feet in length. Water is added and the mineralized rock is ground in grinding mills to size before the gold is recovered. A gravity concentrator in the grinding circuit recovers approximately 70 percent of the gold. The slurry of ground mineralized rock and water that results from this process is pumped to a second gold recovery system, sulfide flotation, where the remaining recoverable gold is captured in a sulfide mineral concentrate. The majority of sulfide minerals are recovered in the sulfide mineral concentrate for shipment off-site. Each method will remove gold from the mineralized rock into a concentrate. The gold concentrate will be dewatered using thickeners and filter presses before it is bagged for off-site shipment. The gravity gold concentrate may be further concentrated on-site using gravity and water to create gold doré bars. Approximately 20 tons of gold concentrate will be produced and bagged on-site per day.

Sand tailings (waste) from the gold recovery process will be dewatered and used for either backfill for the underground mine or stockpiled for transport and use as engineered fill. Sand tailings during backfilling will be transferred to the paste backfill plant, where the particles will be dewatered and mixed with cement into a paste. The paste will be pumped back underground and used to backfill mining voids. Sand tailings not used for backfill will be either directly loaded into trucks in the process plant or stockpiled inside the building. Stockpiled sand tailings will be loaded into transport trucks with a front-end loader during daytime hours. Sand tailings not used as underground backfill will be transported for use as engineered fill.

20. Estimate quantity (gallons per day). and quality of water required by the proposed operation, specifying proposed sources of this water; method of its conveyance to thesite; quantity and quality of used and/or surplus water; and disposal of used and/or surplus water.

The Idaho-Maryland Mine will have a surplus of water from the natural groundwater flow into the underground workings. Once dewatering is completed, approximately 1.9 cfs, or 850 gpm (approximately 1,224,000 gallons per a day), are estimated to be pumped to the surface and settling pond. This water will support all project-related water demand (i.e., mining and processing activities). The process plant will run on a closed circuit.

Groundwater consumed during operations is estimated to be 123,000 gallons per day. Water consumption includes water vapor in ventilation air, cemented paste backfill, concentrates and engineered fill, and dust control and compaction of engineered fill. The following list provides a description of project elements consuming groundwater:

- Underground mining service water: This includes water use for dust suppression in rock drills and blasted rock piles, which is piped into the mine workings. No net consumption of water will result from these activities because water in underground workings is pumped to the surface for reuse.
- Water Vapor in Ventilation: Ventilation air flow through the mine working will become saturated with water vapor, consuming approximately 40,000 gallons per day of water.
- Cemented Paste Backfill: Water is needed to transport and bind the cemented paste backfill underground. This water is permanently retained in the backfill or used in the hydration of cement. Backfilling will consume approximately 20,000 gallons of water per day, assuming a 15 percent water content by mass and 500 tons per day of backfill placed.
- Gold Concentrates and Engineered Fill: Concentrates and engineered fill shipped off-site will contain approximately 24,000 gallons of water per day.
- Dust Control and Compaction: Active fill areas and unpaved surfaces require water to control fugitive dust and engineered fill placed at the Brunswick Industrial Site must be compacted to meet design standards. These activities are estimated to consume up to 42,000 gallons per day of water.

An average of approximately 5,700 gallons per day of potable water will be purchased from NID for sinks, toilets, and showers installed in buildings at the Brunswick Industrial Site.

Water needed for compaction and dust suppression during activity at the Centennial Industrial Site will be purchased from NID. Approximately 42,000 gallons of water per day may be required for dust suppression and compaction. Compacting 8 hours per day and 5 day per week requires water service of up to 125 gallons per minute.

21. If the nature of the deposit and the mining method used permit, describe and show the steps or phases of the mining operation that allow concurrent reclamation. Include a proposed time schedule for such concurrent activities.

See Section 5.12.4 "*Closure of Openings*" and Section 5.13 "*Phased Reclamation*" in the Reclamation Plan prepared by Benchmark Resources. Placement of engineered fill at the Centennial Industrial Site and Brunswick Industrial Site will occur concurrent with underground exploration and mining activities. Upon completion of underground mining, access to underground workings will be closed consistent with federal and state regulations. Upon completion of aboveground mineral processing and off-site hauling of engineered fill, dewatering will stop; related piping will be removed; and the equipment, vehicles, and the general contents of all structures on-site will be removed; however, most structures, paved surfaces, roads, and site fencing and gating will remain to support the site's postmining industrial land use.

22. Attach map of the mined lands, and/or suitable aerial photographs, and/or topographic maps showing:

a. ☒ Boundaries and topographic details of the site.

b. ☒ Location of all streams, roads, railroads, water wells, and utility facilities within 500 feet of the site.
c. ☒ Location of all currently proposed access roads to be constructed in conducting the surface mining operation(s).
d. ☒ Location of areas to be mined, and of waste dump and tailings pond.
e. ☒ By use of color symbol or overlay, depiction of separate mining phase if applicable (see Item #21).
f. ☒ The source of map base, orientation (north arrow), and scale (e.g. 1" = 500') of the map.

See Sheet 1 through Sheet 6 included in the Reclamation Plan prepared by Benchmark Resources.

23. Indicate an overlay map of Item #22, or by color symbol on map, those areas to be covered by the reclamation plan.

Size of area: 175 acres

See Sheet 1 through Sheet 6 included in the Reclamation Plan prepared by Benchmark Resources.

24. Describe the ultimate condition of the site and specify proposed use(s) or potential use(s), of the mined lands, as reclaimed. If future mining is designated as the future use, explain essential reclamation features that will stabilize slopes, slope drainageways, vegetation and waterways.

The reclaimed land use plan for the land following mining is industrial and open space. Additional surfaces for industrial use will be created on-site through placement of engineered fill, a by-product of the underground mining. The facilities and infrastructure added to the Brunswick Industrial Site will remain on-site to support future industrial uses. Open space on the sites will include Wolf Creek and a 100-foot non-disturbance buffer along Wolf Creek and 59 acres of undisturbed area on the Brunswick Industrial Site, including South Fork Wolf Creek and surrounding areas.

See Section 5.4.2 "*Final Slopes*", Section 5.4.3 "*Compaction*", Section 5.5 "*Grading, Drainage, and Erosion Control*", and Section 5.8 "*Revegetation*" of the Reclamation Plan, prepared by Benchmark Resources, for a description of the reclamation features that will stabilize slopes, slope drainageways, vegetation and waterways.

25. Describe the relationship of the interim uses, other than mining, and the ultimate physical condition to:

a. Zoning regulations
b. General Plan and Plan Elements

See Section 3.7 "*Existing and Allowed Land Uses*" of the Reclamation Plan prepared by Benchmark Resources.

26. Provide evidence that all owners of a possessory interest in the land have been notified of the proposed use(s) or potential uses, identified in Item #24. Attach copy of notarized statement of acknowledgment, etc.

Rise Grass Valley, Inc. is the sole owner of the property.

27. Describe soil conditions and proposed soil salvage plan:

See Section 3.9.3 "*Soil Types*" and Section 5.3 "*Soil Resources, Salvage, and Storage*" of the Reclamation Plan prepared by Benchmark Resources.

28. Describe methods, sequence, and timing, for bringing reclamation of the land to its end state. Indicate on map (Items #22 - #23) or on diagrams as necessary. Include discussion of the following items:

a. Backfilling and grading
b. Stabilization of slopes
c. Stabilization of permanent waste dumps, tailings, etc.
d. Rehabilitation of pre-mining drainage.
e. Removal, disposal or utilization of residual equipment, structures, refuse, etc.
f. Control of contaminants, especially with regard to surface runoff and ground water.
g. Treatment of streambeds and streambanks to control erosion and sedimentation.
h. Removal of minimization of residual hazards
i. Resoiling and revegetation, with evidence that selected plants can survive the specific topography, soil, and climate of the site.

This information is provided in the following sections of the Reclamation Plan prepared by Benchmark Resources:

a–d. Section 5.4 "*Geotechnical*" and Section 5.5 "*Grading, Drainage, and Erosion Control*"
e. Section 5.12 "*Removal and Closure Activities*"
f. Section 5.10 "*Environmental Protections*"
g. Section 5.5 "*Grading, Drainage, and Erosion Control*"
h. Section 5.12 "*Removal and Closure Activities*"
i. Section 5.8 "*Revegetation*"

29. If applicant plans short-term phasing of reclamation, describe in detail specific reclamation to be accomplished during first phase.

Not applicable.

30. Describe how reclamation of site in this manner may effect future mining at the site and in the surrounding area.

Reclamation activities will not physically or economically preclude future access to mineral resources, should additional recovery be pursued in the future.