


PRELIMINARY DETERMINATION

INITIAL STUDY #2021-006 for USE PERMIT #2021-009 and RECLAMATION PLAN #2021-003, Geofortis Minerals, LLC

DETERMINATION:

On the basis of this Initial Study:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described in the Initial Study have been made a part of the project. A NEGATIVE DECLARATION will be prepared.
- ☐ I find that the project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT will be required.



Maurice L. Anderson,
Environmental Review Officer

4-4-23

Date

Project Title:

Geofortis Pozzolan Use Permit # 2021-009 and Reclamation Plan #2021-003

Lead Agency Name and Address:

Lassen County, 707 Nevada Street, Susanville, CA 96130

Project Location:

The Project site is located in Lassen County approximately 5.5 miles north of the intersection of US Highway (Hwy) 395 and California State Route 70. A.P.N.: 145-030-016-000; 145-050-004-000, 145-050-012-000, and 145-030-017-000.

Proponent's Name and Address:

David McMurtry
Geofortis Minerals, LLC
30 S. Tooele Blvd.
Tooele, UT 84074

General Plan:

Extensive Agriculture; *Lassen County General Plan 2000*

Zoning:

A-1 (General Agriculture District)

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Figure 1: Geofortis Pozzolan Mine Vicinity Map

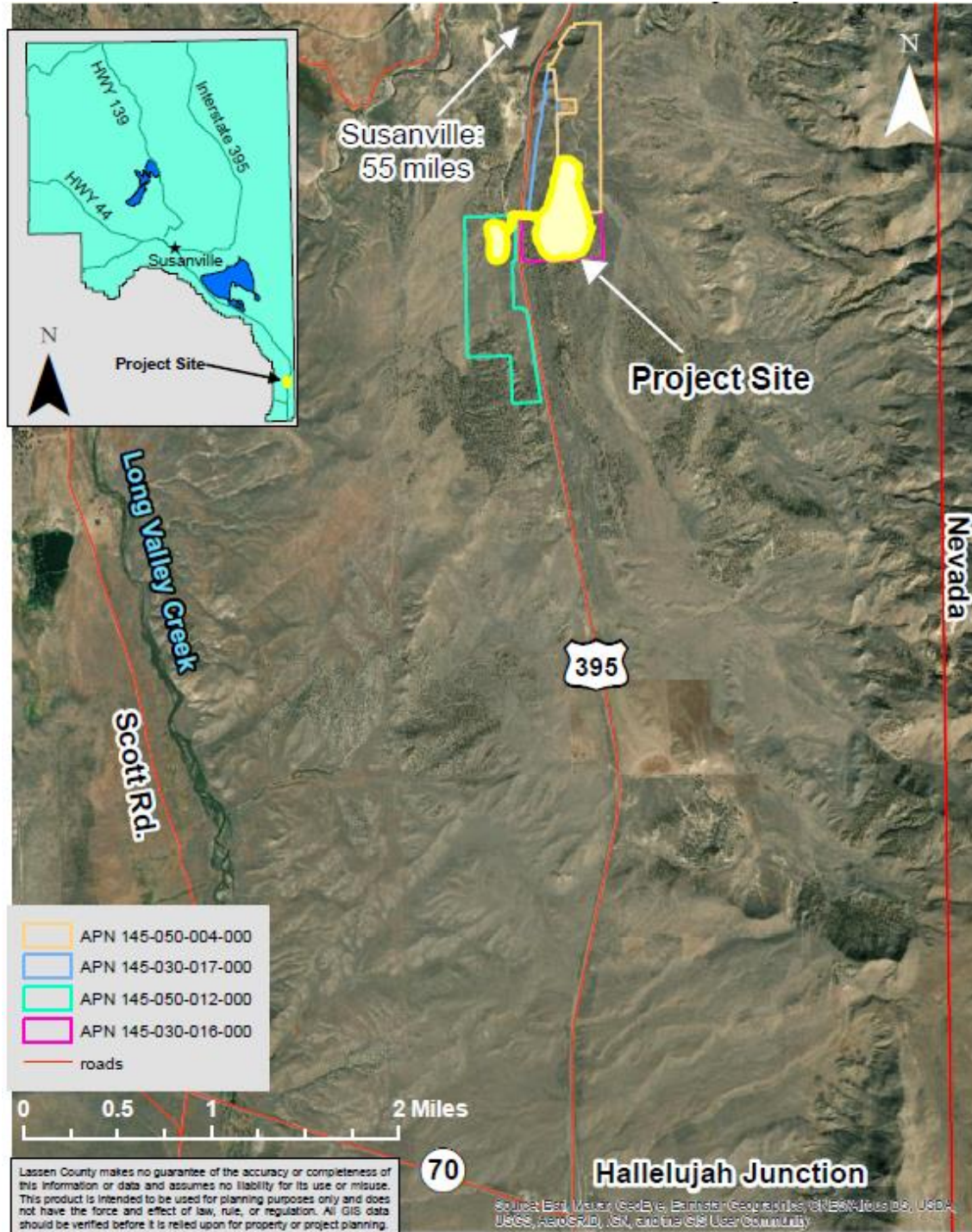
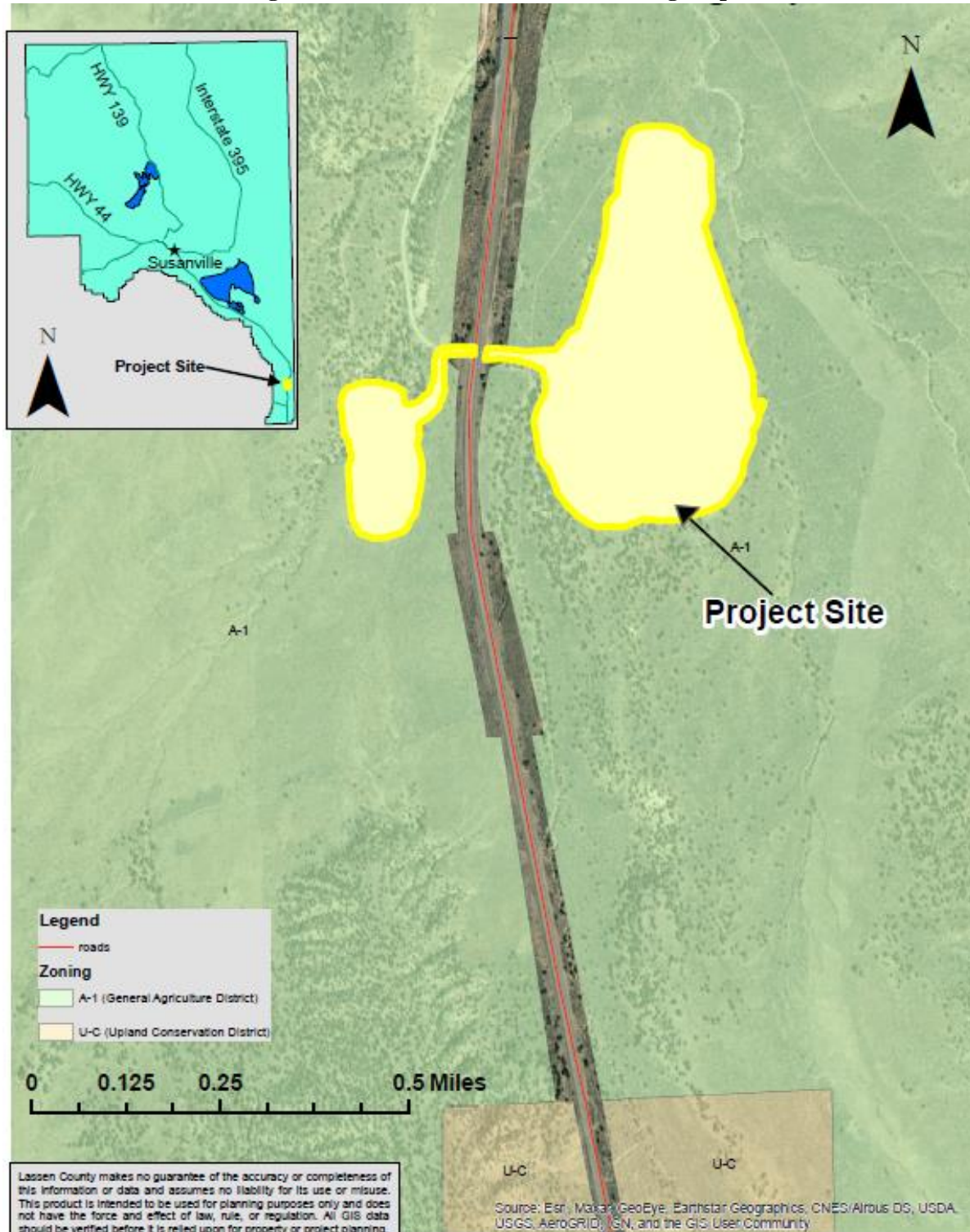


Figure 2: Geofortis Pozzolan Mine Zoning Map



Project Description:

Proposal for a Use Permit and Reclamation Plan to establish an 83-acre pozzolan materials year-round mining operation, with batch mining and screening operations on a seasonal schedule and loading and daily hauling operations on a year-round schedule. Approximately 5 acres would be on Public Lands while the remaining 78 acres is split estate land where the Federal Government retains the mineral rights administered by the BLM.

Pozzolans are a solid material commonly used in concrete as a replacement or a supplement for Portland cement to improve performance, reduce cost, and reduce the carbon footprint of built structures. Currently, the most common source of pozzolan material in the United States is fly ash produced from the combustion of coal at electric power plants. With recent decreases in coal-fired power plants, the availability of fly ash is declining. This Project is proposing the mining of natural pozzolan deposits. Processing of the raw material by grinding it to a fine powder would take place at the proposed off-site mill located in Stead, Nevada for further processing 5 days a week.

The proposed operation would mine approximately 10.61 million cubic yards (~13.1 million tons) of material over a 30 plus-year period, with a maximum production rate of 500,000 cubic yards per year. The operation is planned to occur in three phases.

Project Phases:

Phase	Acres	Material (yd3)	Life (years)
I	35.3	3.45 million	7-14
II	34.9	4.49 million	10-20
III	13.4	0.67 million	1-3
Totals	83.6	8.61 million	18-37

Mining would commence with the access road from Hwy 395 to the Phase I portion of the pit on the east side of the highway. It is proposed that the pit walls would be laid back to an angle no steeper than 1.5:1, with no vertical highwalls proposed. An average of up to 70 truckloads per day would move material off-site at full capacity.

Any growth media encountered would be stripped from the surface prior to mining and stockpiled. All slopes created during the mining operation would be graded to a maximum of 2H:1V at the end of mining. This would include removal of haul roads used during mining. Slope stabilization would be accomplished by recontouring all mined surfaces and reseeded with a BLM-approved seed mix. Revegetation would be monitored to assure compliance with revegetation goals.

Environmental Setting:

The proposed Project site is located on vacant land off of Hwy 395, approximately 14 miles south of Doyle and approximately 5.5 miles north of the intersection of US Hwy 395 and California State Route 70.

The mine would be located on four separate parcels including a 72.690-acre parcel, a 153.230-acre parcel, and a 161.360-acre parcel all owned by Avalanche Funding LLC; and an 80-acre parcel owned by the BLM.

The proposed Project site is undisturbed (apart from some roadways and power transmission corridors) with a cover of sagebrush, grasses and dispersed Utah juniper (*Juniperus osteosperm*). The general topography of the area is hilly terrain and generally slopes to the north.

Migratory and upland game birds are present in the area, such as sparrows, swallows, doves, grouse, chukker, and quail. Several different species of raptors including owls also inhabit the site. Mule deer, antelope, coyote, rabbit, skunk, and rodents also utilize the proposed site. There are no known endangered species that inhabit the Project area boundary or within the vicinity.

Based on field surveys conducted and local topography, the Project is located in an area considered to be highly sensitive for prehistoric, prehistoric, and/or historic cultural resources. Additionally, the surficial geology within Long Valley and the Project area consists of limited exposures of the Hallelujah Formation on ridges and quaternary alluvium overlying the upper and middle members of the Hallelujah Formation. Significant vertebrate fossils have been discovered within the Hallelujah Formation.

ACCESS: Access is by way of Hwy 395 approximately 14 miles south of Doyle, California. Mining would commence with the access road from Hwy 395 to Phase I portion of the pit on the east side of the highway.

NOISE: The Project site is located off of Hwy 395. The closest residence is approximately 2.6 miles south of the Project area. It is reasonable to assume that the ambient conditions of the general vicinity are interrupted by noise generated by vehicles on the highway.

The Lassen County Noise Element, 2021 identifies the County's approach to controlling environmental noise and limiting community exposure to excessive noise levels. The noise produced by resource extraction and received by surrounding land uses (agriculture) shall not exceed 90 dBA Community Noise Equivalent Level (CNEL) (time weighted 24- hour average noise level based on a weighted decibel which is a frequency correction that correlates sound pressure levels with the frequency response of the human ear) at the property line. Noise generation limits are translated into hourly average (L_{eq}) limits in Lassen County Code, §9.65.040.

VEGETATION: The Project site is located within the Central Basin and Range Ecoregion. According to the United States Geological Service (USGS) National Southwest Regional Gap Analysis Program, the vegetation communities present on the Project site include Great Basin Pinyon-Juniper Woodland and Inter-Mountain Basins Big Sagebrush Shrubland.

Based on field surveys conducted by Bec Environmental, Inc. woodland was the dominant habitat type in Phase I and II and included an overstory dominated by Utah Juniper (*Juniperus osterosperma*) with occasional Jeffrey pine (*Pinus jeffreyi*) and an understory dominated by big sagebrush (*Artemisia tridentata* ssp. *Tridentate*). Shrubland was the dominant habitat in Phase III and included big sagebrush (*Artemisia tridentata* ssp. *Tridentate*) with little leaf horsebrush (*Tetradymia glabrata*) as the dominant shrub species.

White woolly buckwheat, also known as ochre-flowered buckwheat, (*Eriogonum ochrocephalum* var. *ochrocephalum*) was found in several areas throughout the Project site. This species is considered 'rare, threatened or endangered' in California and is rated 2B.2 by the California Native Plant Society (CNPS). Species with this rating are eligible for state listing under the California Endangered Species Act. Please see the Biological Survey Report for more information.

WILDLIFE: The Project area is located within Other Habitat Management Area (OHMA) for the greater sage-grouse. Based on the presence of suitable habitat and occurrence reports, sensitive species that may utilize the site include bald eagle (*Haliaeetus leucocephalus*), Brewer's sparrow (*Spizella breweri*), golden eagle (*Aquila chrysaetos*), long-eared owl (*Asio otus*), prairie falcon (*Falco mexicanus*), Swainson's hawk (*Buteo swainsoni*), and western white-tailed jackrabbit (*Lepus townsendii*).

The area is currently segmented by roadways and power transmission corridors which impact the use of habitat by general wildlife.

HYDROLOGY: The Central Basin and Range ecoregion is internally drained by ephemeral streams and once contained ancient Lake Lahontan (Griffith, et al., 2016). Precipitation within the Great Basin regularly falls in winter as snow (Mac et al, 1998). According to the United States Fish and Wildlife (USFW) National Wetlands Inventory Mapper, there are two ravine habitats onsite classified as R4SBA which essentially means that surface water is present for brief periods (from a few days to a few weeks) during the growing season, but the water table usually lies well below the ground surface for the most of the season.

The Project site is located in the Long Valley Groundwater Basin which is designated as a "very low priority basin" by the Department of Water Resources (DWR), signifying that it is not currently at risk for overdraft.

GEOLOGY: The geology of the Project area is composed of north-trending, fault-block ranges and intervening, drier basins. Basement rocks in the area consist of roughly 11 million-year-old Hartford Hill Rhyolite. Long Valley basin fill resulted from a variety of deposition environments including ancient lakes and associated deltas, alluvial fans, and piedmonts. Sedimentary deposits within the basin are interfingered sediments of the Hallelujah Formation that are roughly 9 to 4 million years old (Kelly and Secord 2011), and undifferentiated alluvial sediments shed from surrounding ranges and isolated highlands within the valley.

Basin-and-range topography characterizes the Central Basin and Range Ecoregion: wide desert valleys are bordered by parallel mountain ranges generally oriented north-south (Soulard, 2012).

SOILS: The predominant soils types on the Project site are sandy loam, sandy clay loam, or gravelly sandy loam over mixed alluvium derived from granite, weathered or mixed. Soils are characterized as well drained. The following map units from the USDA Natural Resources Conservation Service (NRCS) Web Soil Survey were identified:

Corral-Glenbrook complex, 10 to 50 percent slopes

Corral-Glenbrook soils are formed from colluvium derived from tuff and/or residuum weathered from tuff. Soil profile: 0-4 inches loam; 4-12 inches sandy clay loam; 12-60 inches weathered bedrock. Soils are well drained and classified as not prime farmland. This soil type is present in Phase III of the Project.

Galeppi sandy loam, 2 to 5 percent slopes, and 5-30 percent slopes

Galeppi sandy loam soils are formed from fan remnants, alluvium derived from granite. Soil profile: 0-18 inches sandy loam; 18-36 inches sandy clay loam; 36-52 inches sandy loam; 52-60 inches loamy sand. Depth to root restrictive layer is greater than 80 inches. Soils are well drained and classified as not prime farmland. This soil type is present in Phase I, II and Phase III of the Project.

Galeppi loamy coarse sand, 5-30 percent slopes

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Galeppi sandy loam soils are formed from fan remnants, alluvium derived from granite. Soil profile: 0-9 inches loamy coarse sand; 9-36 inches sandy clay loam; 36-52 inches sandy loam; 52-60 inches loamy sand. Depth to root restrictive layer is greater than 80 inches. Soils are well drained and classified as not prime farmland.

Rough broken

Rough broken soils are formed from alluvium. Soil profile: 0-15 inches variable material. This soil type is present in Phase I, II and Phase III of the Project.

Reno sandy loam, 2-15 percent slopes

Reno sandy loam soils are formed from alluvium derived from mixed and/or lacustrine deposits derived from mixed. The soil profile includes: 0-2 inches gravelly coarse sand; 2-10 inches sandy loam; 10-26 inches clay; 26-40 inches indurated; 40-60 inches very gravelly loamy sand. Soils are well drained and classified as not prime farmland. This soil type is present in Phase III of the Project.

Barnard stony sandy loam, 2 to 15 percent slopes

Barnard sandy loam soils are formed from alluvium derived from mixed. The soil profile includes: 0-3 inches sandy stone loam; 3-7 inches sandy loam; 7-11 inches sandy clay loam; 11-12 inches clay; 20-26 inches indurated; 26-60 inches very gravelly loamy coarse sand. Soils are well drained and classified as not prime farmland. This soil type is present in Phase I and II of the Project.

Galeppi sandy loam, 8 to 15 percent slopes

Galeppi sandy loam soils are formed from fan remnants, piedmonts derived from mixed alluvium. Soil profile: 0-60 inches alluvium. Depth to root restrictive layer is greater than 60 inches. Soils are well drained and classified as not prime farmland. This soil type is present in Phase III of the Project.

REGULATORY ENVIRONMENT: Lassen County is the lead agency for this Project under the California Environmental Quality Act (CEQA) and the Surface Mining and Reclamation Act (SMARA), and has primary authority for project approval. In addition to Lassen County, the following agencies may have permitting authority over the Project or portions thereof:

- Lahontan Regional Water Quality Control Board (RWQCB)
- Bureau of Land Management (BLM)
- Lassen County Air Pollution Control District (APCD)
- Department of Conservation, Division of Mine Reclamation (DMR)

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SURROUNDING LAND USE:

Zoning and Land Use

	Zoning	Parcel Size (acres)	Land Use Designation (<i>Lassen County General Plan 2000</i>)
Site	A-1	72.690, 153.230, 161.360, and 80	Extensive Agriculture
North	A-1	127, 12.980	Extensive Agriculture
South	A-1/U-C (Upland Conservation District)	142.270, 27.00	Extensive Agriculture
East	A-1	200	Extensive Agriculture
West	A-1	584, 620	Extensive Agriculture

Environmental Factors Potentially Affected:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages.

Table 1: Environmental Factors Potentially Affected

<input type="checkbox"/> Aesthetics	<input type="checkbox"/> Agricultural and Forestry Resources	<input type="checkbox"/> Air Quality
<input type="checkbox"/> Biological Resources	<input type="checkbox"/> Cultural Resources	<input type="checkbox"/> Geology/Soils
<input type="checkbox"/> Greenhouse Gas Emissions	<input type="checkbox"/> Hazard/Hazardous Material	<input type="checkbox"/> Hydrology/Water Quality
<input type="checkbox"/> Land Use/Planning	<input type="checkbox"/> Mineral Resources	<input type="checkbox"/> Public Services
<input type="checkbox"/> Noise	<input type="checkbox"/> Population/Housing	<input type="checkbox"/> Utilities/Service Systems
<input type="checkbox"/> Recreation	<input type="checkbox"/> Transportation/Traffic	
<input type="checkbox"/> Mandatory Findings of Significance		

Environmental Checklist

Checklist and Evaluation of Environmental Impacts: An explanation for all checklist responses is included, and all answers consider the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts. The explanation of each issue identifies a) the significance criteria or threshold, if any, used to evaluate each question; and b) the mitigation measure identified, if any, to reduce the impact to less than significant. In the Checklist, the following definitions are used:

- **Potentially Significant Impact** means there is substantial evidence that an effect may be significant.
- **Less Than Significant with Mitigation Incorporated** means the integration of one or more mitigation measures can reduce the effect from potentially significant to a less than significant level.
- **Less Than Significant Impact** means that the effect is less than significant, and no mitigation is necessary to reduce the impact to a lesser level.
- **No Impact** means that the effect does not apply to the proposed project, or clearly will not impact nor be impacted by the project.

1. AESTHETICS

Aesthetics Environmental Checklist:

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point).	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

GENERAL:

The Project site has not been previously disturbed apart from some roadways and power transmission corridors. There are no "State Scenic Highways" designated by the State of California in Lassen County. There are also no official "County Scenic Highways" recognized by the state. Although the County has not participated in the State's scenic highway program, it has adopted a number of policies related to recognizing scenic highway corridors and implementing protective measures.

DISCUSSION:

a,c) Less Than Significant with Mitigation Incorporated: A vista is a view from a particular location or composite views along a roadway or trail. Given that Hwy 395 is considered a County Scenic Corridor, the proposed Project would have an adverse effect on a scenic vista and degrade the existing visual character of the site.

Lassen County General Plan 2000, Natural Resources Element-Scenic Resources

GOAL N-23: Scenic resources of high quality which will continue to be enjoyed by residents and visitors and which will continue to be an asset to the reputation and economic resources of Lassen County.

NR78 POLICY: The County has identified areas of scenic importance and sensitivity along state highways and major county roads and has designated those areas as "Scenic Corridors". (Refer to the General Plan land use map and related designations in various area plans, which may also be regarded as "scenic highway corridors".) The County will develop and enforce policies and regulations to protect areas designated as scenic corridors from unjustified levels of visual deterioration.

Implementation Measures:

NR-U: The County shall adopt policies to minimize adverse impacts which will significantly deteriorate the scenic qualities of visually sensitive areas.

Excavation would commence on the east side of a ridge located in mining claim 131. The ridge would serve as a natural barrier to minimize views from US Hwy 395. Operations would continue north and east from the access road into claims 132, 137, and 159. During Phase II (mining claims 124-126) of mining operations, operations would continue south and during Phase III, operations would move south along mining claim 121. Operations on the west side of the highway will be below grade; however, a berm may be needed on the eastern boundary to help block the view from the highway when operations first begin (Phase III).

The mitigation measures outlined below would ensure that the scenic and visual effects of the mine would be less than significant.

MITIGATION

Mitigation Measure Aesthetics-1: A berm of reject material (e.g. overburden, topsoil) shall be constructed on the west side US Highway 395 when Phase III operations commence to block mining operations from US Highway 395 travelers.

- b) **No Impact:** The Project site is not located within a State Scenic Highway.
- d) **No Impact:** Mining and reclamation activities would take place only during the day. There would be no new light sources at the site. No buildings or other reflective surfaces would be developed at the site. There would be no impact related to light or glare that could adversely affect views in the area.

2. AGRICULTURE AND FORESTRY RESOURCES

Agriculture and Forestry Resources Environmental Checklist

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220[g]), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104[g])?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

GENERAL:

The Project site has been designated by the Lassen County General Plan, 2000 as Extensive Agriculture, which applies to lands that represent typical rangeland areas with grazing and general rangeland values, natural wildlife habitat, open space, and scenic values, and/or low intensity outdoor-oriented recreational values. Subject to County permit requirements and the provisions of related elements of the General Plan, areas designated Extensive Agriculture may also accommodate natural resource-related production facilities, including but not limited to: mineral extraction and processing, including asphalt and similar plants; saw mills and logging operations; and facilities for the processing of agricultural products.

The Project site does not contain Forest Land, Timber Land, or Timber Land Production Zone (TPZ) as defined by the California Public Resource Code:

Forest Land (12220 G): Land that can support 10-percent native tree cover of any species, including: hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.

Timber Land (4526): Land, other than land owned by the Federal government and land designated by the Board as experimental forest land, which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees. Commercial species shall be determined by the Board on a District basis after consultation with the District committees and others.

Timber Land Production Zone (51104 G): TPZs are areas which have been zoned and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses, as defined in subdivision (h).

DISCUSSION:

- a) **No Impact:** Lands at the Project site are not classified as prime or unique farmlands nor identified as agricultural preserves by the Lassen County General Plan 2000. The Project site is designated as “Farmland of Local Importance” and “Grazing Land” by the Department of Conservation’s Farmland Mapping and Monitoring Program. However, the Project would not convert Prime Farmland, Unique Farmland or Farmland of Statewide Importance.
- b) **No impact:** A-1 zoning designations allow mining by use permit as stated in Lassen County Code §18.16.050. The Project site does not meet the criteria for farmlands as defined in Government Code §51201(c) of the Williamson Act (1965).
- c, d) **No Impact:** The Project site is zoned A-1 and does not contain any timberland or forest land as defined by PRC § 1220(g) or PRC § 4526, nor any timberland zoned TPZ as defined by Government Code § 51104(g).

During the informal consultation process, CAL FIRE stated that, “juniper does not constitute “Timberland” and is therefore not subject to the same timberland conversion permitting.”

- e) **No Impact:** The proposed Project would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.

3. AIR QUALITY

Air Quality Environmental Checklist

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

GENERAL:

The Lassen County APCD is a Local Air District governing the Lassen County Region. Lassen County is part of the Northeastern Plateau Air Basin. The Air Quality Index in Lassen County is classified as "GOOD" for most of the year. Events such as wildfires and inversion layers in winter months can periodically degrade air quality.

State (California Ambient Air Quality Standards (CAAQS)) and Federal (National Ambient Air Quality Standards (NAAQS)) air quality standards have been established for specific "criteria" air pollutants. CAAQS are comprised of standards for visibility reducing particles, sulfates, hydrogen sulfide, and vinyl chloride. NAAQS are composed of health-based primary standards and welfare-based secondary standards.

Lassen County is considered Unclassified/Attainment by NAAQS meaning the air quality in this geographic area meets or is cleaner than the national standard.

DISCUSSION:

- a) **No Impact:** There are no applicable air quality plans for the Northeast Plateau Air Basin or the Lassen County APCD. Therefore, Lassen County is not subject to an air quality plan.
- b) **Less Than Significant:** The Northeast Plateau Air Basin (California Air Basin No. 7) and Lassen County are currently in attainment or unclassified for all criteria pollutants. The proposed Project would not contribute to a cumulatively considerable air quality impact regarding a pollutant for which the air basin is currently in non-attainment. Cumulative air quality impacts would be less than significant.

- c) **No Impact:** The California Air Resources Board describes sensitive receptors as children, elderly, people who suffer from asthma, and others who are at a heightened risk of negative health outcomes due to exposure to air pollution. There are no sensitive receptor locations (hospitals, schools, and day care centers, or other locations that the air district board or California Air Resources Board may determine) within the proposed project boundary (California Health and Safety Code §42705.5(a)(5)).

The closest residences are approximately 2.6 miles south of the Project site on the west side of Hwy 395 and approximately 3 miles south of the Project site on the east side of Hwy 395. The proposed Project would not expose sensitive receptors to substantial pollutant concentrations.

- d) **Less Than Significant Impact:** The Project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people given the Project's remote location and distance from the closest residences (2.6 miles).
- e) **Less Than Significant Impact with Mitigation Incorporated:** The Project is subject to the Lassen County APCD rules and regulations. The district's air pollution regulations comply with the standards established by the U.S. Environmental Protection Agency (USEPA).

RULE 4:2 - Nuisance. A person shall not discharge from any source whatsoever such quantities of air contaminants or other materials which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health or safety of any such persons or the public or which cause or have a natural tendency to cause injury to or damage to business or property. (§41700) (Lassen County APCD Compiled Rules and Regulations, 2017).

RULE 4:0 – Ringelmann Chart. A person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour which is: a. As dark or darker in shade as that designated as No. 2 on the Ringelmann Chart, as published by the United State Bureau of Mines, or b. Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subsection (a) of this Rule (§41701) (APCD Compiled Rules and Regulations, 2021).

Section 93115 of the California Code of Regulations; Airborne Toxic Control Measure for Stationary Compression Ignition (CI) Engines would apply to any stationary CI engine on site with a rated brake horsepower greater than 50 (>50 bhp).

The operator would be held to the following standards to the satisfaction of the Lassen County APCD:

- a. The applicant shall implement all dust control measures in a timely manner during all phases of project development and construction.
- b. Increased water frequency is required whenever wind speeds exceed 15 miles per hour (mph).
- c. All material excavated, stockpiled, or graded shall be sufficiently watered, treated or converted to prevent fugitive dust from leaving the property boundaries and causing a public nuisance or a violation of an ambient air standard.

- d. All areas (including unpaved roads) with vehicle traffic shall be watered or have dust palliative applied as necessary for regular stabilization of dust emissions.
- e. All land clearing, grading, earth moving, or excavation activities on a project shall be suspended as necessary to prevent excessive windblown dust when winds are expected to exceed 20 mph.
- f. All on-site vehicle traffic shall be limited to a speed of 15 mph on unpaved roads.
- g. All inactive disturbed portions of the development site shall be covered, seeded, or watered until a suitable cover is established.
- h. All material transported off-site shall be either sufficiently watered or securely covered to prevent public nuisance.

This Initial Study will be referred to the Lassen County Air Pollution Control Officer for comment, as said officer is charged with enforcing the rules and regulations pertaining to air quality known as the Rules and Regulations of the Lassen County APCD (Rule 1:1-Title).

As a condition of approval, the Project applicant would be required to send a copy of an Authority to Construct/Permit to Operate from the Lassen County APCD to the Lassen County Planning and Building Services before commencing operations.

With the implementation of Mitigation Measure Air-1, this impact would be less than significant.

MITIGATION:

Mitigation Measure Air-1: A water truck would be used for dust mitigation and if dust becomes a problem, spray bars or other methods shall be installed.

4. BIOLOGICAL RESOURCES

Biological Resources Environmental Checklist

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to,	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

GENERAL:

A Biological Assessment (Appendix C) was completed for the Project area (BEC, 2020). There were no sensitive wildlife species observed within the Project area, but potential low-quality habitat exists for 12 sensitive species and potential habitat exists for 8 sensitive species. No raptors nor raptor nests, burrowing owls nor suitable burrows, sage grouse nor pygmy rabbits nor sign were observed during the field surveys. White woolly buckwheat was identified in the Project area and buffer area (BEC, 2020).

The Lassen County General Plan 2000, Natural Resources Element-Vegetation:

GOAL N-8: Protection of rare and endangered plant species balanced with the need to sustain productive, multiple land uses when possible.

NR28 POLICY: The County recognizes the need to identify and provide reasonable measures for the protection of rare and endangered plant species in the consideration of projects and land use decisions.

Implementation Measure:

NR-K Pursuant to the California Environmental Quality Act, the County shall consider the impacts of proposed projects on rare and endangered plant resources and shall require necessary mitigation measures to avoid, reduce, or compensate for the extent of significant disturbance.

The Lassen County General Plan 2000, Wildlife Element:

GOAL W-1: To protect and enhance the overall health of wildlife habitats and special resource areas to maintain healthy, abundant and diverse wildlife populations.

WE-1 POLICY: The County supports the management of wildlife resources in ways that enhance the health and abundance of wildlife populations and the diversity of species and their habitats and which, at the same time, balance management policies and program objectives with the range of social and economic needs for which the County is also responsible.

WE-2 POLICY: The County supports the cooperative identification of “areas of significant wildlife value” or similar designations for areas where it is demonstrated by sound biological science that the habitat values are of significant importance to the health and/or survival of one or more species of wildlife. The County may apply a special designation to these areas, and/or agree to support specific resource management objectives, policies and voluntary programs to protect wildlife resources within these areas.

Implementation Measure:

WE-E: In review of project proposals, the County will continue to utilize the California Environmental Quality Act process to evaluate the potential for significant adverse impacts upon wildlife resources and will require appropriate related project decisions and necessary mitigation measures.

DISCUSSION:

- a, e) Less Than Significant with Mitigation Incorporated:** Ground disturbance from grading, mining and transportation activities in the area would disturb 83 acres of habitat. This disturbance is adjacent to Hwy 395 and has been segmented by roadways and power transmission corridors.

No plants were observed that are listed under the federal or state endangered species acts or considered sensitive by the BLM. White woolly buckwheat was found in several areas throughout the Project site. This species is considered ‘rare, threatened or endangered’ in California and is rated 2B.2 by the California Native Plant Society (CNPS). Furthermore, according to CNPS’s Rare Plant Inventory, the white woolly buckwheat is known to exist in California only within Long Valley with the its biggest threat being mining.

Species with this rating meet the definitions of the California Endangered Species Act of the California Fish and Game Code, and are eligible for state listing. Impacts to these species or their habitat must be analyzed during preparation of environmental documents relating to CEQA as they meet the definition of Rare or Endangered under CEQA Guidelines §15125(c) and/or §15380.

As stated in the BLM’s Environmental assessment, “*A white woolly buckwheat conservation plan will be submitted and approved by the BLM and Lassen County to protect this species prior to ground disturbance: All individual plants found within the mine area will be transplanted to a project nursery for re-planting during reclamation.*” Furthermore, in a comment letter from CDFW to the BLM during the Environmental Assessment review, CDFW states “*The Department strongly encourages the Project Applicant to avoid this species. If it cannot do that, mitigation measures to restore this species at a ratio of 2:1 or more should be developed.....The (mitigation) measure should include at a minimum the following:*

- *How will seed be collected?*
- *How will seed be stored?*
- *If seed is to be grown out into container stock who will be doing that?*
- *Watering regime?*
- *How often will the species be monitored?*
- *Where will the mitigation take place?*

- *What are the performance standards (number of plants, etc.)?*
- *Length of maintenance and monitoring period?"*

Implementation of mitigations measures Bio-1, Bio-2 and Bio-3 would reduce this impact to less than significant.



Figure 3: *Eriogonum ochrocephalum* var. *ochrocephalum* near Project site

As a condition of approval, baseline vegetative density, cover and species richness shall be provided to Lassen County and CDFW prior to issuing an authorization to operate. This information is necessary to calculate success criteria onsite.

For 12 of the 20 sensitive animal species that could inhabit the area, habitat has been described as "low quality". For the greater sage-grouse (GRSG) the habitat is identified as Other Habitat Management Area (OHMA) in the Approved Resource Management Plan Amendments (BLM, 2015). The habitat for the GRSG was described as "low quality" due the lack of dense sagebrush cover. Nesting habitat was not observed and foraging habitat was also described as "low quality". No suitable lek habitat was observed during surveys. Due to the proximity of Hwy 395 and other roadways and power transmission corridors, the area is not conducive for occupation by the GRSG.

The USFWS Environmental Conservation Online System (USFWS ECOS) shows that the range of the Carson wondering skipper (*Pseudocopaeodes eunus obscurus*), which is listed as endangered under the Federal Endangered Species Act, includes the Project area (2021). However, the habitat in the Project area does not provide the alkaline, moist soils, or salt grass flats required for breeding and larval host plants. Based on the lack of alkaline soils and breeding habitat, negligible potential exists for this species to be present within the Project area or impacted by the Project. (BEC, 2022)

The monarch butterfly was petitioned to be listed under the federal Endangered Species Act in 2014 and in 2020, the USFWS determined listing the species as threatened or endangered is warranted but precluded by higher priority actions (USFWS, 2020a). The monarch may be

present in the region based on available information, as is the case throughout most or all of the northern California and northwest Nevada region. However, the Project area does not provide habitat for breeding, overwintering, or other aspects required for the species. Therefore, the species is not likely to be affected by Project activities. Based on the lack of such habitat and a lack of adequate nectar producing plants, negligible potential exists for this species to be present within the Project area or impacted by the Project.

Migratory and upland game birds are present in the area, such as sparrows, swallows, dove, grouse, chukker, and quail. Several different species of raptors including owls inhabit the area. Mule deer, antelope, coyote, rabbit, skunk, and rodents also utilize the area. There are no known threatened or endangered species that inhabit the Project area boundary or within the vicinity.

Ground disturbance from grading, mining and transportation activities in the area creates a need for noxious and invasive species management. These species are rapid colonizers of disturbed soil and have a much higher probability of being introduced to the site from other areas due to its high visitation rates. Implementation of Mitigation Measure Bio-4, Bio-5, and Bio-6 would reduce this impact to less than significant.

MITIGATION:

1. **Mitigation Measure Bio-1:** In order to reduce impacts to the white woolly buckwheat (*Eriogonum ochrocephalum* var. *ochrocephalum*) from mining activities, all individual white woolly buckwheat plants within the mine footprint shall be transplanted to a clearly marked onsite project nursery for seed collection. Transplants at the nursery shall be monitored to ensure they are viable for reclamation purposes.

Prior to transplanting, wild seed from the existing plants shall be collected at the appropriate time of year, by a qualified botanist, and shall be stored using scientifically sound collection and storage techniques. Success standards to restore this species at a ratio of 1:1 or more shall be achieved (number of individual plants established is equal to or greater than the number of plants identified in the Biological Report).

All preservation areas including the onsite nursery shall be mapped and protected. All maps shall be provided to Lassen County and the California Department of Fish and Wildlife (CDFW). Monitoring methods shall occur according to the revised SMARA Reclamation Plan. Mine workers shall be trained to protect this species.

2. **Mitigation Measure Bio-2:** The proposed seed mix, which shall include the white woolly buckwheat (*Eriogonum ochrocephalum* var. *ochrocephalum*), planting rate and success criteria shall be developed in consultation with the Bureau of Land Management and the California Department of Fish and Wildlife, and approved by County staff and incorporated into the reclamation plan. The proposed mix shall be tested on a 32-foot by 32-foot test plot/s at the start of mining. The operator shall be responsible for maintaining and monitoring the plot/s to determine the most viable seed mix and planting/maintenance techniques before reclamation begins.

Mitigation Measure Bio-3: A specific white woolly buckwheat (*Eriogonum ochrocephalum* var. *ochrocephalum*) Conservation Plan shall be submitted and approved by the BLM and Lassen County to protect this species prior to additional ground disturbance (prior to additional vegetation removal).

Mitigation Measure Bio-4: The Project area shall be surveyed semi-annually for invasive weed species within mined/reclaimed areas. If noxious weeds are encountered, documentation of their location and extent shall be provided to the Bureau of Land Management and Lassen County. If a limited number of weeds are discovered, they shall be pulled, placed in a plastic bag, sealed, and taken to a landfill. For more intensive infestations, the operator shall obtain approval from the BLM authorized officers prior to herbicide application.

Mitigation Measure Bio-5: Vehicles and equipment that are working in known noxious weed infestations, shall be cleaned prior to entering the Project area at the initiation of work. Vehicles that travel through known noxious weed infestations throughout the duration of the work shall be required to re-clean equipment and vehicles before entering the Project area.

Mitigation Measure Bio-6: Reclamation shall be concurrent with mining operations and shall commence within 2 years of mining on each subsequent phase (i.e. Phase I reclamation shall begin within 2 years of mining activities on Phase II and Phase II reclamation shall commence within 2 years of Phase III mining operations. All reclamation shall be completed (aside from monitoring of vegetation until success criteria are met) within 5 years of conclusion of Phase III mining operations.

b) **Less than Significant:** Fish and Game Code (FGC) §1602 requires any person, state or local governmental agency, or public utility to notify the CDFW prior to beginning any activity that may do one or more of the following:

- Divert or obstruct the natural flow of any river, stream, or lake;
- Change the bed, channel, or bank of any river, stream, or lake;
- Use material from any river, stream, or lake; or
- Deposit or dispose of material into any river, stream, or lake.

“Any river, stream, or lake” includes those that are dry for periods of time as well as those that flow year-round. During the informal consultation process, CDFW stated that the Project applicant shall notify the Department (CDFW) pursuant to FGC §1600 et seq. prior to the applicant’s commencement of any activity that will substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of a river, stream, or lake, or use material from a streambed (Appendix H).

The Biological Assessment (Appendix C) does not discuss riparian areas within the proposed project boundary and therefore, it is assumed that any riparian habitat that may be present within the ephemeral washes is not significant enough to mention.

As a condition of approval, the applicant shall submit the permit/agreement with CDFW or a letter from CDFW stating that an agreement is not necessary to Lassen County before an Authorization to Operate is issued.

- c) **Less than Significant:** The proposed access road crosses a wash on the west side of Phase I operations. A culvert and headwall would be installed to direct stormwater under the access road. Three diversion channels will be constructed which are described in the Hydrology Study and Diversion Channel Design Parameters (Appendix D) submitted to the County on January 17, 2023.

During an informal consultation in 2018, the Lahontan RWQCB stated “for any diversion or alteration of a drainage the proponent must contact the U.S. Army Corp of Engineers for possibly working in a water of the U.S.”. If the U.S. Army Corps of Engineers issues a permit under §404 of the Clean Water Act, the Lahontan RWQCB would require an application for a Water Quality Certification. CDFW would also have to be contacted regarding a stream alteration agreement. If the U.S. Army Corps of Engineers does not issue a permit under §404 of the Clean Water Act, then an application could be submitted to the Lahontan RWQB for possible permitting under California law only.

As a condition of approval, proof of permitting under §404 of the Clean Water Act or a letter from the U.S. Army Corps of Engineers stating that permitting is not necessary shall be submitting to Lassen County before an Authorization to Operate is issued.

- d) **Less Than Significant with Mitigation Incorporated:** The Migratory Bird Treaty Act (MBTA) protects migratory birds and their nests and the Project site could support some of these species, including sensitive species and their nests. Within the Great Basin, the breeding season typically occurs from March 1st through August 31st. In order to minimize the potential impacts to nesting birds, nest surveys would be conducted prior to any new excavation. The operator would have to comply with the MBTA and avoid potential impacts to protected birds with in the Project area.

Open or uncapped vertical pipes (fencing, gates, or other materials with open holes) pose a hazard to wildlife, especially birds. Viewed from the air, these pipes appear to provide an attractive nest hole for a variety of small birds and other wildlife. For example, a bird flies in, looking for a place to build a nest, the tight confines of the pipe prevent the bird from extending their wings to fly, and the smooth circular interior is impossible to climb. Trapped in a small space with no food or water, birds struggle until they slowly die of stress, starvation, or dehydration. The implementation of Mitigation Measures Bio-7 and Bio-8 which are also described in the Mining Plan and the BLM’s final Environmental Assessment would reduce impacts to a less than significant level.

As an alternative to generator use, the applicant may operate the crushing and screening spread with grid power stemming from a power line located approximately 0.5 miles north of the access road. PSRE would provide an on-site electrical transformer to service the operation. The District manager for PSRE responded to an informal consultation request and stated:

“PSREC is required to follow Rural Utilities Service Requirements, CPUC G.O 95, and NESC specifications when building new or retrofitting existing overhead power lines.

These requirements include a Raptor Design Specification which increases clearance between conductors (depending on line voltage) to a minimum of 60 inches between energized conductors. In the event of retrofitting existing lines we [PSREC] will install raptor protection devices on the cross arms such as Raptor Triangles or a coverup device attached to the wire and insulator that extends approximately 36” in each direction from the cross arm.

Overhead transformer installations have similar cover on the jumper wires and bushings to prevent not only avian contact but rodents as well.

In areas identified as high-density avian activity, PSREC will also install flight diverters suspended from the conductor. These devices are either swinging or fixed, reflective for higher visibility. We will install these near waterways to deflect waterfowl from flying into the lines.

Unfortunately, we cannot prevent all wildlife contact with high voltage power lines but we do strive to keep it to a minimum.

Should Geofortis Minerals move forward with their project and request electric service from PSREC, we will adhere to all requirements and best practices when installing new overhead lines to the facility.

Additionally, PSREC is urging all new services to be installed underground where feasible.”

Fencing and gates would be installed at the new access road and areas being actively mined to limit access for security and safety purposes before any temporary closures. Fences limit travel and can cause injury and death if an animal gets snagged or tangled. In order reduce the impact of fencing on wildlife, implementation of Mitigation Measure Bio-9 is necessary which is based off of CDFW’s suggested Colorado Parks & Wildlife “Fencing with Wildlife in Mind” manual during the informal consultation process.

MITIGATION:

Mitigation Measure Bio-7: All infrastructure for the Project shall be designed and constructed in a manner that does not allow open pipes that birds or other wildlife could be trapped in. This includes fencing, gates, or other materials with open holes. All pipes shall be capped or secured so that wildlife cannot be confined. This shall not include culverts larger than 12 inches in diameter.

Mitigation Measure Bio-8: If surface disturbing activities must occur during the migratory bird nesting season from March 1st to August 31st, pre-construction avian surveys shall be conducted in appropriate habitats by qualified biologists not more than seven days prior to surface disturbing activities commencing. All survey results shall be sent to Lassen County and CDFW.

The specific area to be surveyed shall be based on the scope of the surface disturbing activities, as determined by a qualified biologist, in coordination with the authorized officer's representative. If ground disturbing activities do not take place within seven days of surveys, the areas shall be resurveyed. If nesting migratory birds are detected during surveys, appropriate buffers determined in coordination with CDFW would be applied. Buffers shall remain in effect until the qualified biologist determines the young have fledged or the nest has failed; this determination shall be communicated to Lassen County and CDFW for review and approval. After areas have had vegetation removed and are part of the active mining operation, no future surveys shall be required.

Mitigation Measure Bio-9: Fencing shall be smooth wire (barbless) and allow wildlife to jump over or crawl under easily. The top wire shall be no higher than 42 inches and the bottom wire shall be a minimum of 16 inches above the ground. All fencing and gates shall be removed upon completion of the Project.

- f) **No Impact:** There are no Habitat Conservation Plans, Natural Conservation Community Plans, or other adopted plans that would conflict with the goals and objectives of the mining and reclamation plan.

5. CULTURAL RESOURCES

Cultural Resources Environmental Checklist

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

GENERAL:

Based on field surveys conducted and local topography, the Project is located in an area considered to be highly sensitive for prehistoric, prehistoric, and/or historic cultural resources. Flats near-streams, springs, and seeps are sensitive for archaeological sites. Indigenous populations used the local region for seasonal and/or permanent settlement, as well as for the gathering of plants, roots, seeds, domestic materials, and hunting seasonal game. Historically, Euro-Americans utilized the region for farming and transportation opportunities. The Northeast Information Center (NEIC) was contacted to review official maps and records for cultural resources surveys conducted within the Project Area. In a letter dated October 4,

2021, NEIC confirmed that the applicant hired Broadbent & Associates to conduct a Class III Cultural Resources Inventory Report (Appendix F).

DISCUSSION:

a, b, d) Less than significant: A Class III Cultural Resources Inventory Report for the Project was conducted in 2018 by Broadbent & Associates. No historic properties would be affected by the proposed Project. During any phase of parcel development, if any potential prehistoric, protohistoric, and/or historic cultural resources are encountered, all work shall cease in the area of the find until a qualified archaeologist examines the site and materials.

If human remains are discovered, California Health and Safety Code §7050.5 requires you to protect the discovery and notify the county coroner, who would determine if the find is Native American. If the remains are recognized as Native American, the coroner shall then notify the Native American Heritage Commission (NAHC). California Public Resources Code (PRC) §5097.98 authorizes the NAHC to appoint a Most Likely Descendant (MLD) who would make recommendations for the treatment of the discovery.

c) Less Than Significant with Mitigation Incorporated: The surficial geology within Long Valley and the Project area consists of limited exposures of the Hallelujah Formation on ridges and quaternary alluvium overlying the upper and middle members of the Hallelujah Formation. Significant vertebrate fossils have been discovered within the Hallelujah Formation.

A field survey was completed by a qualified paleontologist which included the Project area and extended to known outcrops of the Hallelujah Formation adjacent to the Project boundary. Significant paleontological resources may be encountered. The transitional zone between the upper sandy member and the middle member of the Hallelujah Formation (considered to have the most potential for significant vertebrate fossils to occur) is only expected to be encountered in Phase III of the Project (BEC, 2020).

Two new fossil localities were discovered during the paleontological field survey of the proposed mine site and the relevant sections of the surrounding Hallelujah Formation.

Mitigation Measure Paleo-1: A Paleontology Resource Protection Plan shall be prepared by a qualified Paleontologist and must be approved by Lassen County prior to ground disturbance. A training program shall be provided to all workers at the mine site.

6. ENERGY

Energy Environmental Checklist

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
consumption of energy resources, during project construction or operation?				
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

GENERAL:

One of the goals listed in the Lassen County General Plan 2000 is the conservative management of Lassen County's energy resources so that those resources can be developed and utilized for the benefit of County residents with a high degree of efficiency and productivity.

The Lassen County Energy Element establishes policies and implementation measures which shall be applied by the County as guidelines in the review and consideration of project proposals, and in the promotion of energy conservation:

GOAL N-17: Conservative management of Lassen County's energy resources so that those resources can be developed and utilized for benefit of County residents with a high degree of efficiency and productivity.

- Policy NR-6: The County advocates, and encourages federal and state agencies to conduct or help fund resource assessments and other studies to evaluate the availability of energy resources, and to facilitate efficient and well-designed projects which can capitalize on those resources with acceptable levels of environmental impact and compatibility with other land uses and resource values.
- Policy NR-62: In the course of adopting policies pertaining to energy resources in other County planning elements and area plans, the County may consider additional and more specific policies and measures to manage those resources.
- Policy NR-63: The Energy Element of the Lassen County General Plan shall provide specific policies and measures pertaining to the conservation and management of energy resources, as well as the siting and development standards of projects proposing to utilize those resources.

DISCUSSION:

- a) **Less Than Significant Impact:** Energy usage would be proportionate to the volume of material produced from the mine. The proposed end date for the mine is 2070. The electricity and fuel demands of the Project would not exceed local or regional supplies during its operational period. Following reclamation of the site, the Project would no longer require fuel or electricity.

As an alternative to generator use, the applicant may operate the crushing and screening spread with grid power stemming from a power line located approximately 0.5 miles north of the access road. PSREC would provide an on-site electrical transformer to service the operation. Powerlines,

including all poles and cables, would be removed from the Project area following the completion of the Project.

Truck trips are estimated at 35 loads per day with a maximum 55 loads per day. The Project would be a year-round operation, with mining and screening operations generally on a seasonal schedule, and loading and hauling operations on a year-round schedule. The site would operate for one shift each day with two to five employees per shift (up to five additional).

- b) No Impact:** The proposed Project would not conflict or obstruct a state or local plan for renewable energy resources or energy standards.

7. GEOLOGY/SOILS

Geology/Soils Environmental Checklist

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
disposal systems where sewers are not available for the disposal of waste water?				

GENERAL:

The geology of the Project area is composed of north-trending, fault-block ranges and intervening, drier basins. Basement rocks in the area consist of roughly 11 million-year-old Hartford Hill Rhyolite. Long Valley basin fill resulted from a variety of deposition environments including ancient lakes and associated deltas, alluvial fans, and piedmonts. Sedimentary deposits with the basin are interfingered sediments of the Hallelujah Formation that are roughly 9 to 4 million years old (Kelly and Secord 2011), and undifferentiated alluvial sediments shed from surrounding ranges and isolated highlands within the valley.

Basin-and-range topography characterizes the Central Basin and Range Ecoregion: wide desert valleys are bordered by parallel mountain ranges generally oriented north-south (Soulard, 2012).

The predominant soils types on the Project site are sandy loam, sandy clay loam, or gravelly sandy loam over mixed alluvium derived from granite, weathered or mixed. Soils are characterized as well drained.

DISCUSSION:

a.i) No Impact: According to the California Department of Conservation’s Earthquake Zones of Required Investigation, the Project parcels are not within an Earthquake Fault Zone. As such, the proposed Project would not be subject to fault rupture or any special development standards associated with the Alquist-Priolo Earthquake Fault Zoning Act.

a. ii) Less Than Significant Impact: The Project site could be susceptible to seismic ground shaking due to earthquakes. Much of the north-eastern part of the state is actively stretching apart, creating numerous faults, all capable of producing earthquakes. According to United States Geological Survey (USGS) Earthquake Catalog, there have been six minor (3.0-magnitude or lower) earthquakes within approximately 5 miles of the Project site between 1982 and 2022.

The proposed Project would not build permanent structures or residential housing that could subject humans to seismic hazards. The potential impacts from exposure to hazards associated with strong seismic ground shaking are therefore considered to be less than significant.

a.iii., iv., c) No Impact: According to the California Department of Conservation’s Earthquake Zones of Required Investigation, the Project site and surrounding area has not been evaluated for liquefaction or landslides.

According to USGS, “Liquefaction is a phenomenon where saturated sand and silt take on the characteristics of a liquid during the intense shaking of an earthquake. The highest hazard areas are concentrated in regions of man-made landfill, especially fill that was placed many decades ago in areas that were once submerged bay floor. Such areas along the Bay margins are found in San Francisco, Oakland and Alameda Island, as well as other places around San Francisco Bay.

Other potentially hazardous areas include larger stream channels, which produce the loose young soils that are particularly susceptible to liquefaction.” The Project site is not located in a region of man-made landfill or an in are that includes larger stream channels.

The proposed Project would not build permanent structures or residential housing that could subject humans to liquefaction or landslides. The potential impacts from exposure to hazards associated with these natural phenomena are therefore considered to be no impact.

- b) Less Than Significant Impact:** Proposed activities would include disturbance by grading and the use of heavy equipment. The relatively flat floor of the proposed pit along with the nature of the material would mitigate erosion concerns. The surface would be revegetated on a concurrent basis with activities commencing in the second year of operation to further reduce soil erosion.

Appropriate BMPs such as hay bales and silt fences would be installed around the stockpiles, if necessary, to prevent surface run-on and runoff. The operator would perform site erosion monitoring for a period of five years after the completion of mining.

Initial geologic surveys of the Project Area indicate that pozzolan materials are present at the surface for much of the area; therefore, the amount of salvageable growth medium would be minimal. Limited topsoil, selected subsoils, or other reject materials suitable as a growth medium would be salvaged from areas to be disturbed, stockpiled (with signs). The limited salvaged topsoil would be used in selected areas to enhance revegetation.

- d) No Impact:** The proposed Project does not involve the construction of any permanent structures and therefore, would not be susceptible to risks associated with expansive soils.
- e) No Impact:** The proposed Project does not propose installation or operation of a septic system or other onsite wastewater system.

8. GREEN HOUSE GAS EMISSIONS

Green House Gas Emissions Environmental Checklist

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

GENERAL:

As a result of a mining operation’s initial site clearing; the native vegetation ceases to collect carbon and release oxygen. Diesel-powered heavy equipment would be used for mining, and electricity would be used for processing and other plant operations. Trucking of pozzolan from the mining site to project sites

where the aggregate is to be used is also a source of greenhouse gas (GHG) emissions. These uses would result in GHG emissions, albeit an extremely small proportion of the state and worldwide production of GHGs.

DISCUSSION:

- a) **Less Than Significant Impact:** During mining, the proposed Project would produce GHG emissions generated from heavy equipment during excavation, haul trucks, worker trips, and use of a generator. The operation of the facility would benefit Lassen County and other surrounding counties with more accessibility to pozzolan which would otherwise obtain pozzolan from facilities farther away and would result in higher emissions per ton of material produced due to the increased emissions from miles traveled by truck or imported from foreign suppliers.
- b) **No Impact:** The Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHG. Lassen County's General Plan 2000 does not address GHG emissions and does not have a stand-alone Climate Action Plan but includes policies for energy resources within the County's General Plan Energy Element. The objective of the Energy Element is to promote energy efficiency and the reduction of energy waste. The Project does not conflict with or obstruct these goals or policies. Additionally, there are no established thresholds of significance for the Northeast Plateau Air Basin.

9. HAZARDS AND HAZARDOUS MATERIALS

Hazards and Hazardous Materials Environmental Checklist

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
airport, would the project result in a safety hazard for people residing or working in the project area?				
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

GENERAL:

The preparation of a Stormwater Pollution Prevention Plan (SWPPP) is required by federal and state regulation and is administered by the State Water Resources Control Board (SWRCB) through the Lahontan RWQCB. Spill prevention and response includes increasing employee awareness toward minimizing spills and the training to respond if spills occur. Each employee is directed to clean up spills as they occur and to report any spill of significant quantity. Facility containments, loading/unloading practices, good housekeeping measures, and maintenance schedules effectively prevent minor spills that may occur during day-to-day operations. The SWPPP would describe the BMPs for dealing with hazardous materials in more detail. A Spill Contingency Plan was provided by the applicant in Appendix D of the Mining Plan.

DISCUSSION:

a, b) Less Than Significant Impact: The mining operation would involve the transport, use, and storage and disposal of hazardous materials such as fuels, lubricants and hydraulic fluids for vehicles and equipment onsite. Dismantling of equipment could potentially pose a risk of accidental upset from the release of petroleum related products.

Any hazardous material uses would be required to comply with all applicable local, state, and federal standards associated with the handling and storage of hazardous materials. Best Management Practices (BMPs) include the use of secondary containment structures, designated areas for refueling, use of spill and overflow protection, employee training, preventative maintenance, and diverting/containing runoff from the fueling area with berms and drainage swales. Petroleum products would be stored in a double walled container or in a secondary containment area onsite.

The operation is required to have the necessary permits from Lassen County Environmental Health for storing hazardous materials. Operations would follow the applicable laws and regulations regarding hazardous material transport, as defined in §353 of the California Vehicle Code.

Hazardous sites or conditions resulting from operations would be marked by signs, fenced, or otherwise identified to alert the public in accordance with applicable federal and state laws and regulations. All solid wastes would be disposed of in a state, federal, or local designated site. Pursuant to 43 Code of Federal Regulations (CFR) 8365.1-l(b)(3), no sewage, petroleum products, or refuse would be dumped from any trailer or vehicle.

With the implementation of the above-mentioned project design features, the impact has been determined to be less than significant.

- c) **No Impact:** There are no existing or proposed schools within one-quarter mile of the proposed mine.
- d) **No Impact:** The California Envirostor database was queried for hazardous materials sites pursuant to Government Code §65962.5. Based on the results of an April 15, 2022 query, the Project is not located on or adjacent to a listed hazardous materials site. Approximately 3 miles to the southwest, there is a closed Hazardous Waste Facility; however, its proximity to the proposed site would not create a significant hazard to the public or the environment.
- e) **No Impact:** The proposed Project is not within 2 miles of a public airport or a public use airport.
- f) **No Impact:** The proposed Project is not within the vicinity of a private airstrip.
- g) **No Impact:** Lassen County and the City of Susanville has developed an Emergency Operations Plan, and updates this on a regular basis to comply with statewide emergency procedures. This plan outlines emergency procedures to be implemented but does not prescribe any site-specific emergency response plans or emergency evacuation plans for the Project site, and none is required. The proposed mine would not require development of a new emergency response plan or emergency evacuation plan.
- h) **Less Than Significant:** The proposed Project may result in an increased risk of fire due to mining equipment and associated processes. Vegetation would be removed from the mining areas prior to mineral extraction. Implementation of Fire Prevention and Control standards from Mine Safety and Health Administration (MSHA) would be required. The closest residences are approximately 2.6 miles south of the Project site on the west side of Hwy 395 and approximately 3 miles south of the Project site on the east side of Hwy 395. The Project would not expose people or structures to a significant risk or loss, injury or death involving wildland fires.

10. HYDROLOGY AND WATER QUALITY

Hydrology and Water Quality Environmental Checklist

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(i) result in substantial erosion or siltation on or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iv) impede or redirect flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

GENERAL:

According to the United States Fish and Wildlife (USFW) National Wetlands Inventory Mapper, there are two ravine habitats classified as R4SBA:

System Riverine (R): The Riverine System includes all wetlands and deepwater habitats contained within a channel, with two exceptions: (1) wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens, and (2) habitats with water containing ocean-derived salts of 0.5 ppt or greater. A channel is an open conduit either naturally or artificially created which periodically or continuously contains moving water, or which forms a connecting link between two bodies of standing water.

Subsystem Intermittent (4): This Subsystem includes channels that contain flowing water only part of the year. When the water is not flowing, it may remain in isolated pools or surface water may be absent.

Class Streambed (SB): Includes all wetlands contained within the Intermittent Subsystem of the Riverine System and all channels of the Estuarine System or of the Tidal Subsystem of the Riverine System that are completely dewatered at low tide.

Water Regime Temporary Flooded (A): Surface water is present for brief periods (from a few days to a few weeks) during the growing season, but the water table usually lies well below the ground surface for the most of the season.

The Project site is located in the Long Valley Groundwater Basin which is designated as a “very low priority basin” by DWR, signifying that it is not currently at risk for overdraft.

DISCUSSION:

- a) **Less Than Significant Impact:** The preparation of a SWPPP is required by federal and state regulation and is administered by the SWRCB through the Lahontan RWQCB. This plan has been prepared to comply with the terms of the National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Industrial Activities (NPDES No. CAS000001, 2014-0057-DWQ). The intent of the order is to protect water quality by controlling pollutants in stormwater runoff.

The SWPPP is designed to comply with Best Available Technology (BAT), Best Conventional Pollutant Control Technology (BCT), and BMPs to reduce or eliminate pollution from industrial facilities during storm events.

Implementation of the SWPPP would ensure that stormwater discharges from the Project site are managed in accordance with existing waste discharge requirements and water quality standards for stormwater discharges.

- b) **Less Than Significant Impact:** Drill-holes may be used to explore the depth and distribution of pozzolan materials ahead of the moving wall mining operations. All drill-holes and mining activities shall take place above the groundwater table. Drill-holes shall be plugged by placing drill cuttings or inorganic fill material into the total depth of the hole. In the unlikely event that groundwater is encountered during drilling, the drill-hole shall be cemented to at least 50 feet above the aquifer and shall require a 3-foot cement surface plug.

Water trucks would draw water from an industrial well leased to Geofortis and deliver to the Project area. At full production, it is expected that 15,000 gallons per day are required for dust control operations.

Groundwater level monitoring in Lassen County is performed by DWR Northern District on a semiannual basis, in March and October which includes the industrial well leased to Geofortis identified as 23N17E02N001M by DWR. The highest groundwater level measured was in March of 1997 with the water level being 21.8ft from the surface. The lowest groundwater level was recorded in April of 1980 and April of 2016 with the water level being 28.2 ft from the surface.

The most recent measurement in March 2022 showed the water level being 26.2ft from the surface.

Groundwater Levels for Well 398679N1200474W001

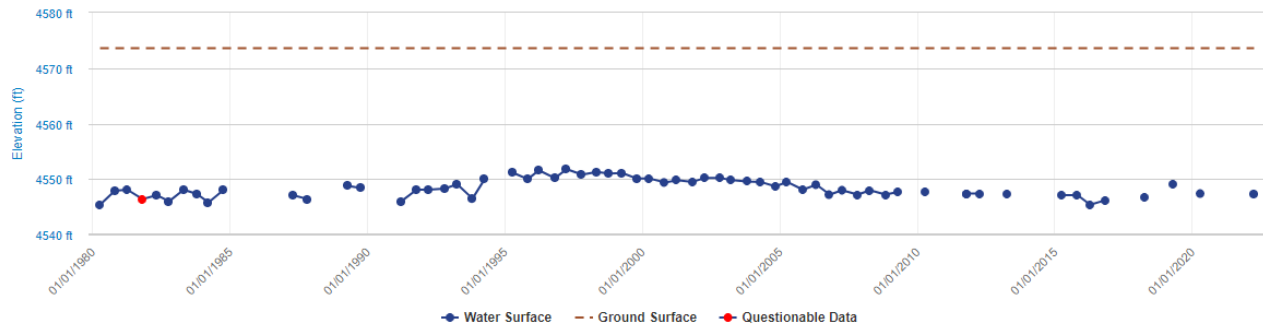


Figure 4: Industrial Well Name 23N17E02N001M (Site Code 398679N1200474W001) Groundwater Levels 1980-2022 (California Department of Water Resources 2022)

The Project would use approximately 11.2 acre-feet annually or a total of 537 acre-feet of groundwater if the mine were to use 15,000 gallons of water per day, 7 days per week from April to November for 48 years. The Project site is located in the Long Valley Groundwater Basin which is designated as a “very low priority basin” by the DWR, signifying that it is not currently at risk for overdraft. According to California’s Groundwater Bulletin 118, the perennial yield (maximum amount of groundwater that can be salvaged each year over the long term without depleting the groundwater reservoir) is estimated to be 1,283 acre-feet annually (WRD 1989).

A notice of informal consultation was sent to DWR and the Lahontan RWQCB. Neither agency commented on the Project. Both agencies will have another opportunity to comment when this initial study is circulated for public comment.

- c) **i-iv) Less Than Significant Impact:** A new access road is proposed on the west side of Phase I operations. A culvert and headwalls would be installed to direct stormwater under the access road. A Drainage Report was prepared by Summit Engineering Corporation for the US 395 Caltrans Encroachment Permit (Appendix D).

According to the report, the “*proposed storm facilities will encompass 2 headwalls (entrance and exit) incorporating three 60-foot long 48-inch CMP barrels which will concentrate and perpetuate the 10-year storm. The 100-year storm is anticipated to produce as much as 602.03 cubic feet per second (cfs) where the proposed storm structure will allow as much as 410 cfs without overtopping the road. During the 100-year event, it is anticipated that approximately 125.80 cfs (with 474.20 cfs through the culvert storm structure) will overtop the road and flow northerly along trapezoidal channels graded to 4 feet in bottom width with 3:1 slopes at a minimum depth of 3 feet. The channels will be lined with a minimum 36-inch thick blanket of class V riprap.*” The haul road will be completed in accordance with the California Department of

Transportation (Caltrans) and the American Association of State Highway and Transportation Officials (AASHTO).

The operator would implement BMPs to control erosion in accordance with a site-specific SWPPP. Erosion and sedimentation of surface waters would be controlled through the use of weed-free straw wattles and/or silt fencing along the boundary of the facility and along steep slopes. These BMPs are designed to minimize the erosion of materials on the site and the transport of sediment off of the site.

The Project area is not located within a 100-year flood zone per Federal Emergency Management Agency (FEMA) Map Panel No. 0635C2800D.

Geofortis Minerals submitted a Hydrology Study and Division Channel Design Parameters Report (Appendix D) that estimates stormwater flows carried by ephemeral streams that are known to be present on site and determine the design parameters for diversion channels.

A site visit was conducted on October 18, 2022 where personnel inspected the drainages and terrain in each subbasin. The USDA web soil survey operated by the Soil Conservation Service were also utilized to better understand existing soil conditions. Hypothetical storms with durations of 24-hours were applied to the east and west basins with the Hydrologic Modeling System (HEC-HMS) software.

Caltrans criteria require culverts to pass the 10-year recurrence interval storm. Since the mining operation will have an expected life greater than 10 years, the 25-year recurrence interval storm was used to size the diversion channels.

There are two subbasins (E1 and E2) on the east side of US 395 and three subbasins on the west side of 395 (W1, W2, W3). Along the southern boundary of the proposed open pit on the east side of US 395, a trapezoidal channel that is 5 feet wide with side wall slopes of 3:1 would be installed to carry the estimated 8.2 cfs until this stormwater reaches the eastern boundary of the proposed pit. The water in this channel will flow at a depth of 0.35 feet. As this channel combines with the flows from subbasin E1, channel will remain in the same configuration, but the depth of flow will increase to 1.28 feet to carry the estimated 69.7 cfs of the 25-year flow. This diversion channel ultimately discharges to the existing wash similar to existing conditions.

For the basins on the west side of US 395, the three subbasins (W1, W2 and W3) ultimately combine and are diverted around the pit. The combined 25-year flow is estimated at 144.1 cfs. This flow will be carried in a trapezoidal channel with a bottom width of 10 feet, side slopes of 3:1 and a flow depth of 1.84 feet. This water is carried on the west side of the pit and discharges into an existing wash in a similar location as the existing conditions. A smaller channel designed to carry 10 cfs is proposed at the southern edge of the pit to control any nuisance water that does not flow directly east. This trapezoidal channel has a bottom width of 5 feet, side slopes of 3:1 and an estimated flow depth of 0.41 feet.

With the construction of the above-mentioned design features, The Project would likely have a less than significant effect on the existing drainage pattern of the site area which could result

in substantial erosion or siltation on or off site, increase surface runoff which could result in flooding on- or offsite, create or contribute runoff water which could exceed the capacity of existing or planned stormwater drainage systems, impeding or redirecting flows.

- d) No Impact:** The Project site is not located within a flood hazard zone, tsunami, or seiche zone. The Project site would not be inundated by water from flooding, tsunami or seiche. There is no risk of release of pollutants due to project inundation.
- e) Less Than Significant:** The Porter-Cologne Water Quality Control Act established the provisions of water quality control within California. Additionally, the Act authorizes the NPDES, which established effluent limitations and water quality requirements for discharges to waters of the state. Lahontan RWQCB is the regulatory agency charged with administering the NPDES program for Lassen County. These activities include administering permits, performing water quality planning, and providing local enforcement for water quality violations. The SWPPP would outline BMPs that would reduce or eliminate pollution from industrial facilities during storm events. The Project would not conflict with or obstruct The Water Quality Control Plan for the Lahontan Region. As a condition of approval, the applicant would be required to obtain any permits required by the Lahontan RWQCB.

The Project is it located in an area with a sustainable groundwater management plan.

11. LAND USE AND PLANNING

Land Use and Planning Environmental Checklist

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

GENERAL:

The mining operation does not propose any activity within an established community. The Project would not conflict with land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect The Reclamation Plan has been developed to comply with the requirements of SMARA, to provide a description of how mining operations would be reclaimed after mining operations have ceased.

DISCUSSION:

- a) **No Impact:** There is no established community on or near the proposed site. The closest residences are approximately 2.6 miles south of the Project site on the west side of Hwy 395 and approximately 3 miles south of the Project site on the east side of Hwy 395.
- b) **No Impact:** The subject parcels are zoned A-1 which includes all the unincorporated territory of the county not indicated specifically to be used for precise districts of agriculture, residential, commercial, manufacturing, open space, institutional, conservation, timber production, floodplain or airport (Lassen County Code 18.16.010). Mining or processing of precious metal or mineral resources, including sand and gravel mining and hot plants is a use allowed by use permit for parcels zoned A-1.

The site has a land use designation of Extensive Agriculture (Lassen County General Plan, 2000) which accommodates natural resource-related production facilities, including but not limited to: mineral extraction and processing, including asphalt and similar plants.

The proposed mine site would not convert more than three acres of land to non-timberland uses, the maximum use allowed by right as stated in Lassen County Code §18.70.030(f).

PRC §12220(g) defines “forest land” as land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.

During the informal consultation process, CAL FIRE stated that, “juniper does not constitute “Timberland” and is therefore not subject to the same timberland conversion permitting.” Reclamation of the site would have to comply with SMARA (PRC, §2710-2796) which provides a comprehensive surface mining and reclamation policy with the regulation of surface mining operations to assure that adverse environmental impacts are minimized and mined lands are reclaimed to a usable condition.

12. MINERAL RESOURCES

Mineral Resources Environmental Checklist

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

GENERAL:

Initial Study #2021-006
Preliminary Determination
Applicant: Geofortis Minerals, LLC
March 30, 2023

The State Geologist as specified by SMARA (PRC §2710 et seq.), produces Mineral Land Classification (MLC) studies. To address mineral resource conservation, SMARA mandated a two-phase process called classification-designation. The State Geologist carries out classification and designation as a function of the State Mining and Geology Board. The classification studies evaluate the mineral resources and present this information in the form of Mineral Resource Zones (MRZ).

DISCUSSION:

a, b) Less Than Significant Impact: The proposed Project would only affect surface deposits and would result in the utilization, not loss, of known mineral resources. The continued use of the mineral resources extracted as part of the proposed Project would create local jobs and make available the raw materials for projects that would be of value to the region and residents of the State for approximately 50 years.

A Mineral Report was produced by the BLM which states “*The pozzolanic chemical reactivity is the property that gives the material from the Geofortis placer mining claims IRONCLOUD # 11 through 13, CAL MIN #121, CAL MIN #124 through 126, CAL MIN #131 and 132, CAL MIN #137, and CAL MIN #159 its distinct and special value. The material meets the ASTM C618 criteria for Class N natural pozzolan and can be used in the portland cement, mortar, ready mix concrete, and related industries. The deposit underlying the subject claims is more valuable than similar deposits that are not pozzolans and evidence indicates that the deposit will be able to enter the market at a price exceeding that of common-variety cement additives. For these reasons, the deposit underlying the claim group meets the standards set forth in McClarty v. Secretary of the Interior, 408 F.2d 907 (9th Cir.1969), and has therefore been determined to be uncommon variety.*”

Furthermore, the report also states that the operation should be processed and administered as a locatable mineral operation. A locatable mineral refers to mineral deposits that can be mined through the process of making a mining claim on public lands. The Mining Law of 1872, as amended, is the major Federal law governing locatable minerals.

According to the California Department of Conservation’s MLC interactive map, the proposed Project is not within a known mineral resource area or MRZ. The proposed reclamation activities would not preclude future mining at the site if it were determined to be viable, and the anticipated end land use would not prevent future mining. It is presumed that reclamation would occur because the minerals being extracted from the Project site either have been exhausted or are no longer economically feasible to remove at the time of reclamation.

13. NOISE

Noise Environmental Checklist

Would the project result in:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

GENERAL:

The Lassen County Noise Element identifies the County's approach to controlling environmental noise and limiting community exposure to excessive noise levels and provides mechanisms to mitigate existing noise conflicts, and to minimize future noise conflicts by the adoption of policies and implementation measures designed to achieve land use compatibility for proposed development. (Dudek, 2021)

The Lassen County Noise Ordinance defines limits for excessive noise and sets noise-level limits to protect noise-sensitive land uses. In general, noise levels within commercial and industrial areas are given a higher allowance, but noise from all sources is limited to no greater than 65 dBA CNEL at noise-sensitive land use receiver sites.

DISCUSSION:

a, b) Less Than Significant Impact: The proposed Project would operate using dozers to rip and push materials, and excavators mining on a moving highwall. An on-site, mobile crushing and

screening spread would crush material. It is expected that approximately 70 truckloads per day would move material off-site at full capacity.

The Project site is located in a rural setting and is surrounded by BLM-managed land and agriculture. The closest residences (2) are approximately 2.6 and 3 miles south of the Project location. Exposure of persons to or generation of noise or excessive groundborne vibration or groundborne noise levels would primarily be limited to the employees on site rather than the general public given the proposed Project location.

c, d) Less Than Significant Impact: The operation would be capable of processing materials 7 days a week. Haul trucks would move material on southbound Hwy 395 to an off-site mill located in Stead, Nevada for further processing 5 days a week.

It is reasonable to assume that the ambient conditions of the general vicinity are frequently interrupted by noise generated by vehicles on Hwy 395. While this Project would increase ambient noise levels, it is not expected to be a substantial increase.

e, f) No Impact: The Project site is not within an adopted airport land use plan or within 2 miles of an active public use airport or private airstrip. The proposed Project would not expose people working in the Project area to excessive aircraft noise levels.

14. POPULATION AND HOUSING

Population and Housing Environmental Checklist

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

GENERAL:

Intensification of land use beyond that allowed by the General Plan or zoning, if any, would be subject to county approvals and would require separate CEQA documentation.

Workers who would carry out proposed mining and reclamation activities would likely be residents of Lassen County or Washoe County, Nevada.

DISCUSSION:

- a) **Less Than Significant with Mitigation:** The proposed Project may, as an alternative to generator use, operate the crushing and screening spread with grid power stemming from a power line located approximately 0.5 miles north of the access road. PSRE would provide an on-site electrical transformer to service the operation.

The implementation of mitigation measure Population-1 would ensure that expansion of infrastructure (power transmission line) would not induce growth in the future.

The Project does not propose new homes or businesses and with the implementation of the reclamation plan, would remove and revegetate haul roads used during mining.

MITIGATION:

Mitigation Measure Population-1: Powerlines, including all poles and cables, shall be removed from the Project Area within one year after mining operations have ceased.

- b) **No Impact:** The Project would not displace any housing or people or require construction of replacement housing elsewhere.

15. PUBLIC SERVICES

Public Services Environmental Checklist

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Fire protection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Police protection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Schools?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Parks?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Other public facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

GENERAL:

The following public services are provided to this site:

Fire: CAL FIRE

Police: Lassen County Sheriff

Water: industrial well leased to Geofortis identified as 23N17E02N001M by DWR

Transit: Lassen County Transit Services does not provide bus services to the area

Sewer: There are no public sewerage services to the site
Power: Plumas-Sierra Rural Electric Cooperative (PSRE)

DISCUSSION:

a-e) Less Than Significant with Mitigation Incorporated: The proposed Project may result in an increased risk of fire due to mining equipment and associated processes including the possible construction of power poles/lines. Vegetation would be removed from the mining areas prior to mineral extraction. Implementation of Fire Prevention and Control standards from MSHA would be required. Furthermore, any person that owns, controls, operates, or maintains any electrical transmission or distribution line is responsible for maintaining vegetation clearance. It is the duty of the utility operator to remain in compliance with applicable state law including PRC §4292 through 4296.

While the mining and reclamation activities would not result in the development of housing, roads, or businesses, or otherwise increase population, the construction of a transmission line could cause growth inducing impacts once the site is closed and reclaimed. This could increase the demand for public services including fire protection, police protection, schools, parks, or other public facilities.

Implementation of Mitigation Measure Population-1 would reduce these impacts to a less than significant level.

MITIGATION:

Mitigation Measure Population-1: Powerlines, including all poles and cables, shall be removed from the Project area within one year after mining operations have ceased.

16. RECREATION

Recreation Environmental Checklist

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with established recreation uses of the area, including biking, equestrian and/or hiking trails	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

GENERAL:

The proposed Project is located in a rural, sparsely populated area and opportunities for interaction with the public would be limited. There are no neighborhoods, regional parks or other recreational facilities in the area.

DISCUSSION:

a-c) No Impact: The proposed Project would not cause an increase in population, and, therefore, would not generate an increase in demand for neighborhood or regional parks or other recreation facilities. The proposed Project site would not include structural enhancements or other means to facilitate recreation upon completion of reclamation.

Approximately 5 acres of the proposed Project are located on BLM-managed lands. According to the BLM's Final Environmental Assessment conducted pursuant to the National Environmental Policy Act, "no recreational access will be limited by the proposed action" (2021).

17. TRANSPORTATION/TRAFFIC

Transportation/Traffic Environmental Checklist

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

GENERAL:

Geofortis holds a TR-0120 Encroachment Permit (Permit No. 0295-6RM-0163) through the Caltrans at postmile 10.1 on US Hwy 395. The Encroachment Permit serves an existing access road to existing claims in the name of Interest Income Partners under Surface Mining Plan #95004. Geofortis would modify the Encroachment Permit to establish a new intersection on the east side of US Hwy 395. Geofortis would apply for a right-of-way for the access road through BLM land. This roadway would be on Caltrans right-of-way and BLM land. This intersection would service all three Phases of the Project. Refer to Appendix G for the US 395 Encroachment Permit Plans.

Deliveries to the Project are estimated to be up to 1 trip per day. Employee travel is initially estimated at approximately 15 roundtrips per day. Loading and hauling operations would occur on a year-long basis. Approximately 70 truckloads per day, on a 5 day per week schedule, would be

required to haul processed pozzolan materials at full capacity. Roadways would be maintained and reggraded as necessary.

DISCUSSION:

- a, c) Less Than Significant Impact:** The Lassen County General Plan 2000 Circulation Element considers contemporary issues facing the County in terms of transportation and general circulation.

Lassen County General Plan 2000 Circulation Element

CE-6 POLICY: The County shall continue to review and, when warranted, formulate improved standards for the necessary improvement and maintenance of roads serving new development, including standards for the incremental improvement or development of public roads.

CE-10 POLICY: In consideration of proposed projects which would generate a substantial number of large trucks carrying heavy loads, the County shall require special mitigation measures to ensure that those projects do not cause, or will adequately mitigate, significant deterioration of County roads.

Implementation Measure CE-C: Pursuant to impacts evaluated in an environmental impact report or other form of project review, the County may require mitigation measures which will ensure that project developers adequately and fairly compensate or participate with the County in the necessary upgrading and/or repair of the affected roads.

CE-12 POLICY: No public highway or roadway should be allowed to fall to or exist for a substantial amount of time at or below a Level of Service rating of “E” (i.e., road at or near capacity; reduced speeds; extremely difficult to maneuver; some stoppages).

The Lassen County General Plan 2000 Circulation Map identifies Hwy 395 as a “Interstate & Other Principal Arterials” and is considered to be part of the “Interregional Road System” and a “High Emphasis Route” from the Sierra County Line to State Route 36. “High Emphasis” routes are considered to be more critical to regional travel as they provide direct access between major urbanized areas.

During informal consultation, Caltrans stated that they do not anticipate the need to construct highway improvements for turn lanes or acceleration lanes based on the rough estimate of approximately 20 haul trucks per day (Appendix H). The proposed access to US-395 would need to be evaluated to confirm that it meets our design requirements and has sufficient sight distance, etc. A new access would require working with the Encroachment Permits Office to acquire a permit for construction within the State Right-of-Way. Furthermore, the comments that they had during the 2018 informal consultation remain the same. Those comments include:

- 1) After our previous meeting, the DPE recognized, correctly, that the encroachment permit application needs to come from the adjacent property owner. If McMurtry (Geofortis Minerals, LLC) is not the owner of the land, but still wants to apply for the Encroachment Permit as the mine operator, he will need to get an Agents Authorization Letter from the property owner. This is fairly common on larger project and not a big deal.

- 2) The reconstructed road connection shall conform to the Modified Type C Standard Detail
- 3) The encroachment permit application shall be received with a set of plans prepared and stamped by a California Registered Professional Engineer.
- 4) The road connection shall utilize the existing Access Opening with the Access Controlled Right-of-Way
- 5) Truck crossing signs will be required
- 6) A complete environmental document (CEQA) will be needed with the encroachment permit application package.
- 7) A meeting with CT EP and Mr. McMurtry's (Geofortis Minerals, LLC) engineer to discuss plan set requirements is highly recommended.

Egress(es) to the mining operation would be adequately fenced and gated to preclude access. Haulage traffic would occur on southbound US Hwy 395 to an off-site mill located in Stead, Nevada. Geofortis would apply for a right-of-way for the access road through BLM land. This roadway would be on Caltrans right-of-way and BLM land.

- b) Less Than Significant Impact:** The CEQA Guidelines §15064.3, subdivision (b) discusses criteria for analyzing transportation impacts and states *“Projects that decrease vehicle miles traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact.”*

Pozzolans are a solid material commonly used in concrete as a replacement or a supplement for Portland cement to improve performance, reduce cost, and reduce the carbon footprint of built structures. Currently, the most common source of pozzolan material in the US is fly ash produced from the combustion of coal at electric power plants.

Customers would include large national and international companies as well as local family businesses. Processing of the raw material by grinding it to a fine powder would take place at a Stead, Nevada facility. Shipping would be by truck and rail throughout Nevada and northern California.

The California DOT's 2022 list of approved fly ash sources contains 11 of its 25 sources of fly ash from foreign countries (Caltrans 2022). In contrast, all the approved natural pozzolan sources are US-based (Caltrans 2022). The production of natural pozzolans domestically could reduce reliance on foreign suppliers and make this product more readily available and reduce vehicle miles traveled in both northern California and Nevada. This impact would be less than significant for the above-mentioned reasons.

- d) Less Than Significant:** With 2-5 employees anticipated per shift (up to 5 additional), the proposed Project would not significantly increase the population needed to be evacuated. CAL FIRE has reviewed the Project proposal and did not note any adverse impact to emergency response or evacuation plans. A traffic flow route will be a condition of approval for each phase of the Project.

18. TRIBAL CULTURAL RESOURCES

Tribal Cultural Resources Environmental Checklist

a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
i.) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1 (k), or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii.) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

GENERAL:

Assembly Bill 52 (Chapter 532, Statutes 2014) required an update to Appendix G (Initial Study Checklist) of the CEQA Guidelines to include questions related to impacts to tribal cultural resources. Changes to Appendix G were approved by the Office of Administrative Law on September 27, 2016. Tribal Cultural Resources include sites, features, and places with cultural or sacred value to California Native American Tribes. The Washoe Tribe has contacted the County to request consultation on projects falling within their delineated ancestral lands. The subject Project is proposed within the ancestral lands of the Washoe Tribe.

Pursuant to California Assembly Bill 52 (AB 52), a letter to Director of the Washoe Tribal Historic Preservation Office was sent March 28, 2022 formally inviting the Washoe Tribe of Nevada and California to request consultation regarding the proposed mine. No response or request for consultation was received.

According to NEIC, the Project is located in an area considered to be highly sensitive for prehistoric, protohistoric, and/or historic cultural resources. Flats near streams, springs, and seeps are sensitive for archaeological sites. Indigenous populations used the local region for seasonal and/or permanent settlement, as well as for gathering of plants, roots, seeds, domestic materials, and hunting seasonal game.

DISCUSSION:

- a i-ii) Less Than Significant:** A Class III Cultural Resources Inventory Report for the Project was conducted in 2018 by Broadbent & Associates. No historic properties would be affected by the proposed Project.

Pursuant to §15064.5(f) of the CEQA Guidelines, if previously unidentified cultural resources or human remains are encountered during project implementation and/or during the reclamation phase, all work shall cease in the area of the find until a qualified archaeologist examines the site and materials.

If human remains are discovered, California Health and Safety Code §7050.5 requires you to protect the discovery and notify the county coroner, who would determine if the find is Native American. If the remains are recognized as Native American, the coroner shall then notify the NAHC. California PRC §5097.98 authorizes the NAHC to appoint a MLD who would make recommendations for the treatment of the discovery.

19. UTILITIES AND SERVICE SYSTEMS

Utilities and Service Systems Environmental Checklist

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Require or result in the relocation or the construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

GENERAL:

The SWPPP would identify all of the activities and conditions at the proposed site that could cause water pollution and details the steps the Project would take to prevent the discharge of any unpermitted pollution. Wastewater treatment, natural gas, and telecommunication facilities are not applicable to this Project. The Project would conform to all applicable federal, state and local solid waste regulations.

DISCUSSION:

- a) **Less Than Significant with Mitigation Incorporated:** The proposed Project would not require or result in the relocation or the construction of a new or expanded water, waste water treatment, natural gas or telecommunication facilities.

The preparation of a SWPPP is required by federal and state regulation and is administered by the SWRCB through the Lahontan RWQCB. This plan has been prepared to comply with the terms of the NPDES General Permit for Stormwater Discharges Associated with Industrial Activities (NPDES No. CAS000001, 2014-0057-DWQ). The intent of the order is to protect water quality by controlling pollutants in stormwater runoff.

As an alternative to generator use, the applicant may operate the crushing and screening spread with grid power stemming from a power line located approximately 0.5 miles north of the access road. PSRE would provide an on-site electrical transformer to service the operation. With the implementation of Mitigation Measure Population-1 this impact would be less than significant.

MITIGATION:

Mitigation Measure Population-1: Any new construction of powerlines, including all poles and cables, shall be removed from the Project area within one year after mining operations have ceased.

- b, c) **Less Than Significant:** The Project proposes the use of an industrial well leased to Geofortis identified as 23N17E02N001M by DWR. Water trucks would draw water from the well and deliver to the Project area. At full production, it is expected that 15,000 gallons per day are required for dust control operations.

The Project site is located in the Long Valley Groundwater Basin which is designated as a “very low priority basin” by DWR, signifying that it is not currently at risk for overdraft.

A notice of informal consultation was sent to DWR and the Lahontan RWQCB. Neither agency commented on the Project. Both agencies will have another opportunity to comment when this initial study is circulated for public comment.

- d) **Less Than Significant:** The operational phase of the proposed Project could result in the production of solid waste typical of light industrial use. Solid waste generated by the Project would be taken off site and disposed of appropriately. Portable restrooms would be provided and serviced weekly. Materials including scrap, trash, and unusable equipment would be removed on a daily or weekly basis and disposed of in accordance with federal and state regulations. Disposal of solid waste would not violate any state or local standards or otherwise impair the attainment of solid waste goals.

According to the California Department of Resources Recycling and Recovery’s Solid Waste Information System (SWIS), the closest, actively operational solid waste facility within Lassen County is the Herlong Transfer Station located at 742-500 Herlong

Landfill Road in Herlong, CA 96113 (currently permitted under Permit #18-AA-0024).
Said permit allows a maximum of 750 tons of throughput per year.

The Bass Hill Landfill, located at 469-700 Johnstonville Dump Road, off of U.S.
Hwy 395 in Johnstonville, receives waste from Herlong Transfer Station. According
to the SWIS, the landfill is currently permitted and has an estimated closure date of 2031.
Permit #18-AA-0009 states that there is no peak tonnage limit and that “the landfill can
handle any maximum waste that could be generated within the county without any
problems.”

- e) **No Impact:** The Project would conform to all applicable federal, state and local solid waste regulations. All solid wastes would be disposed of in a state, federal, or local designated site. Pursuant to 43 CFR 8365.1-l(b)(3), no sewage, petroleum products, or refuse would be dumped from any trailer or vehicle.

20. WILDFIRE

Wildfire Environmental Checklist

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or uncontrolled spread of a fire?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Require installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose people or structure to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

GENERAL:

As stated in the Lassen County General Plan 2000’s Safety Element, “the entire county is prone to fire, either man-made or natural. Location, accessibility, local climatic conditions, topography and vegetation type are among the factors associated with the intensity of a fire. Among the factors which can induce fire hazard potential to human safety and the environment is the degree to which fire hazard reduction measures are practiced in an area and, should a fire occur, the response time and effectiveness of the fire suppression activities.”

According to CAL FIRE's State Responsibility Area (SRA) Viewer, most of the proposed Project is located within a SRA. Approximately 5 acres of the Project site is within a Federal Responsibility Area (BLM, Carson City). SRAs are recognized by the Board of Forestry and Fire Protection as areas where CAL FIRE is the primary emergency response agency responsible for fire suppression and prevention. Furthermore, the area is classified as a "Moderate" Fire Hazard Severity Zone which is the least hazardous classification in an SRA.

DISCUSSION:

- a) **Less Than Significant:** The Safety Element, including a Multi-Jurisdictional, Multi-Hazard Mitigation Plan, of the Lassen County General Plan 2000 addresses wildfire hazards in Lassen County and has several policies to improve fire safety. The Safety Element discusses the importance of ingress and egress by roadways and recognizes the importance of PRC §4291 which are known as the State Responsible Area Fire Safe Regulations.

CAL FIRE has reviewed the Project proposal and did not note any adverse impacts to emergency response or evacuation plans. Furthermore, the BLM was sent a notice of informal consultation which was circulated on March 28, 2022. No comment was received. Said agency will also receive a copy of this initial study once it is circulated for public comment in order to express any concerns they may have.

- b, c) **Less Than Significant:** The proposed Project may result in an increased risk of fire due to mining equipment and associated processes. Vegetation would be removed from the mining areas prior to mineral extraction. Implementation of Fire Prevention and Control standards from MSHA would be required.

As an alternative to generator use, the applicant may operate the crushing and screening spread with grid power stemming from a power line located approximately 0.5 miles north of the access road. PSRE would provide an on-site electrical transformer to service the operation. The California Department of Forestry and Fire Protection (CALFIRE) has the authority to take action regarding enforcement of PRC §4292 through 4296 which discuss maintenance and clearance requirements for electrical transmission or distribution lines.

This impact is considered less than significant if compliance is maintained with the above-mentioned standards.

- d) **Less Than Significant:** The Project area is not in an area that is mapped with high landslide activity (USGS) and is not within a 100-year flood hazard area. The proposed Project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

21. MANDATORY FINDINGS OF SIGNIFICANCE

Mandatory Findings of Significance Environmental Checklist

Does the project have:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number, or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

DISCUSSION:

- a, c) Less Than Significant with Mitigation Incorporated:** As discussed in Sections 1 through 20, development of the proposed Project would comply with all local, state, and federal laws governing general welfare and environmental protection. Project implementation during construction and operation could result in potentially adverse impacts to Aesthetics, Air Quality, Biological Resources, Cultural Resources, Noise, and Utilities and Service Systems.

Each of those impacts would be mitigated to levels that are less than significant with mitigation incorporated as outlined in each section above and compliance with existing federal, state, and local regulations.

- b) Less Than Significant:** All of the proposed project’s impacts, including operational impacts, would be reduced to a less than significant level with implementation of the mitigation measures identified in this Initial Study and compliance with existing federal, state, and local regulations. There would be no loss of timber resources or loss of availability of a mineral resource of value to the state, region, or locally, so there would be no cumulative effect. No impacts on services or utility systems would occur as a result of project implementation that could combine with cumulative effects elsewhere.

Cumulative impacts may occur from wildland fires and grazing that occur in or in the surrounding vicinity of the project area. Under appropriate management, these species can be controlled at reasonable tolerances based on the designated uses of the land and this potential can be reduced through employee education. Highly disturbed sites will continue to require higher levels of invasive and noxious species management due to increased chances for introduction as well as more instances of disturbed soil. The size of the Proposed Action is limited when compared to the wider area and the Reclamation Plan will mitigate impacts.

Although some limited off-road travel occurs in the area, access and roadway improvements may increase traffic to the area and could increase the potential for direct and indirect effects on migratory birds, as well as the degradation of potential habitat, particularly in closed areas or non-designated routes. Wildlife species displacement would be very limited as only 4.9 acres of low-quality habitat would be disturbed within the project area. In addition to mining activities, other types of recreation may increase including target shooting, hiking, and casual OHV recreation. Any increase in human activities in the project area would increase the potential for impacts to migratory birds through intentional or unintentional killing, degradation of habitat, spread of weeds, and increase in the risks of wildfires, vandalism, trash dumping, and poaching. Under current conditions, effects associated with the proposed action would occur in a small portion of the overall habitat available for migratory birds and State of California and BLM land use restrictions should reduce or mitigate potential cumulative effects to species associated with the action.

Increase mining and ground disturbance activities in the area has the potential to impact paleontological resources. Information developed during the Proposed Action would provide additional data to increase protection of this resource during subsequent phases.

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Preliminary Determination
Applicant: Geofortis Minerals, LLC
March 30, 2023

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