

## 6. ALTERNATIVES ANALYSIS

### 6.1 INTRODUCTION

The Alternatives Analysis chapter of the EIR includes consideration and discussion of a range of reasonable alternatives to the proposed project, as required pursuant to CEQA Guidelines Section 15126.6. Generally, the chapter includes discussions of the following: the purpose of an alternatives analysis; alternatives considered but dismissed; a reasonable range of project alternatives and their associated impacts in comparison to the proposed project's impacts; and the environmentally superior alternative.

### 6.2 PURPOSE OF ALTERNATIVES

The primary intent of the alternatives evaluation in an EIR, as stated in Section 15126.6(a) of the CEQA Guidelines, is to “[...] describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives.” In the context of CEQA Guidelines Section 21061.1, “feasible” is defined as:

...capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors.

Section 15126.6(f) of CEQA Guidelines states, “The range of alternatives required in an EIR is governed by a “rule of reason” that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice.” Section 15126.6(f) of CEQA Guidelines further states:

The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determined could feasibly attain most of the basic objectives of the project.

In addition, an EIR is not required to analyze alternatives when the effects of the alternative “cannot be reasonably ascertained and whose implementation is remote and speculative.”

The CEQA Guidelines provide the following guidance for discussing alternatives to a proposed project:

- An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives (CEQA Guidelines Section 15126.6[a]).
- Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable



of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly (CEQA Guidelines Section 15126.6[b]).

- The EIR should briefly describe the rationale for selecting the alternatives to be discussed. The EIR should also identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency’s determination [...] Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts (CEQA Guidelines Section 15126.6[c]).
- The EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. A matrix displaying the major characteristics and significant environmental effects of each alternative may be used to summarize the comparison (CEQA Guidelines Section 15126.6[d]).
- If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed (CEQA Guidelines Section 15126.6[d]).
- The specific alternative of “no project” shall also be evaluated along with its impact. The purpose of describing and analyzing a no project alternative is to allow decision-makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project. The no project alternative analysis is not the baseline for determining whether the proposed project’s environmental impacts may be significant, unless it is identical to the existing environmental setting analysis which does establish that baseline (CEQA Guidelines Section 15126.6[e][1]).
- If the environmentally superior alternative is the “no project” alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives (CEQA Guidelines Section 15126.6[e][2]).

### **Project Objectives**

Based on the above, reasonable alternatives to the project must be capable of feasibly attaining most of the basic objectives of the project. The proposed project is being pursued with the following objectives:

1. Construct a commercially viable, financeable, major underground gold mine operation that will produce 1,000 tons per day (365,000 tons per year) of gold mineralization.
2. Locate the project on property that Rise Grass Valley, Inc. owns that provides an existing access to the underground workings.
3. Utilize existing underground access points to limit new aboveground and underground surface disturbance.
4. Locate the facilities necessary to support dewatering, mining, and processing on land historically disturbed and zoned for similar industrial type uses.
5. Locate the majority of project facilities within a large property holding to provide buffer areas and minimize the potential for adverse environmental effects on neighboring properties.
6. Provide property owners along East Bennett Road a reliable and clean potable water source from the NID.
7. Provide jobs that provide a fair living wage for educated and skilled workers.



8. Increase the usable land area at the Centennial Industrial Site to allow its future use as industrial land.
9. Increase the usable land area at the Brunswick Industrial Site to allow its future use as industrial land.
10. Minimize impacts to wetlands, vernal pools, and other special-status species habitat located on the Brunswick and Centennial Industrial sites and, to the extent feasible, mitigate any such impacts identified.

### **Impacts Identified in the EIR**

In addition to attaining the majority of project objectives, reasonable alternatives to the project must be capable of reducing the magnitude of, or avoiding, identified significant environmental impacts of the proposed project. The significance level of impacts identified in the EIR are presented below.

### **Less Than Significant or No Impact**

As discussed in each respective section of this EIR, the proposed project would result in no impact or a less-than-significant impact related to the following specific topics associated with the resource area indicated, and mitigation would not be required. Note that subsequent sections of this analysis identify topics in most of these resource categories where there will be significant impacts and mitigation has been provided.

- ***Aesthetics.*** The EIR determined that a less-than-significant impact would occur related to substantial adverse effects on scenic vistas.
- ***Agriculture and Forestry Resources.*** The EIR determined that no impact would occur related to conversion of Farmland and conflicts with existing zoning for agricultural use and Williamson Act contracts. The EIR also determined that the proposed project would have a less-than-significant impact concerning conflicting with existing zoning for forest land, or resulting in loss of forest land. In addition, all cumulative impacts were determined to be less than significant.
- ***Air Quality, Greenhouse Gas Emissions, and Energy.*** The EIR determined that a less-than-significant impact would occur related resulting in emissions (such as those leading to odors) adversely affecting a substantial number of people. The EIR also determined that a less-than-significant impact would occur related to inefficient or wasteful use of energy and conflicts with a state or local plan for renewable energy or energy efficiency. In addition, with the exception of greenhouse gas emissions, all cumulative impacts were determined to be less than significant or less than cumulatively considerable.
- ***Biological Resources.*** The EIR determined that impacts related to interfering substantially with the movement of native resident or migratory wildlife, and conflicts with local policies or ordinances protecting biological resources would be less than significant.
- ***Cultural and Tribal Cultural Resources.*** The EIR determined that impacts related to disturbing human remains would be less than significant. In addition, all cumulative impacts were determined to be less than significant.
- ***Geology, Soils, and Mineral Resources.*** The EIR determined that impacts related to directly or indirectly destroying a unique paleontological resource or unique geologic



feature, and loss of availability of mineral resources would be less than significant. In addition, cumulative impacts were determined to be less than significant.

- **Hazards and Hazardous Materials.** The EIR determined that the proposed project would result in a less-than-significant impact related to being located within an airport land use plan and creating a safety hazard or excessive noise for people residing or working in the project area. The EIR also determined that the proposed project would not result in a significant impact related to creating a significant hazard through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment related to the Centennial Industrial Site, given the post-remediation baseline condition.
- **Hydrology and Water Quality.** The EIR determined that the proposed project would result in a less-than-significant impact related to conflicting with or obstructing implementation of a water quality control plan or sustainable groundwater management plan. In addition, cumulative impacts were determined to be less than significant.
- **Land Use and Population and Housing.** The EIR determined that the proposed project would result in a less-than-significant impact for all issues related to land use and population and housing.
- **Noise and Vibration.** The EIR determined that a less-than-significant impact would occur related to generation of excessive groundborne noise levels. A less-than-significant impact would also occur related to exposing people residing or working in the project area to excessive aircraft noise. In addition, cumulative impacts were determined to be less than cumulatively considerable.
- **Public Services and Utilities.** The EIR determined that all impacts related to public services and utilities (e.g., fire, law enforcement, schools, parks, water, sewer, solid waste), including cumulative impacts, would be less than significant. As discussed in the EIR, for public services impacts, the analysis appropriately focuses on an evaluation of whether the project's demand upon service providers would generate the need to build new facilities or expand existing facilities, the construction of which could cause environmental impacts.
- **Transportation and Circulation.** The EIR determined that impacts related to the following categories would be less than significant: study roadway segments and intersection queues under Existing Plus Approved Projects (EPAP) Plus Project conditions; transit, bicycle, and pedestrian facilities; vehicle miles traveled; and emergency access. Under Cumulative Plus Project conditions, a less-than-cumulatively considerable impact would occur related to study roadway segments.
- **Wildfire.** The EIR determined that the proposed project would result in a less-than-significant impact related to substantially impairing an adopted emergency response plan or emergency evacuation plan, installation or maintenance of wildfire-associated infrastructure which could exacerbate wildfire hazard, and exposing 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. In addition, cumulative impacts were determined to be less than significant.



As stated above, reasonable alternatives to the project must be capable of reducing the magnitude of, or avoiding, identified significant environmental impacts of the proposed project. Because the proposed project would not result in significant impacts related to the resource areas listed above, a comparison of potential impacts associated with the aforementioned resource areas as a result of project alternatives versus the proposed project is not provided in this chapter. Rather, this chapter focuses on those resource areas and specific impacts listed below that have been identified for the proposed project as requiring mitigation to reduce significant impacts to less than significant, or have been found to remain significant and unavoidable.

### **Less Than Significant with Mitigation**

Environmental impacts (including cumulative impacts) of the proposed project that have been identified as requiring mitigation measures to ensure that the level of significance is ultimately less than significant include the following:

- **Air Quality and Greenhouse Gas Emissions.** The EIR determined that implementation of the proposed project could result in a conflict with implementation of the applicable air quality plan through generation of construction and operational criteria pollutant emissions that would exceed the Northern Sierra Air Quality Management District's (NSAQMD) applicable thresholds. In addition, the project could result in emissions of asbestos dust related to on-site ground disturbing activities having the potential to expose receptors to substantial concentrations of asbestos. With respect to GHG, the proposed project could result in a significant greenhouse gas (GHG) impact during the construction period. However, the EIR requires mitigation in order to ensure that the aforementioned impacts are reduced to less-than-significant levels.
- **Biological Resources.** The EIR determined that implementation of the proposed project could result in potential significant adverse effects to special-status plants at both the Centennial and Brunswick Industrial Sites; foothill yellow-legged frog, western pond turtle, California red-legged frog, California black rail, coast horned lizard, special-status bats, and non-special status raptors and migratory birds at both Sites; and aquatic resources on both Sites that are subject to regulatory agency jurisdiction. However, the EIR requires mitigation in order to ensure that impacts related to the aforementioned biological resources would be reduced to less-than-significant levels.
- **Cultural Resources.** The EIR determined that, at both Sites, implementation of the proposed project could result in a significant impact to unknown archaeological resources and Tribal Cultural Resources, as defined in Public Resources Code, Section 21074. In addition, the EIR determined that the project would have a significant adverse effect on the underground workings of the Idaho-Maryland Mine. However, the EIR requires mitigation in order to ensure that impacts related to cultural resources would be less than significant.
- **Geology and Soils/Mineral Resources.** The EIR determined that implementation of the proposed project could result in significant impacts related to the following geology and soils issues at both Sites: soil erosion related to stockpiles, engineered fill slopes, and general site disturbance during construction; presence of undocumented fill; and thin lenses of expansive soils. In addition, within off-site areas at the industrial complex south of Idaho Maryland Road and north of Whispering Pines Lane, near surface geotechnical



features need to be closed so as to ensure that collapse would not result during dewatering of the mine.

Significant geology issues specific to the Centennial Industrial Site include the safety concern related to the presence of the South Idaho Shaft.

Significant geology issues specific to the Brunswick Industrial Site include potential seismic hazards at the Brunswick Industrial Site; slope stability associated with temporary steep cut slopes at the new service shaft collar; and an unstable portion of the clay-lined pond dam.

The EIR requires mitigation in order to ensure that the aforementioned impacts are reduced to less-than-significant levels.

- **Hazards and Hazardous Materials.** Potentially significant hazards identified on the Brunswick Industrial Site include elevated arsenic in the southeastern paved area, potential residual petroleum contamination in a few locations, and presence of groundwater monitoring wells of unknown status. However, the EIR requires mitigation in order to ensure that the aforementioned impacts are reduced to less-than-significant levels. The EIR also determined that the proposed project could have a significant impact related to creating a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, specifically, the transport, underground storage, and use of explosives at the Brunswick Industrial Site. Implementation of the mitigation measures required in the EIR would reduce the impact to a less-than-significant level.
- **Hydrology and Water Quality.** The EIR determined that implementation of the proposed project could result in potential construction and operational impacts related to water quality (e.g., Centennial Industrial Site: engineered fill pad construction; Brunswick Industrial Site: operations within industrial area, underground placement of Cement Paste Backfill, use of clay-lined pond for water treatment process purposes, engineered fill pad construction, treated water discharge in South Fork Wolf Creek). In addition, the proposed project would result in substantial reduction in groundwater supplies; substantial alteration of drainage patterns;<sup>1</sup> and for the Centennial Industrial Site, risk release of pollutants in

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<sup>1</sup> It is important to note that the significant impact determination related to substantial alteration of drainage patterns is done so out of an abundance of caution. As noted in the Hydrology and Water Quality chapter of this EIR:

EMKO concludes that the project would not significantly alter the drainage patterns of the sites in a manner which would result in substantial erosion or siltation on- or off-site, nor substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site, nor create or contribute to runoff water which would exceed the capacity of existing stormwater drainage systems, nor impede or redirect flood flows. West Yost's independent peer review concurs with this conclusion. The combined flows from the treated water discharge and existing base flow in South Fork Wolf Creek would be below the levels that could potentially result in erosion or sediment transport. Peak storm flows at both the Centennial and Brunswick Industrial Sites would be reduced to levels less than current peak storm flows due to the detention basins that would be constructed below the engineered fill areas. The reduction in peak storm flows would reduce erosion and sedimentation within South Fork Wolf Creek and enhance the capacity of storm drain systems under the City of Grass Valley. Nevertheless, the drainage analysis prepared for the Centennial and Brunswick Industrial Sites is preliminary and a final drainage analysis will need to be prepared as part of the improvement plan submittal. Thus, it is conservatively concluded that the proposed project could result in a **significant** impact related to substantially altering the drainage pattern of the site or area, or increasing the rate or amount of surface runoff.



flood hazard area. However, the EIR requires mitigation in order to ensure that impacts related to hydrology and water quality are reduced to less-than-significant levels.

- **Noise.** The EIR determined that the project could result in a substantial permanent increase in ambient noise levels in the vicinity of the project due to haul truck traffic should Jake brakes be used. In addition, the EIR conservatively concludes that the combined operational noise sources at the Brunswick Industrial Site could result in a significant noise impact. With respect to vibration, the EIR determined that while blasting is not projected to exceed applicable thresholds, a ground vibration monitoring program should be implemented to determine the actual levels of ground vibration at commencement of mining, and if necessary, implement additional protective measures. The EIR requires mitigation in order to ensure that the aforementioned impacts are reduced to a less-than-significant level.
- **Transportation and Circulation.** The EIR determined that implementation of the proposed project would result in a significant impact related to construction traffic, truck turn movements at the Millsite Road/E. Bennett Road project egress (Brunswick Industrial Site), and pavement condition at several locations. However, the EIR requires mitigation in order to ensure that the aforementioned impacts are reduced to a less-than-significant level.
- **Wildfire.** The EIR determined that implementation of the proposed project would result in a significant impact related to exacerbating wildfire hazards. The EIR requires mitigation in order to ensure that the aforementioned impact is reduced to a less-than-significant level.

### Significant and Unavoidable

The EIR has determined that the following project impacts would remain significant and unavoidable, even after implementation of the feasible mitigation measures set forth in this EIR:

- **Aesthetics.** The EIR determined that the proposed project would result in a significant impact related to substantially degrading the visual character or quality of the site and its surroundings. Even after mitigation, the impact would remain significant and unavoidable. The EIR also determined that the project's incremental contribution to the significant cumulative impact related to substantial degradation of visual character or quality would be cumulatively considerable and significant and unavoidable.
- **Noise.** The EIR determined that during construction activities, the project could result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity (i.e., residents along East Bennett Road during construction of the potable water line). Even with implementation of mitigation, the impact would remain significant and unavoidable.
- **Transportation and Circulation.** The EIR determined that the proposed project would result in a significant impact at three study intersections under the EPAP Plus Project scenarios, one of which would be significant and unavoidable even after mitigation (Brunswick Road/SR 174). The EIR also determined that the proposed project would have a cumulatively considerable incremental contribution to two intersections under both Cumulative Plus Project scenarios, one of which would be significant and unavoidable



even after mitigation (Brunswick Road/SR 174). In addition, the project's incremental traffic would cause a significant impact at one intersection queue during both Cumulative Plus Project scenarios (Brunswick Road/Sutton Way). Mitigation measures are identified and required for the aforementioned cumulative impacts, but it cannot be guaranteed that the measures would reduce the incremental impacts to a less than cumulatively considerable level.

### **6.3 SELECTION OF ALTERNATIVES**

The requirement that an EIR evaluate alternatives to the proposed project or alternatives to the location of the proposed project is a broad one; the primary intent of the alternatives analysis is to disclose other ways that the objectives of the project could be attained, while reducing the magnitude of, or avoiding, one or more of the significant environmental impacts of the proposed project. Alternatives that are included and evaluated in the EIR must be feasible alternatives. However, the CEQA Guidelines require the EIR to "set forth only those alternatives necessary to permit a reasoned choice." As stated in Section 15126.6(a), an EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. The CEQA Guidelines provide a definition for "a range of reasonable alternatives" and thus limit the number and type of alternatives that may need to be evaluated in a given EIR. According to the CEQA Guidelines Section 15126.6(f):

The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determined could feasibly attain most of the basic objectives of the project.

First and foremost, alternatives in an EIR must be feasible. In the context of CEQA Guidelines Section 21061.1, "feasible" is defined as:

...capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors.

Finally, an EIR is not required to analyze alternatives when the effects of the alternative "cannot be reasonably ascertained and whose implementation is remote and speculative."

#### **Alternatives Considered But Dismissed From Further Analysis**

Consistent with CEQA, primary consideration was given to alternatives that could reduce significant impacts, while still meeting most of the basic project objectives.

As stated in Guidelines Section 15126.6(c), among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are:

- (i) failure to meet most of the basic project objectives,
- (ii) infeasibility, or
- (iii) inability to avoid significant environmental impacts.

Regarding item (ii), infeasibility, among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context),



and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent). No one of these factors establishes a fixed limit on the scope of reasonable alternatives.

Five potential alternatives were considered but dismissed from detailed analysis in this EIR. The reason(s) for dismissal, within the context of the three above-outlined permissible reasons, are provided below.

### **Off-Site Alternative**

According to CEQA Guidelines Section 15126.6(f)(2), regarding Alternative Locations, “*If the lead agency concludes that no feasible alternative locations exist, it must disclose the reasons for this conclusion, and should include the reasons in the EIR. For example, in some cases there may be no feasible alternative locations for a geothermal plant or mining project which must be in close proximity to natural resources at a given location*” (emphasis added). Based on this language, the State recognizes that there are certain instances where a project is directly tied to a certain project location due to the presence of resources on which the project depends. Such is the case for the proposed project.

As discussed in Chapter 4.6, Geology, Soils, Mineral Resources, the majority of the proposed mining areas, including the Brunswick Industrial Site, are located within MRZ 2, with some outlying areas located within MRZ 3. According to the State, MRZ 2 are those “Areas of Identified Mineral Resource Significance.” MRZ 2 is divided into two subcategories; the relevant category for the project area is -2b.

As defined by the State, MRZ-2b are areas underlain by mineral deposits where geologic information indicates that significant inferred resources are present. Areas classified MRZ-2b contain discovered mineral deposits that are either inferred reserves as determined by limited sample analysis, exposure, and past mining history or are deposits that presently are sub-economic. Further exploration work and/or changes in technology or economics could result in upgrading areas classified MRZ-2b to MRZ-2a.

According to Nevada County Land Use and Development Code, Sec. L-II 4.3.11, *Significant Mineral Areas* are “Areas where information indicates that significant mineral deposits are likely present based on State Division of Mines and Geology’s Nevada County Mineral Classification Report Maps, referred to as Mineral Resource Zones - 2 (MRZ-2).”

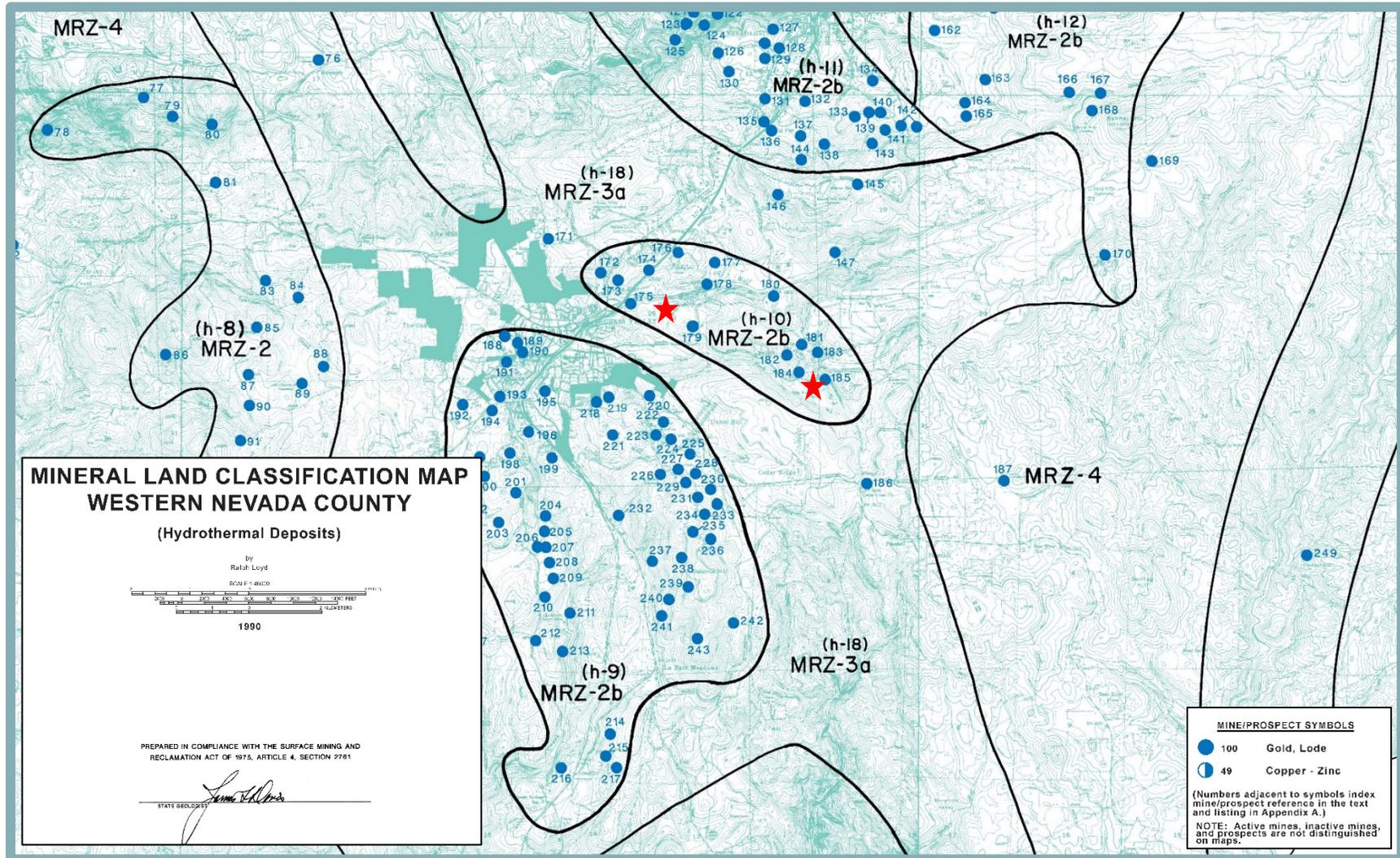
The *Mineral Land Classification of Nevada County, California*<sup>2</sup> identifies the mineral deposits in the project area as superscript ‘h’ for deposits formed by hydrothermal processes. The majority of the proposed mining areas are within MRZ-2b and have an accompanying superscript reference number of 10, which is used to identify and reference specific MRZ areas discussed in the report and displayed on the maps. For example, the Grass Valley Northeast Area is identified as MRZ-2b<sup>(h-10)</sup> – the tenth area described in the text for deposits formed by hydrothermal processes. MRZ-2b<sup>(h-10)</sup> is described as follows (and shown in Figure 6-1):

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<sup>2</sup> California Department of Conservation, Division of Mines and Geology (Ralph Loyd and John Clinkenbeard). *Mineral Land Classification of Nevada County, California. Special Report 164*. 1990.



**Figure 6-1  
 Mineral Resource Zones**



★ = Approximate project site locations.



Grass Valley Northeast Area (lode gold): This area encompasses a complex system of cavity-filling quartz veins that occupy a network of faults and fissures situated between the Grass Valley and Weimar fault zones (Plate 1a). Historic mines in this area include the Idaho - Maryland mines (Locality Nos. 178 and 179, Plate 3a). Although many veins have been mined to great depth, significant amounts of gold are likely to exist at yet deeper levels. Also, significant gold resources are likely to exist along some sections of the vein system which were previously uneconomic or never explored. The geology, ore deposits, selected mines and the mining history of the Grass Valley district have been best described in detail by Johnston (1940) and summarized in Clark (1970).

In addition to having known gold resources, the Brunswick Industrial Site contains existing mine shaft infrastructure and access at the Brunswick Shaft, and substantial underground tunnelling already exists. The presence of said mine infrastructure will minimize the need for construction of above-ground and underground mining infrastructure, which would be required at an alternative location where none is currently present. As a result of these factors, feasible alternative locations to the overall project site do not exist. Therefore, this alternative is rejected from further consideration.

### **No Project (Alternative Use)**

CEQA Guidelines Section 15126.6[e] states in part that:

“If disapproval of the project under consideration would result in predictable actions by others, such as the proposal of some other project, this ‘no project’ consequence should be discussed. In certain instances, the no project alternative means ‘no build,’ wherein the existing environmental setting is maintained. However, where failure to proceed with the project would not result in preservation of existing environmental conditions, the analysis should identify the practical result of the project’s non-approval and not create and analyze a set of artificial assumptions that would be required to preserve the existing physical environment.” (*Id.*, subd. [e][3][B]).

A project proponent could choose to develop the Brunswick Industrial Site consistent with the existing zoning should the Idaho-Maryland Mine application not be approved. Much of the Brunswick Site was utilized as a sawmill after the mine closure in the late 1950s, and the sawmill use ceased in the early 2000’s. As demonstrated below, development of the Brunswick Industrial Site with industrial uses, consistent with the current M1-SP zoning, could reasonably be expected to result in above-ground uses that are more intensive in certain respects than the proposed project.

Nevada County ordinance 1853, adopted by the County and effective February 1994, describes the current M1-SP zoning for the Brunswick Industrial Site. Presuming that the Brunswick Industrial Site was developed in accordance with the current zoning and the “Nevada County Business and Industrial Center” contemplated under ordinance 1853 was constructed the following activities would take place on-site.

Business Park	54,000 ft <sup>2</sup> of office and professional
Service Business Light Manufacturing	242,000 ft <sup>2</sup> of service business and light manufacturing
Industrial	238,000 ft <sup>2</sup> of industrial buildings
<b>Total</b>	<b>534,000 ft<sup>2</sup> of buildings</b>



A large amount of buildings, up to approximately 534,000 ft<sup>2</sup>, would be constructed on the site under this alternative and the site would be a major employer.

### Business Park

A Business Park would be located on the northern portion of the property, generally in the area east of the pond proposed as the process plant location for the proposed project. The Business Park would be a total size of 5.4 acres, pursuant to Ordinance 1853, and accessed from E. Bennett Street. Primary uses in this area are intended to include office administration and research. In addition, the Business Park would include sales displays and meeting rooms that can host luncheons, dinner events, and lectures. Secondary uses include: incidental light manufacturing for products produced on-site, i.e.; laboratories, service and repair, and research facilities.

Building intensity of 10,000 ft<sup>2</sup> per acre would allow 54,000 ft<sup>2</sup> of buildings.

#### *Examples of Permitted Uses:*

- Office and Professional
- Administrative and Research
- Employment Center Support:
  - Restaurants
  - Fitness Center
  - Automatic Branch Bank
  - Daycare Facilities
- Sales Office / Showroom (Relative to products produced on site)
- Conference Facilities (Related to service, training, and lectures incidental to activities conducted on site)
- Other similar type uses

### Service Business Light Manufacturing

A Service Business Light Manufacturing area would be located on the center portion of the property, generally in the area southeast of the pond proposed as the office location for the IMM Project. The Service Business Light Manufacturing area would be a total size of 18.6 acres, pursuant to Ordinance 1853. Primary uses in this area would include service maintenance and repair, manufacturing and processing, warehousing and distribution facilities. Secondary uses include office, professional, and conference facilities.

Building intensity of 13,000 ft<sup>2</sup> per acre would allow 242,000 ft<sup>2</sup> of buildings, including large buildings requiring up to 60,000 ft<sup>2</sup>.

#### *Examples of Permitted Uses:*

- Food products
- Chemical laboratories
- Dry cleaning
- Metal fabricators
- Wholesale stores and showrooms
- Service contractors; including general, plumbing, janitorial, roofers, pool installers, etc.



- Service maintenance and repair: including parts distribution and repairs, small service shops, automotive repairs, electrical appliance repairs, business machinery repairs, upholstery and etc.
- Other similar type uses.

### Industrial

An Industrial area would be located on the south portion and extending to the border of the property, generally in the area proposed as the engineered fill area for the IMM Project. The Industrial area would be a total size of 18.3 acres, pursuant to Ordinance 1853. Primary uses in this area would include uses that are site and labor intensive with minimal customer activity.

Building intensity is not specified. Using 13,000 ft<sup>2</sup> per acre would allow 238,000 ft<sup>2</sup> of industrial buildings.

### *Examples of Permitted Uses:*

- Moving and Storage Facilities
- RV Repair and Storage Lots
- Well Drilling, Contractors Equipment and Storage Yards
- Large Equipment Storage and Repair
- Auto Dismantling Yards
- Milling and Planing Facilities
- Lumber Yards
- Truss Manufacturing Yards
- Large Truck Repair and Service
- Large Wholesaling and Distribution Facilities
- Recycling Center
- “Green Tech” Recyclers

As shown in the above list of permitted uses for the existing property zoning, intense uses such as Auto Dismantling Yards, Wholesaling and Distribution Facilities are already permitted without the need for a discretionary County permit. As such, under existing zoning, uses are allowed by right that potentially could cause substantial noise, traffic, aesthetic and air quality impacts without the need for further CEQA review or mitigation. Notably, the permitted use such as Distribution Facilities and Office/Professional would likely have substantial traffic impacts. The permitted uses including Auto Dismantling Yards and Milling and Planing Facilities would potentially create noise impacts similar or greater to the proposed project.

As demonstrated above, development of the Brunswick Industrial Site with industrial uses, consistent with the current M1-SP zoning, could reasonably be expected to result in above-ground uses that are more intensive in certain respects than the proposed project. This would be contrary to CEQA’s objectives for an alternative, which is to avoid or substantially lessen any of the significant effects of the project (Section 15126.6(f)). Therefore, this alternative is rejected from further consideration.

### **Reduced Hours** – 12 hours per day, dayshift only

Operating the mine and plant on the Brunswick Industrial Site during day shift hours only (7AM-7PM) would eliminate most noise during nighttime hours. However, if the mine were to run only 12 hours per day all the machinery and intensity of activities would be doubled to maintain the



same production rate. Capital and operating costs would increase substantially and likely make the project economically infeasible. Further, traffic impacts would increase due to greater number of employees working during the same hours. Moreover, as determined in Chapter 4.10, Noise and Vibration, noise during nighttime hours for the project is anticipated to be below County noise standards; therefore, this alternative would not be anticipated to reduce a significant impact. As discussed above, pursuant to Section 15126.6(f) of CEQA Guidelines, alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Therefore, this alternative is rejected from further consideration.

### **Night Trucking** – 24 hours per day trucking

Trucking of engineered fill to the Centennial Industrial Site and local construction markets via SR 49 is currently scheduled at 16 hours per day from 6AM to 10PM. With an average of 50 trucks per day this is approximately 3 trucks per hour, and with a maximum of 100 trucks per day, this is approximately 6 trucks per hour. Traffic impacts from trucks could be further reduced by trucking 24 hours per day, which would result in approximately 2 trucks per hour. However, due to the lower ambient noise level at night, this trucking would be anticipated to generate a significant noise increase at a residence along Whispering Pines Lane, when compared to the applicable criteria (i.e., FICON). This alternative is otherwise similar to the proposed project with respect to extent (e.g., use of Centennial and Brunswick Industrial Sites) and operations; thus, proposed project impacts would not be lessened or avoided. As discussed above, pursuant to Section 15126.6(f) of CEQA Guidelines, alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Therefore, this alternative is rejected from further consideration.

### **No Use of E. Bennett Road** – Trucks exiting via Brunswick Road

Project truck traffic would enter the site from the main entrance on Brunswick Road and exit the site at E. Bennett Road. Trucks exiting the site turn right onto E. Bennett Road and then left onto Brunswick at a four-way stop sign. The closest residence on the section of E. Bennett Road used by trucks is approximately 150 feet from the road. Noise impacts from trucks have been determined to be less than significant. However, noise at this residence could be reduced if trucks exited from the Brunswick Road gate versus the E. Bennett Road gate. If trucks were to exit from the Brunswick Road gate, turning left onto Brunswick Road, they could impede traffic on Brunswick Road due to the inability to accelerate quickly enough. If a light were added to the intersection this issue could be resolved but at the expense of slowing traffic on Brunswick Road, which is a County arterial road. While this alternative would reduce noise impacts from trucks for one residence, these impacts are not considered significant, and this alternative could cause new or increased traffic impacts; therefore, it is rejected from further consideration.

### **Forestation of Slopes on Engineered Fill Piles**

The project includes placement of six inches of topsoil and planting native grasses on the slopes of the Centennial and Brunswick engineered fill piles for erosion control. Under this alternative, the plantings of native trees and bushes on the slopes would decrease aesthetic impacts of the engineered fill piles, especially at the Centennial Industrial Site. To ensure that forestation does not increase fire hazard, spacing would be done in accordance with the State Board of Forestry and Fire Protection's, "General Guidelines for Creating Defensible Space, February 8, 2006". Based on the guidelines and 33% slope, trees would be separated horizontally by 20 feet and shrubs by 4 times its height. The spacing of trees for fire considerations would also result in a greater ability to patrol the site and identify homeless encampments. A certified landscape



architect would design the planting to achieve the best aesthetic result and consideration of wildfire safety.

The tree planting would result in a minor decrease in the GHG emissions of the project. The slope of the Centennial Industrial Site has an area of approximately four acres and at the Brunswick Industrial Site, the slope area is approximately 10 acres. Assuming a net benefit of 60 tonnes CO<sub>2</sub> per acre, total greenhouse gasses for the project would be reduced by 840 tonnes. However, the EIR determined that the project's operational GHG emissions would be below the applicable GHG significance threshold, and while the project's construction-period GHG emissions were determined to be significant, a reduction of 840 tonnes would not reduce the impact to below the applicable threshold. In addition, while the planting of trees along the slopes of the Centennial and Brunswick engineered fill piles would reduce the proposed project's aesthetic effects by adding screening, the substantial slopes would not be fully screened due to the required tree spacing, and the aesthetic impact would be anticipated to remain significant and unavoidable. Therefore, this alternative would not be anticipated to avoid or substantially lessen a significant impact identified for the project. Given the limited efficacy of this alternative, it is rejected from further consideration.

### **Alternatives Considered in this EIR**

The following range of alternatives is considered and evaluated in this section:

- Alternative 1: No Project (No Build) Alternative;
- Alternative 2: Elimination of Centennial Industrial Site and Expansion of Brunswick Fill Pile;
- Alternative 3: Expansion of Centennial Engineered Fill Pile and Elimination of Brunswick Engineered Fill Pile; and
- Alternative 4: Reduced Throughput.

Each of the project alternatives is described in detail below, with a corresponding analysis of each alternative's impacts in comparison to the proposed project. While an effort has been made to include quantitative data for certain analytical topics, where possible, qualitative comparisons of the various alternatives to the project are primarily provided. Such an approach to the analysis is appropriate as evidenced by CEQA Guidelines Section 15126.6[d], which states that the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed. The analysis evaluates impacts that would occur with the alternatives relative to the significant impacts identified for the proposed project. When comparing the potential impacts resulting from implementation of the foregoing alternatives, the following terminology is used:

- "Fewer" = Less than Proposed Project;
- "Similar" = Similar to Proposed Project; and
- "Greater" = Greater than Proposed Project.

When the term "fewer" is used, the reader should not necessarily equate this to elimination of significant impacts identified for the proposed project. For example, in many cases, an alternative would reduce the relative intensity of a significant impact identified for the proposed project, but the impact would still be expected to remain significant under the alternative, thereby requiring mitigation. In other cases, the use of the term "fewer" may mean the actual elimination of an impact identified for the proposed project altogether. Similarly, use of the term "greater" does not



necessarily imply that an alternative would require additional mitigation beyond what has been required for the proposed project. To the extent possible, this analysis will distinguish between the two implications of the comparative words “fewer” and “greater”.

See Table 6-1 at the end of this chapter for a comparison of the environmental impacts resulting from the considered alternatives and the proposed project.

### **Alternative 1: No Project (No Build) Alternative**

CEQA requires the evaluation of the comparative impacts of the “No Project” alternative (CEQA Guidelines Section 15126.6[e]). Analysis of the no project alternative shall:

“... discuss [...] existing conditions [...] as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.” (*Id.*, subd. [e][2]) “If the project is other than a land use or regulatory plan, for example a development project on identifiable property, the ‘no project’ alternative is the circumstance under which the project does not proceed. Here the discussion would compare the environmental effects of the property remaining in the property’s existing state versus environmental effects that would occur if the project were approved. If disapproval of the project under consideration would result in predictable actions by others, such as the proposal of some other project, this ‘no project’ consequence should be discussed. In certain instances, the no project alternative means ‘no build,’ wherein the existing environmental setting is maintained. However, where failure to proceed with the project would not result in preservation of existing environmental conditions, the analysis should identify the practical result of the project’s non-approval and not create and analyze a set of artificial assumptions that would be required to preserve the existing physical environment.” (*Id.*, subd. [e][3][B]).

The County has decided to evaluate a No Project (No Build) Alternative, which assumes that the Brunswick Industrial Site would remain in its current condition and would not be further developed. This alternative also assumes that the Centennial Industrial Site will be remediated under DTSC oversight, given that the clean-up effort is a separate project, but remain undeveloped.

With the exception of Project Objective 10, which is focused on minimizing impacts to sensitive habitats and species, the No Project (No Build) Alternative, would not meet any of the project objectives.

While fully described in the other sections of the EIR, the environmental settings of the Centennial and Brunswick Industrial Sites and East Bennett Right of Way (ROW) are provided here for the reader’s convenience.

### **Centennial Industrial Site Environmental Setting**

Similar to the EIR analysis, this Alternative assumes that the Centennial Industrial Site would still undergo remediation given that Rise Grass Valley Inc. has entered into a Voluntary Cleanup Agreement (VCA; Docket No. HSA-FY18/19-014) with the Department of Toxic Substances Control (DTSC) for the voluntary cleanup of soil contamination on the Centennial Industrial Site. A Centennial Industrial Site Remedial Action Plan (RAP; 2020) has been prepared by NV5, on behalf of Rise, and describes the proposed procedures for conducting remedial activities needed to meet Remedial Action Objectives (RAO’s). Separate CEQA review of the RAP is being conducted with DTSC as the CEQA lead agency, and an Initial Study/Mitigated Negative Declaration has been released for public review. The CEQA document identifies mitigation



measures with which Rise will need to comply, prior to and during remedial activities, which would ensure that physical impacts to the environment are mitigated to a less-than-significant level.

It is estimated that approximately half of the Centennial Industrial Site will consist of graded and revegetated areas under the post-remediation condition. An engineered fill pad would be located along the eastern portion of the site. The remaining areas will consist of varying topography covered with natural vegetation communities and a limited amount of aquatic resources, the primary feature of which is Wolf Creek. Wolf Creek is a perennial feature that runs along the northern portion of the Centennial Industrial Site.

### Brunswick Industrial Site Environmental Setting

The approximately 119-acre Brunswick Industrial Site is characterized by both natural and disturbed areas. Disturbed areas are generally a result of historic mining and lumber mill practices, public access, and ongoing management for many years. Within the Brunswick Industrial Site, the dumping of soils, landscape materials, and other miscellaneous items has also occurred for many years. A large section of the Brunswick Industrial Site located in the eastern areas along Brunswick Road would be characterized as disturbed and/or developed given the amount of pavement and impervious surfaces in those areas, as well as the remaining infrastructure related to historic mining and mill operations. Areas not subject to this regular type of previous disturbance are dominated by native habitat and, therefore, are also the baseline condition within the Brunswick Industrial Site.

The Brunswick Area is located in an area containing South Fork Wolf Creek, a perennial stream. Several intermittent and ephemeral streams connect directly to South Fork Wolf Creek within the Brunswick Industrial Site. South Fork Wolf Creek also flows to the south of the East Bennett Road ROW within the Brunswick Area. South Fork Wolf Creek contains associated riparian woodland and scrub and large tracks of wet meadow wetlands dominant in the northwestern section of the Brunswick Industrial Site.

South Fork Wolf Creek surfaces within the Brunswick Industrial Site south of a large manmade clay-lined pond and flows northwest across the Brunswick Area. South Fork Wolf Creek daylights from an existing 48-inch diameter culvert, which is approximately 1,600 feet long (Regional Water Quality Control Board [RWQCB] Order No. 88-185, December 18th, 1990). The 48-inch culvert is fed by surface drainage and road runoff on both the east and west sides of Brunswick Road, which crosses Brunswick Road through a culvert. Additionally, perennial surface drainage from the west side of Brunswick Road drains north to the 48-inch culvert inlet.

### East Bennett Road ROW Environmental Setting

The approximately 10-acre East Bennett Road ROW contains a developed and paved public road and ROW that has been used for decades. In addition, the shoulders of East Bennett Road that are included as part of the East Bennett Road ROW are also developed given the grading and fill material associated with the development of the road.

### Aesthetics

The proposed project would place waste rock and sand tailings (i.e., engineered fill) at the Centennial Industrial Site. The engineered fill would be generated from underground mining operations and mineral processing conducted at the Brunswick Industrial Site. Under the No Project (No Build) Alternative, no underground mining operations would occur on the Brunswick Industrial Site, and thus, no waste rock or sand tailings would be generated, eliminating the need



to place engineered fill at the Centennial Industrial Site. While this would substantially improve the aesthetic condition of the Centennial Industrial Site, it is important to note that vegetation removal and earthmoving would still take place on the Centennial Industrial Site as a result of the separate Centennial Clean-Up Project. Thus, the visual character or quality of the Centennial Industrial Site will change regardless of the proposed project.

Given that this Alternative would not include development of the above-ground structures at the Brunswick Industrial Site, nor the placement of substantial engineered fill on the southern portion of the Site, the visual character or quality of the site and its surroundings would not be subject to substantial degradation.

Based on the above considerations, the significant and unavoidable aesthetic impacts identified for the proposed project would be eliminated under the No Project (No Build) Alternative, resulting in fewer impacts than the proposed project.

### Air Quality, Greenhouse Gas Emissions, and Energy

Because the No Project (No Build) Alternative would not involve construction activities, the Alternative would not result in construction emissions and would not generate ROG, NO<sub>x</sub>, and PM<sub>10</sub> emissions in exceedance of the NSAQMD's significance thresholds. In addition, the Alternative would not result in the generation of ROG, NO<sub>x</sub>, and PM<sub>10</sub> emissions in excess of the NSAQMD's significance thresholds during the operational and reclamation phases of the proposed project. The Alternative would not disturb naturally-occurring asbestos as could possibly occur during underground mining, though the proposed project would implement an Asbestos, Serpentine, and Ultramafic Rock Management Plan (ASUR). Nevertheless, there would be no potentially significant adverse effect under this Alternative related to emissions of asbestos dust attributable to on-site ground disturbing activities and use of tailing material as fill having the potential to expose receptors to substantial concentrations of asbestos. With respect to GHG emissions, the Alternative would not result in a significant GHG impact as a result of construction activities. Thus, the impacts identified for the proposed project related to air quality and GHG emissions would not occur under the No Project (No Build) Alternative. Overall, no impacts related to Air Quality and GHG emissions would occur under the No Project (No Build) Alternative.

### Biological Resources

Under the No Project (No Build) Alternative, construction activities, including ground disturbance, would not occur on the Centennial and Brunswick Industrial Sites. As such, the Alternative would not have the potential to impact special-status plants, foothill yellow-legged frog, western pond turtle, California red-legged frog, California black rail, coast horned lizard, special-status bats, and non-special status raptors and migratory birds. In addition, the Alternative would not result in any substantial adverse effects on riparian habitat and/or other sensitive natural communities and/or have a substantial adverse effect on federal or State protected aquatic resources. Overall, the impacts identified for the proposed project related to biological resources would not occur under the No Project (No Build) Alternative.

### Cultural and Tribal Cultural Resources

Because underground mining would not occur under the No Project (No Build) Alternative, a substantial adverse effect would not occur to the underground mine workings, which were determined to be historically significant pursuant to the National Register of Historic Places (NRHP) and California Register of Historic Resources (CRHR) criteria A/1 and C/3. Because land disturbance would not occur under the No Project (No Build) Alternative, the Alternative would



not have the potential to result in impacts to archaeological resources, though the EIR analysis found no evidence of archaeological resources at either Site. Nevertheless, out of an abundance of caution the EIR includes mitigation measures aimed at protecting any unknown cultural and tribal cultural resources should they be encountered during construction. Overall, the impacts identified for the proposed project related to cultural resources would not occur under the No Project (No Build) Alternative.

### Geology, Soils, and Mineral Resources

Because the No Project (No Build) Alternative would not include underground mining and generation of engineered fill, grading or other ground-disturbing activities, substantial soil erosion would not occur. In addition, the near-surface geotechnical features identified for closure due to dewatering of the mine would not be adversely impacted, though they may currently pose some level of risk that would continue under the Alternative. Other geotechnical issues that could pose a significant effect under the proposed project, but would not pose an adverse effect under the Alternative, include potential seismic hazards at the Brunswick Industrial Site and slope stability associated with temporary steep cut slopes at the new service shaft collar. However, the proposed project would fix a few existing geotechnical issues that would remain under this Alternative, including the safety concern related to the presence of the South Idaho Shaft on the Centennial Industrial Site, and an unstable portion of the clay-lined pond dam on the Brunswick Industrial Site.

Overall, impacts related to Geology, Soils, and Mineral Resources would be fewer under the No Project (No Build) Alternative compared to the proposed project.

### Hazards and Hazardous Materials

As previously noted, the EIR determined that the proposed project would not result in a significant impact related to creating a significant hazard through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment related to operations at the Centennial Industrial Site, given the post-remediation baseline condition.

The EIR determined that the proposed project could result in a significant impact related to creating a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, specifically, the transport and underground storage and use of explosives at the Brunswick Industrial Site. Compliance with applicable federal (MSHA, OSHA), State (CCR), and local regulations, and the additional mitigation measures in this EIR, would reduce the significant hazard related to transport, underground storage and use of explosives to a less-than-significant level. Because the use of explosives would be eliminated under the No Project (No Build) Alternative, the significant impact would also be eliminated.

The EIR determined that the proposed project could result in a significant impact related to creating a significant hazard through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment related to the Brunswick Industrial Site, given the presence of elevated arsenic in the southeastern paved area, potential residual petroleum contamination in a few locations, and presence of groundwater monitoring wells of unknown status. While the Alternative would not include development that could disturb, and potentially, exacerbate these hazards, on the other hand the Alternative would not remove these hazards from the Brunswick Industrial Site, as would be the case under the proposed project due to the mitigation required in the EIR. Thus, the hazards would remain on the Brunswick Industrial Site.



Based on the above considerations, the No Project (No Build) Alternative would result in fewer impacts related to hazards and hazardous materials (at the Brunswick Industrial Site) as compared to the proposed project.

### Hydrology and Water Quality

The No Project (No Build) Alternative would not result in on-site construction disturbance or above-ground operations such that the following project-related significant impacts to water quality would not occur: Centennial Industrial Site: engineered fill pad construction; Brunswick Industrial Site: operations within industrial area, underground placement of Cement Paste Backfill, use of clay-lined pond for water treatment process purposes, engineered fill pad construction, and treated water discharge in South Fork Wolf Creek. In addition, the No Project (No Build) Alternative would not necessitate dewatering of the mine; thus, there would not be a substantial reduction in groundwater supplies resulting in effects to nearby wells, though the proposed project includes mitigation to offset impacts to wells (i.e., provision of potable water service). Further, due to the lack of on-site operations, the No Project (No Build) Alternative would not result in the substantial alteration of drainage patterns, and for the Centennial Industrial Site, risk release of pollutants in a flood hazard area. It is worth noting, however, that the proposed project's detention systems on both the Centennial and Brunswick Industrial Sites would reduce peak flows in Wolf Creek and South Fork Wolf Creek, respectively, below predevelopment levels. For example, the Centennial Industrial Site detention basin and outlet structure would reduce the peak discharge to Wolf Creek by over 27 cubic feet per second (cfs) for the 10-year storm and by over 44 cfs for the 100-year storm. Similarly, the Brunswick Industrial Site detention basin and outlet structure would reduce the peak discharge to South Fork Wolf Creek by over 48 cfs for the 2-year storm, by over 60 cfs for the 10-year storm, by over 40 cfs for the 25-year storm, and by over 25 cfs for the 100-year storm.

Overall, the impacts identified for the proposed project related to hydrology and water quality would not occur under the No Project (No Build) Alternative.

### Noise and Vibration

The No Project (No Build) Alternative would not involve construction and operational activities, with the exception of temporary activities on the Brunswick Industrial Site, such as the firewood program. Thus, unlike the proposed project, the Alternative would not result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity, nor a substantial permanent increase in ambient noise levels in the vicinity of the project due to haul truck traffic should Jake brakes be used. In addition, the EIR conservatively concludes that the combined operational noise sources at the Brunswick Industrial Site could result in a significant noise impact. With respect to vibration, the EIR determined that while blasting is not projected to exceed applicable thresholds, a ground vibration monitoring program should be implemented to determine the actual levels of ground vibration at commencement of mining. These operational noise and vibration impacts would not occur under the No Project (No Build) Alternative. It is noteworthy that the significant and unavoidable construction noise impact related to installation of the potable water line in East Bennett Road would be eliminated under this Alternative.

Overall, substantial impacts related to Noise and Vibration would not occur under the No Project (No Build) Alternative.



### Transportation and Circulation

The No Project (No Build) Alternative would not generate construction traffic or operational vehicle traffic on local roadways and, thus, unlike the proposed project, the Alternative would not result in a significant construction traffic impact, nor would General Plan LOS policy conflicts occur under the EPAP Plus Project conditions to the intersections of Brunswick Road/Idaho Maryland Road, Brunswick Road/SR 174, and Idaho Maryland Road/Centennial Drive; and under the Cumulative Plus Project scenarios to the intersections of Brunswick Road/SR 174 and Sutton Way/Dorsey Drive. The proposed project would also result in a significant effect to the intersection queue during the Cumulative Plus Project scenarios (Brunswick Road/Sutton Way), which would not occur under this Alternative. Further, the EIR determined that proposed project (Brunswick Industrial Site operations) would have an impact related to truck turn movements at the Millsite Road/E. Bennett Road project egress at the Brunswick Industrial Site; this effect would not occur under this Alternative.

The EIR determined that some of the above-noted impacts would be considered significant and unavoidable due to the uncertainty concerning certain mitigation measures. The subject impacts are the EPAP Plus Project and Cumulative Plus Project intersection impacts to Brunswick Road/SR 174 and the Cumulative Plus Project intersection queue at Brunswick Road/Sutton Way. These significant and unavoidable impacts would be eliminated under this Alternative.

Overall, significant transportation impacts would not occur under the No Project (No Build) Alternative.

### Wildfire

The No Project (No Build) Alternative would not result in a significant impact related to exacerbating wildfire hazards, as compared to the proposed project. For example, above-ground machinery would not be operated at both project sites, with the exception of limited equipment use associated with the senior firewood program at the Brunswick Industrial Site. Therefore, potential vegetation fires associated with on-site equipment operations would be substantially reduced under this Alternative. However, whereas the proposed project would reduce on-site fuel sources by removing on-site forest land, such would not be the case for the No Project (No Build) Alternative. The proposed project would result in the loss of up to approximately 6.5 acres of forest land on the Centennial Industrial Site (assuming post-remediation baseline) and approximately 18.5 acres of forest land on the Brunswick Industrial Site. The reduction in on-site vegetation would result in a concomitant reduction in fuel sources, and thus, wildfire hazard.

Overall, it is anticipated that the No Project (No Build) Alternative would result in fewer wildfire hazards as compared to the proposed project.

## **Alternative 2: Elimination of Centennial Industrial Site and Expansion of Brunswick Fill Pile**

The IMM Project proposes to transport and place approximately 1,600,000 tons of engineered fill at the Centennial Industrial Site in order to create 31 acres of flat usable industrial land at that site. The Centennial Industrial Site could be excluded from the proposed project as the equivalent amount of engineered fill could be placed by increasing the height of the planned engineered fill area at the Brunswick Industrial Site.

This alternative would eliminate the Centennial Industrial Site, and any related impacts, entirely from the IMM Project. The indirect economic benefit from the creation of 52 acres of flat industrial



land would be lost (31 acres of flat industrial land at the Centennial Industrial Site and 21 acres at the Brunswick Site – Brunswick acreage included here because the final pad configuration under this alternative would not be conducive to future development).

Project Objectives 1 through 7 and 10 would be achieved with this alternative and operating costs decreased due to the elimination of trucking from the Brunswick to Centennial Industrial Site. Project Objectives 8 and 9, related to increasing usable land for future industrial use at the Centennial and Brunswick Industrial Sites, respectively, would not be achieved.

The design of the engineered fill pad at Brunswick Industrial Site, under the proposed project scenario, slopes from a final elevation of approximately 2,830 ft mean sea level (msl) at the hillside to an elevation of 2,820 ft msl at the crest of the pad. The engineered fill pad at the Brunswick Industrial Site is designed to maximize usable area after construction. Alternative 2 would continue placing fill within the existing footprint to an elevation of ~2,880 ft msl, or approximately 50 feet higher, as shown in Figure 6-2 and Figure 6-3. The placement of this additional fill would add additional volume of approximately 30 million ft<sup>3</sup>, or approximately 1.7 million tons, and allow for the replacement of storage lost from the elimination of the Centennial Industrial Site. The additional fill would have an area at the base elevation at 2,830 ft msl of approximately 18.5 acres and at the top 2,880 ft msl elevation of approximately 6.5 acres. The intensity of activity related to construction of the larger engineered fill pad under this Alternative would not increase, but the duration of the activity would be lengthened due to the increase in material volume. Other aspects of the proposed project would remain unchanged.

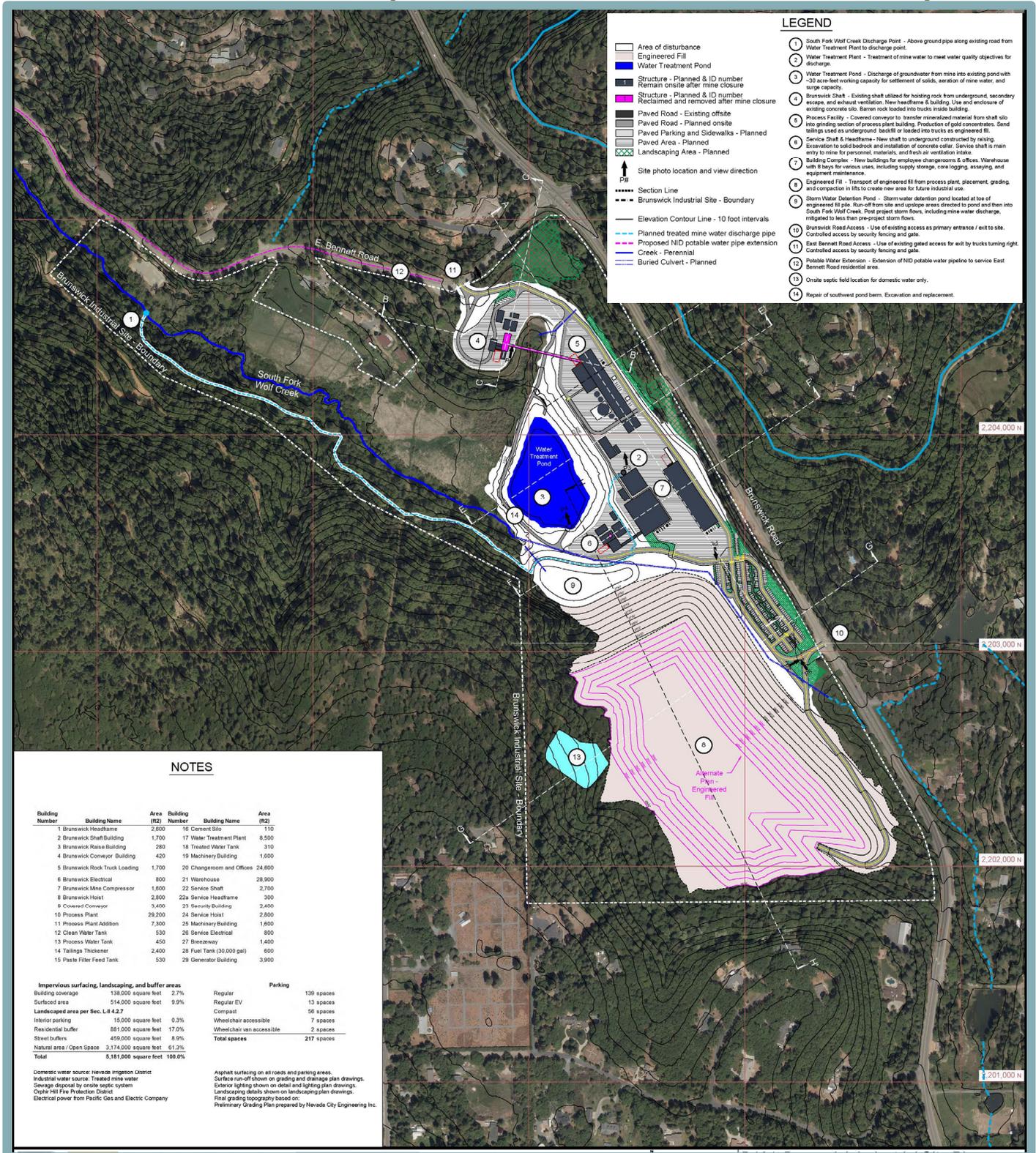
### Aesthetics

The proposed project would place waste rock and sand tailings (i.e., engineered fill) at the Centennial Industrial Site. The engineered fill would be generated from underground mining operations and mineral processing conducted at the Brunswick Industrial Site. The EIR determined that the placement of substantial engineered fill at the Centennial Industrial Site would result in a significant and unavoidable impact related to the substantial degradation or the visual character of quality of the site and its surroundings. Under the Elimination of Centennial Industrial Site and Expansion of Brunswick Fill Pile Alternative (“Alternative”), engineered fill generated at the Brunswick Industrial Site would not be placed on the Centennial Industrial Site. Therefore, the significant and unavoidable aesthetic impact created at the Centennial Industrial Site by the proposed project would be eliminated under this Alternative. It is important to note that vegetation and earthmoving would still take place on the Centennial Industrial Site as a result of the separate Centennial Clean-Up Project. Thus, the visual character or quality of the Centennial Industrial Site will change regardless of the proposed project.

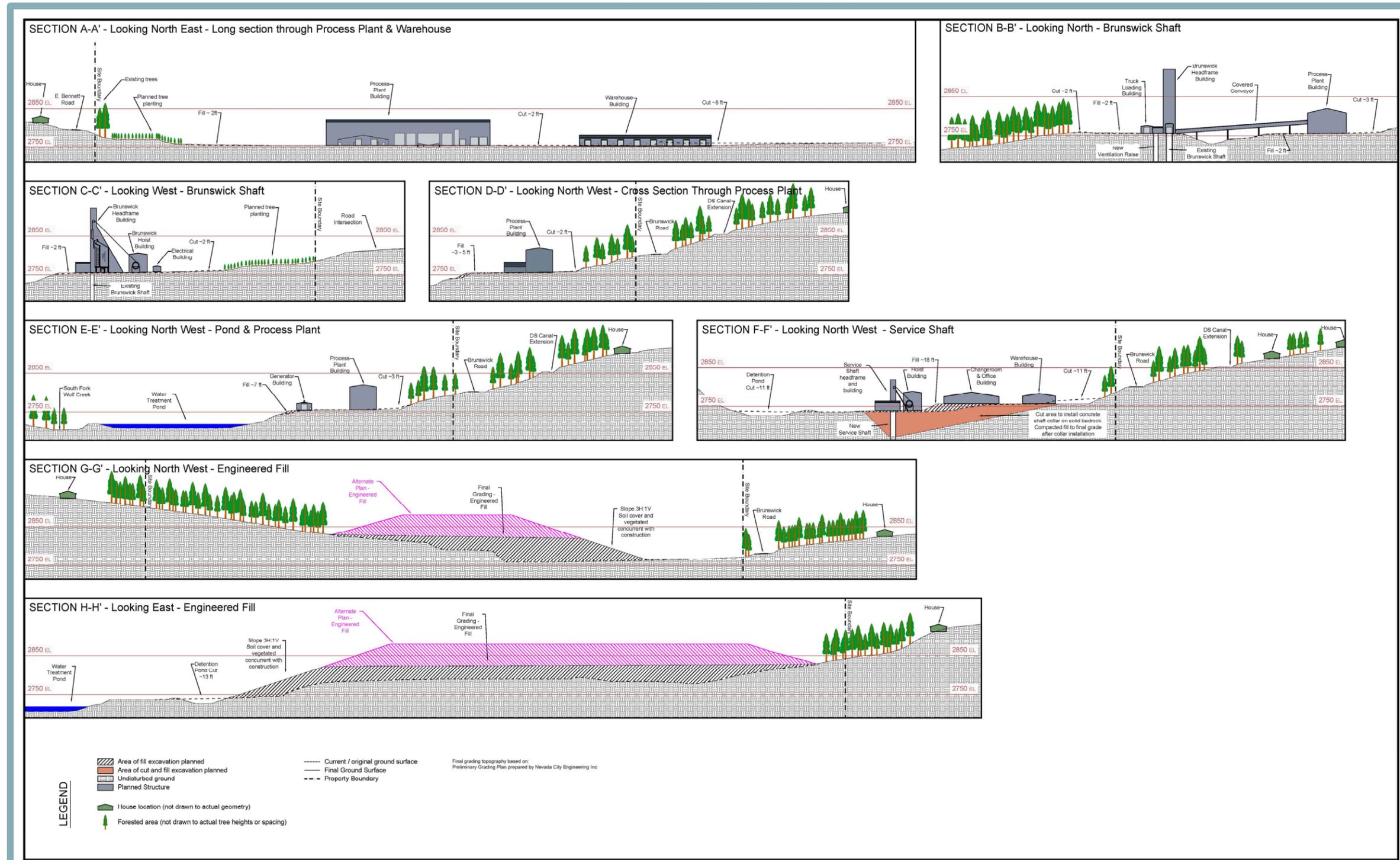
With respect to the Brunswick Industrial Site, this Alternative would place substantially more engineered fill on the southern portion of the site, as compared to the proposed project. As previously discussed, the placement of this additional fill would add additional volume of approximately 30 million ft<sup>3</sup>, or approximately 1.7 million tons, and allow for the replacement of storage lost from the elimination of the Centennial Industrial Site. The engineered fill pad would be approximately 50 feet higher than the top of the fill pad created by the proposed project. As shown in Figure 6-3, the fill pad would be more visible through the buffer of trees from nearby properties but would still be below the elevation of residences on neighboring properties. The trees that partially screen public views of the property from Brunswick Road would remain and partially obscure the visibility of the expanded fill pile from the roadway.



**Figure 6-2**  
**Alternative 2 Site Plan (Elimination of Centennial Industrial Site)**



**Figure 6-3  
 Alternative 2: Cross-Sections**



Notwithstanding, the expanded fill pad would increase the severity of the significant and unavoidable aesthetic impact identified in the EIR.

Overall, this Alternative could be considered to have fewer aesthetic impacts as compared to the proposed project, given it would eliminate the significant and unavoidable aesthetic impact at the Centennial Industrial Site. It is recognized, however, the severity of the significant aesthetic impact at the Brunswick Industrial Site would be increased.

### Air Quality, Greenhouse Gas Emissions, and Energy

The EIR determined that implementation of the proposed project could result in a conflict with implementation of the applicable air quality plan through generation of construction and operational criteria pollutant emissions that would exceed the NSAQMD's applicable thresholds. With respect to GHG, the proposed project could result in a significant GHG impact during the construction period. However, the EIR requires mitigation in order to ensure that the aforementioned impacts are reduced to less-than-significant levels. Overall initial construction activity would be reduced for this Alternative, given that the Centennial Industrial Site would not need to be prepped in any way. However, given the estimated construction emission levels in Table 4.3-13 of the Air Quality, GHG, and Energy chapter of this EIR, similar to the proposed project, the Alternative would be expected to generate a significant temporary air quality and GHG construction impact.

While the Centennial Industrial Site would be eliminated under this Alternative, the engineered fill that would have been placed at Centennial would need to be deposited at the Brunswick Industrial Site. In other words, the same level of overall operational activities associated with placement of engineered fill would be expected to occur under this Alternative. Reduced mobile emissions could be generated during this phase, however, due to the elimination of trucking to/from Centennial, as compared to the proposed project. Overall, similar to the proposed project, this Alternative would be expected to have a significant air quality operational impact that could be mitigated to a less-than-significant level.

Haul truck use from the Brunswick Industrial Site to the Centennial Industrial Site would be eliminated under this Alternative. Thus, sensitive receptors along this haul route would not be exposed to diesel particulate matter (DPM), which would reduce cancer risk, as compared to the proposed project (note: the EIR determined a less-than-significant DPM-related impact would occur). It is noted that, similar to the proposed project, the haul route from the Brunswick Industrial Site to the highway would still be utilized with this Alternative once the Brunswick fill pad reaches its design elevation.

In addition, the Alternative, similar to the proposed project, could result in emissions of asbestos dust related to on-site ground disturbing activities having the potential to expose receptors to substantial concentrations of asbestos. However, given the elimination of the Centennial Industrial Site, the potential disturbance of Centennial mine tailings containing NOA would not occur. Similar mitigation (e.g., Asbestos Dust Mitigation Plan) would be required for this Alternative to ensure the impact is less than significant.

Overall, the air quality and GHG impacts associated with this Alternative could be fewer as compared to the proposed project.



### Biological Resources

The EIR determined that implementation of the proposed project could result in potential significant adverse effects to special-status plants at both the Centennial and Brunswick Industrial Sites; foothill yellow-legged frog, western pond turtle, California red-legged frog, California black rail, coast horned lizard, special-status bats, and non-special status raptors and migratory birds at both Sites. However, the EIR requires mitigation in order to ensure that impacts related to the aforementioned biological resources would be reduced to less-than-significant levels. Given that this Alternative would eliminate the Centennial Industrial Site, the potential adverse effects to all of the aforementioned biological resources would be reduced, though they would still potentially occur at the Brunswick Industrial Site. It is important to note that the project impacts to Pine Hill flannelbush are specific to the Centennial Industrial Site; thus, they would be avoided under this Alternative.

The EIR determined that the proposed project would result in approximately 0.033-acre of impact to mapped streams within the Centennial Industrial Site. The impact to mapped streams on the Centennial Industrial Site would be avoided under this Alternative.

Overall, the biological resources impacts associated with this Alternative would be fewer when compared to the proposed project.

### Cultural and Tribal Cultural Resources

The EIR determined that, at both Sites, implementation of the proposed project could result in a significant but mitigable impact to unknown archaeological resources and Tribal Cultural Resources, as defined in Public Resources Code, Section 21074. The potential for impact to such resources would be eliminated at the Centennial Industrial Site under this Alternative. In addition, the EIR determined that the project would have a significant adverse effect on the underground workings of the Idaho-Maryland Mine. However, the EIR requires mitigation in order to ensure that impacts related to cultural resources would be less than significant. The potential impact to the historic underground workings would still occur under this Alternative.

Overall, this Alternative could result in reduced impacts to cultural/tribal cultural resources when compared to the proposed project.

### Geology, Soils, and Mineral Resources

The EIR determined that implementation of the proposed project could result in significant impacts related to the following geology and soils issues at both Sites: soil erosion related to stockpiles, engineered fill slopes, and general site disturbance during construction; presence of undocumented fill; and thin lenses of expansive soils. Significant geology issues specific to the Centennial Industrial Site include the safety concern related to the presence of the South Idaho Shaft. The above-noted geology and soils impacts at the Centennial Industrial Site would be eliminated under this Alternative. The potential geology and soils impacts that could occur at the Brunswick Industrial Site during construction and operational activities would remain with the Alternative, and some may be increased given the substantial increase in the engineered fill pad that would occur at the Brunswick Industrial Site (e.g., soil erosion).

Overall, this Alternative could result in fewer impacts to geology and soils when compared to the proposed project.



### Hazards and Hazardous Materials

The EIR did not identify any significant project-related impacts concerning hazards and hazardous materials at the Centennial Industrial Site. This is due to the fact that the Centennial Industrial Site is subject to a separate remediation project. As previously discussed, Rise Grass Valley Inc. has entered into a Voluntary Cleanup Agreement (VCA; Docket No. HSA-FY18/19-014) with the DTSC for the voluntary cleanup of soil contamination on the Centennial Industrial Site.

The EIR determined that significant hazards/hazardous materials impacts would be limited to the Brunswick Industrial Site. For example, potentially significant hazards identified on the Brunswick Industrial Site include elevated arsenic in the southeastern paved area, potential residual petroleum contamination in a few locations, and presence of groundwater monitoring wells of unknown status. However, the EIR requires mitigation in order to ensure that the aforementioned impacts are reduced to less-than-significant levels.

The EIR also determined that the proposed project could have a significant impact related to transport, underground storage and use of explosives at the Brunswick Industrial Site. With implementation of mitigation in this EIR, the impact would be reduced to a less-than-significant level.

The above-noted project-related impacts associated with construction and operational activities at the Brunswick Industrial Site would also occur as part of this Alternative.

Overall, given that the EIR found significant hazards/hazardous materials impacts would be limited to the Brunswick Industrial Site, and these same significant impacts would occur under this Alternative, the Alternative would have similar impacts related to hazards/hazardous materials when compared to the proposed project.

### Hydrology and Water Quality

The EIR determined that implementation of the proposed project at the Centennial Industrial Site could result in potential construction and operational impacts related to water quality at the Centennial Industrial Site (e.g., engineered fill pad construction); risk release of pollutants in flood hazard area associated with Wolf Creek; and substantial alteration of drainage patterns. These significant project-related effects would be avoided with implementation of this Alternative.

The project-related significant effects specific to the Brunswick Industrial Site would still occur under this Alternative, including impacts to substantial alteration of drainage patterns and water quality associated with operations within the industrial area, underground placement of Cement Paste Backfill, use of clay-lined pond for water treatment process purposes, engineered fill pad construction, treated water discharge in South Fork Wolf Creek, and substantial reduction in groundwater supplies due to operation of the mine. Similar to the proposed project, the Alternative would be required to implement mitigation in order to ensure that impacts related to hydrology and water quality are reduced to less-than-significant levels.

Overall, this Alternative could result in fewer impacts to hydrology and water quality when compared to the proposed project.

### Noise

The EIR determined that the majority of project-related significant noise and vibration impacts would occur as a result of operations at the Brunswick Industrial Site. For example, the EIR



conservatively concludes that the combined operational noise sources at the Brunswick Industrial Site could result in a significant noise impact. With respect to vibration, the EIR determined that while blasting is not projected to exceed applicable thresholds, a ground vibration monitoring program should be implemented to determine the actual levels of ground vibration at commencement of mining, and if necessary, implement additional protective measures. The EIR requires mitigation in order to ensure that the aforementioned impacts are reduced to a less-than-significant level.

Likewise, the significant and unavoidable construction noise impact, which would result from installation of the potable water line along E. Bennett Road, would still occur as part of this Alternative.

One significant project-related impact could be avoided with implementation of this Alternative; this is the impact related to potential use of Jake brakes along the haul route connecting the Brunswick and Centennial Industrial Sites. The EIR determined that the proposed project could result in a substantial increase in ambient noise levels in the vicinity of the project due to haul truck traffic should Jake brakes be used.

While equipment noise associated with placement of engineered fill at the Brunswick Industrial Site would occur for a longer period of time due to the substantial amount of additional fill that would be placed at Brunswick under this Alternative, the EIR determined that equipment-related noise at the nearest sensitive receptors would be in compliance with the County's noise standards.

Overall, this Alternative could result in slightly fewer noise impacts when compared to the proposed project.

### Transportation and Circulation

As discussed in the Transportation and Circulation chapter of the EIR, for the proposed project, the Centennial Industrial Site is expected to be an active site with delivery of engineered fill occurring for a period of approximately five years. The engineered fill is projected to be delivered to construction sites accessible from SR 49 for the remaining period of the transportation analysis. Therefore, two scenarios were analyzed:

- **Scenario 1:** Transport of engineered fill to the Centennial Industrial Site.
- **Scenario 2:** Transport of engineered fill to construction sites accessible via SR 49.

Based on a review of Chapter 4.12, Transportation and Circulation, of this EIR, it can be seen that Scenario 1 would result in several intersection impacts (i.e., level of service conflicts). Based on a review of the intersection locations, these impacts would occur at locations that are unaffected by project truck traffic. In other words, the intersection impacts are a result of project employee commute trips. Therefore, while this Alternative would reduce the amount of truck travel on local roads, the significant intersection impacts identified for the proposed project would remain with implementation of this Alternative. A similar situation exists for the Cumulative Plus Project intersection queue impact at Brunswick Road/Sutton Way. This location is unaffected by project truck traffic, so this significant impact would remain with implementation of this Alternative.

The EIR also determined that proposed project truck traffic to the Centennial Industrial Site would result in pavement impacts on the following roadway segments:



- Brunswick Road northbound between E. Bennett Road and Whispering Pines Lane.
- E. Bennett Road between Project Driveway and Brunswick Road (eastbound).

These impacts would be eliminated with implementation of this Alternative, at least until such time that haul truck traffic commences to the highway when the design height of the Brunswick fill pad is achieved.

Implementation of this Alternative would also eliminate the truck turning movements along Whispering Pines Lane into the Centennial Industrial Site driveway; thus, widening along the Centennial Industrial Site's frontage for purposes of facilitating adequate truck turn movements into and out of the Site would not be required for this Alternative.

Overall, this Alternative could result in slightly fewer impacts to transportation when compared to the proposed project, though the significant and unavoidable transportation impacts identified for the proposed project would remain.

### Wildfire

The EIR determined that implementation of the proposed project would result in a significant impact related to exacerbating wildfire hazards at both the Centennial and Brunswick Industrial Sites. The EIR requires mitigation in order to ensure that the aforementioned impact is reduced to a less-than-significant level. Thus, while elimination of the Centennial Industrial Site would reduce the overall potential for wildfire hazards to be exacerbated, in comparison to the proposed project, a significant impact, prior to mitigation, would still occur under this Alternative due to operations at the Brunswick Industrial Site.

Overall, this Alternative could result in fewer impacts related to exacerbating wildfire hazards when compared to the proposed project.

### **Alternative 3: Expansion of Centennial Fill Pile and Elimination of Brunswick Fill Pile**

The proposed project includes the placement of approximately 2,200,000 tons of engineered fill at the Brunswick Industrial Site in order to create 21 acres of flat usable industrial land at that site. The equivalent amount of engineered fill could be placed by increasing the height of the planned engineered fill area at the Centennial Industrial Site.

Alternative 3 would eliminate the engineered fill pile at the Brunswick Industrial Site, and any related impacts, from the IMM Project, while the Centennial engineered fill pile would be higher with reduced usable area. The indirect economic benefit from the creation of 19 acres of flat industrial land would be lost (18 acres of flat industrial land in alternate plan versus 31 acres in base plan at the Centennial Industrial Site and 15 acres of flat industrial land in alternate plan versus 21 acres in base plan at the Brunswick Industrial Site).

This alternative would fully meet Project Objectives 1 through 7 and 10; however, operating costs would increase due to the additional trucking from the Brunswick to Centennial Industrial Site. Project Objectives 8 and 9, related to increasing usable land area at the Centennial and Brunswick Industrial Sites to allow future industrial use, while being met with this alternative, would be better met by the proposed project. This is because the proposed project would create 31 acres of land suitable for future industrial use at Centennial, whereas this alternative would create 18 acres.



Similarly, the project would create 21 acres of land suitable for future industrial use at Brunswick, whereas this alternative would create 15 acres.

The design of the engineered fill pad at Centennial Industrial Site, under the proposed project scenario, slopes from a final elevation of approximately 2,560 ft msl at the east side to an elevation of 2,520 ft msl at the west side. The engineered fill pad at the Centennial Industrial Site is designed to maximize usable area after construction. The Alternative 3 plan would continue placing fill within the existing footprint to an elevation of approximately 2,580 ft msl as shown in Figure 6-4. The placement of this additional fill would add additional volume of approximately 41 million ft<sup>3</sup>, or approximately 2.3 million tons, and allow for the replacement of storage lost from the elimination of the fill pile at Brunswick Industrial Site. The additional fill would have an area at the top 2,580 ft msl elevation of approximately 17.8 acres.

### Aesthetics

The EIR determined that the placement of substantial engineered fill at the Centennial Industrial Site would result in a significant and unavoidable impact related to the substantial degradation of the visual character or quality of the site and its surroundings. Under the Expansion of Centennial Fill Pile and Elimination of Brunswick Fill Pile Alternative (“Alternative”), the engineered fill that would have been placed on the Brunswick Industrial Site would instead be placed at the Centennial Industrial Site, thus adding substantially more fill (approximately 2.3 million tons) to the Centennial Industrial Site than is proposed for the project. As shown in Figure 6-4, the fill pad would be increased in height, from 20-60 feet, depending upon location. Therefore, the proposed project’s significant and unavoidable aesthetic impact at the Centennial Industrial Site would be substantially increased in severity by this Alternative. On the other hand, the severity of the aesthetic impacts at the Brunswick Industrial Site would be lessened by this Alternative, and for those public viewpoints along Brunswick Road where only the engineered fill pad would be visible, the proposed project’s aesthetic impact would be eliminated.

However, given that the majority of public viewpoints evaluated in the Aesthetics chapter of this EIR for the Brunswick Site would contain industrial mine structures (e.g., Process Plant Building, Brunswick headframe), and these would still be developed for this Alternative, most of the viewpoints would still be subject to a significant and unavoidable aesthetic impact.

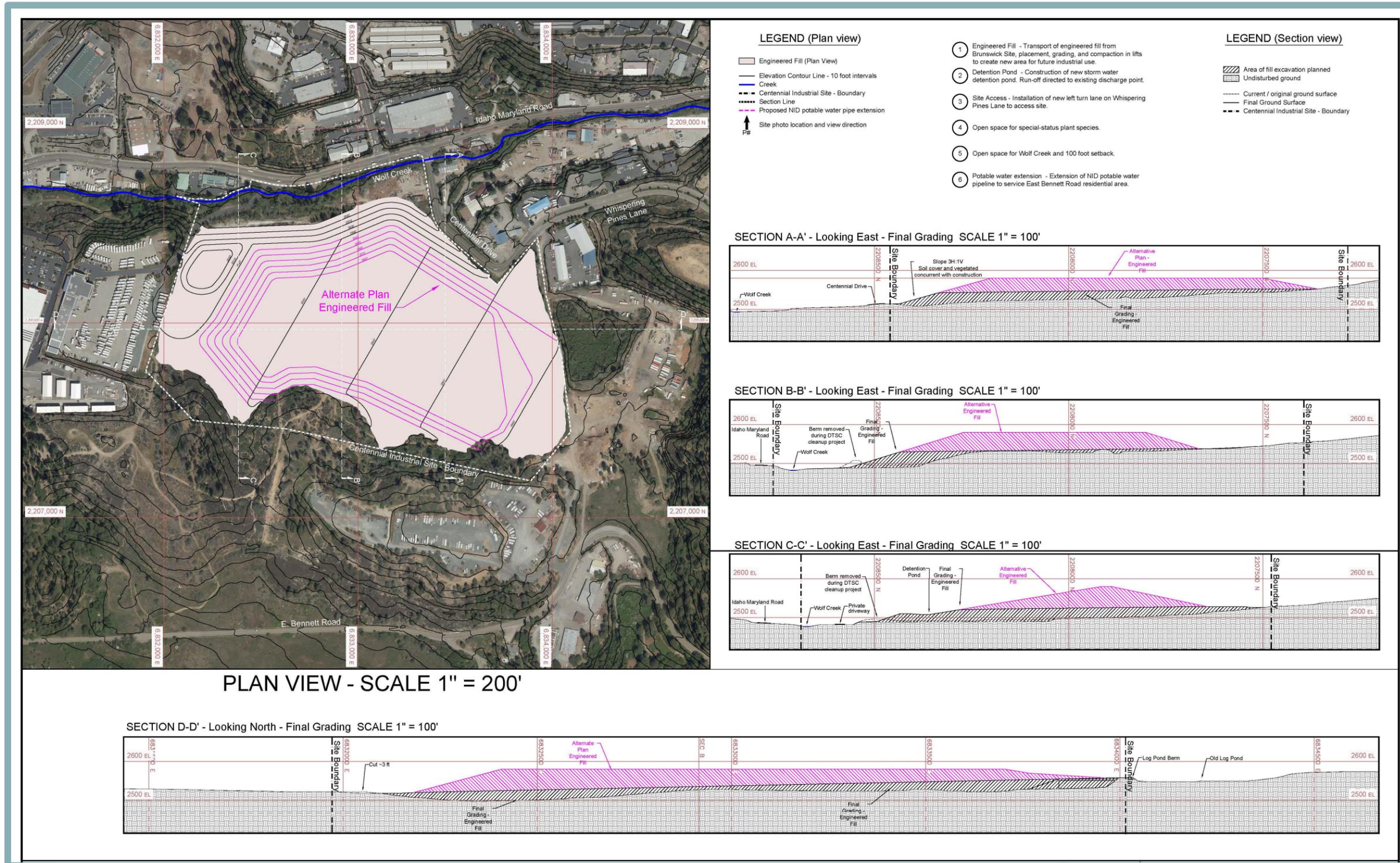
Overall, this Alternative could be considered to have similar or slightly fewer aesthetic impacts as compared to the proposed project, given it would reduce the severity of significant aesthetic impacts at the Brunswick Industrial Site (and, for Viewpoints 8 and 10, eliminate the impact), but substantially increase the severity of the significant aesthetic impact at the Centennial Industrial Site.

### Air Quality, Greenhouse Gas Emissions, and Energy

The EIR determined that implementation of the proposed project could result in a conflict with implementation of the applicable air quality plan through generation of construction and operational criteria pollutant emissions that would exceed the NSAQMD’s applicable thresholds. With respect to GHG, the proposed project could result in a significant GHG impact during the construction period. However, the EIR requires mitigation in order to ensure that the aforementioned impacts are reduced to less-than-significant levels. Overall initial construction activity would be reduced for this Alternative, given that the Brunswick Industrial Site fill pad area would not need to be prepped in any way.



**Figure 6-4**  
**Alternative 3: Site Plan**



However, given the estimated construction emission levels in Table 4.3-13 of the Air Quality, GHG, and Energy chapter of this EIR, similar to the proposed project, the Alternative would be expected to generate a significant temporary air quality and GHG construction impact.

While the Brunswick fill pile would be eliminated under this Alternative, the engineered fill that would have been placed at Brunswick would need to be deposited at the Centennial Industrial Site. In other words, a similar level of overall operational activities associated with placement of engineered fill would be expected to occur under this Alternative. Additional mobile emissions could be generated during this phase, however, due to the extended duration that haul trucks would be travelling to/from Centennial, as compared to the proposed project. Overall, similar to the proposed project, this Alternative would be expected to have a significant air quality operational impact that could be mitigated to a less-than-significant level.

The amount/duration of haul truck use from the Brunswick Industrial Site to the Centennial Industrial Site would increase under this Alternative, given that the duration would essentially double (approximately 5 years of trucking to Centennial under the proposed project scenario vs. approximately 11 years for the Alternative). This would result in exposing sensitive receptors along the haul route to more diesel particulate matter (DPM), which could translate to increased cancer risk, as compared to the proposed project, for which the EIR determined a less-than-significant TAC-related impact would occur.

The Alternative, similar to the proposed project, could result in emissions of asbestos dust related to on-site ground disturbing activities having the potential to expose receptors to substantial concentrations of asbestos. However, given the elimination of the Brunswick engineered fill pad and associated ground disturbance within the fill pad's footprint, the potential disturbance of NOA could be reduced. Similar mitigation (Asbestos Dust Mitigation Plan) would be required for this Alternative to ensure the impact is less than significant.

Overall, the air quality and GHG impacts associated with this Alternative would be similar as compared to the proposed project.

### Biological Resources

The EIR determined that implementation of the proposed project could result in potential significant adverse effects to special-status plants at both the Centennial and Brunswick Industrial Sites; foothill yellow-legged frog, western pond turtle, California red-legged frog, California black rail, coast horned lizard, special-status bats, and non-special status raptors and migratory birds at both Sites. However, the EIR requires mitigation in order to ensure that impacts related to the aforementioned biological resources would be reduced to less-than-significant levels.

The elimination of the fill pile at the Brunswick site would avoid an additional 15.7 acres of Sierran Mixed Conifer habitat, and approximately 15 acres of currently open/disturbed areas, as compared to the proposed project. The alternative would also preserve 0.34-acre of wetlands (WM-1, WM-2, WM-3 and MA-2) within the southern portion of the Brunswick Site (i.e., where the fill pad would otherwise be located). Given that this Alternative would reduce the above-noted disturbances by eliminating the Brunswick Industrial Site fill pad, the potential adverse effects to some of the aforementioned biological resources (e.g., special-status bats, coast horned lizard, nesting birds) would be reduced, though other impacts would still occur given that their suitable habitat primarily consists of South Fork Wolf Creek and the wet meadow habitat in the western portion of the Site that would be impacted by the proposed project and the Alternative.



The proposed project's biological resources impacts at the Centennial Industrial Site would still occur under this Alternative.

Overall, the biological resources impacts associated with this Alternative would be fewer when compared to the proposed project.

### Cultural and Tribal Cultural Resources

The EIR determined that, at both Sites, implementation of the proposed project could result in a significant but mitigable impact to unknown archaeological resources and Tribal Cultural Resources, as defined in Public Resources Code, Section 21074. The potential for impact to such resources would be reduced, but not eliminated, at the Brunswick Industrial Site under this Alternative. In addition, the EIR determined that the project would have a significant adverse effect on the underground workings of the Idaho-Maryland Mine. However, the EIR requires mitigation in order to ensure that impacts related to cultural resources would be less than significant. The potential impact to the historic underground workings would still occur under this Alternative.

Overall, this Alternative could result in fewer impacts to cultural/tribal cultural resources when compared to the proposed project.

### Geology, Soils, and Mineral Resources

The EIR determined that implementation of the proposed project could result in significant impacts related to the following geology and soils issues at both Sites: soil erosion related to stockpiles, engineered fill slopes, and general site disturbance during construction; presence of undocumented fill; and thin lenses of expansive soils. The above-noted geology and soils impacts at the Brunswick Industrial Site would be reduced, but not eliminated, under this Alternative. It is also noted that the majority of steep slopes (greater than 30 percent) on the Brunswick Industrial Site, which are proposed for grading in the proposed project scenario, are located within the fill pad footprint (see Figure 4.6-5 of the Geology, Soils, and Mineral Resources chapter). Thus, these steep slopes would not be graded by this Alternative. The potential geology and soils impacts that could occur at the Centennial Industrial Site during construction and operational activities would remain with the Alternative, and some may be increased given the substantial increase in the engineered fill pad that would occur at the Centennial Industrial Site (e.g., soil erosion).

Overall, this Alternative could result in fewer impacts to geology and soils when compared to the proposed project.

### Hazards and Hazardous Materials

The EIR did not identify any significant project-related impacts concerning hazards and hazardous materials at the Centennial Industrial Site. This is due to the fact that the Centennial Industrial Site is subject to a separate remediation project. As previously discussed, Rise Grass Valley Inc. has entered into a Voluntary Cleanup Agreement (VCA; Docket No. HSA-FY18/19-014) with the DTSC for the voluntary cleanup of soil contamination on the Centennial Industrial Site.

The EIR determined that significant hazards/hazardous materials impacts would be limited to the Brunswick Industrial Site. For example, potentially significant hazards identified on the Brunswick Industrial Site include elevated arsenic in the southeastern paved area, potential residual petroleum contamination in a few locations, and presence of groundwater monitoring wells of



unknown status. However, the EIR requires mitigation in order to ensure that the aforementioned impacts are reduced to less-than-significant levels.

The EIR also determined that the proposed project could have a significant impact related to transport, underground storage and use of explosives at the Brunswick Industrial Site. With implementation of the mitigation measures in this EIR, the impact would be reduced to a less-than-significant level.

The above-noted project-related impacts associated with construction and operational activities at the Brunswick Industrial Site would also occur as part of this Alternative.

Overall, given that the EIR found significant hazards/hazardous materials impacts would be limited to the Brunswick Industrial Site, and these same significant impacts would occur under this Alternative, the Alternative would have similar impacts related to hazards/hazardous materials when compared to the proposed project.

### Hydrology and Water Quality

The EIR determined that implementation of the proposed project at the Centennial Industrial Site could result in potential construction and operational impacts related to water quality at the Centennial Industrial Site (e.g., engineered fill pad construction); risk release of pollutants in flood hazard area associated with Wolf Creek; and substantial alteration of drainage patterns. These significant project-related effects would still occur with implementation of this Alternative, and for some, could possibly increase due to the placement of substantially more fill.

The following project-related significant effects specific to the Brunswick Industrial Site would still occur under this Alternative: impacts to water quality associated with operations within the industrial area, underground placement of Cement Paste Backfill, use of clay-lined pond for water treatment process purposes, treated water discharge in South Fork Wolf Creek, and substantial reduction in groundwater supplies due to operation of the mine. Similar to the proposed project, the Alternative would be required to implement mitigation in order to ensure that impacts related to hydrology and water quality are reduced to less-than-significant levels.

Elimination of the Brunswick fill pad would reduce, but not eliminate, the project's significant impacts related to substantial alteration of drainage patterns and water quality effects associated with engineered fill pad construction.

Overall, this Alternative could result in similar impacts to hydrology and water quality when compared to the proposed project.

### Noise

The EIR determined that the majority of project-related significant noise and vibration impacts would occur as a result of operations at the Brunswick Industrial Site; these operations would also occur with implementation of this Alternative. For example, the EIR conservatively concludes that the combined operational noise sources at the Brunswick Industrial Site could result in a significant noise impact. With respect to vibration, the EIR determined that while blasting is not projected to exceed applicable thresholds, a ground vibration monitoring program should be implemented to determine the actual levels of ground vibration at commencement of mining, and if necessary, implement additional protective measures. The EIR requires mitigation in order to ensure that the aforementioned impacts are reduced to a less-than-significant level.



Likewise, the significant and unavoidable construction noise impact, which would result from installation of the potable water line along E. Bennett Road, would still occur as part of this Alternative.

One significant project-related impact could be increased in severity with implementation of this Alternative; this is the impact related to potential use of Jake brakes along the haul route connecting the Brunswick and Centennial Industrial Sites. The EIR determined that the proposed project could result in a substantial permanent increase in ambient noise levels in the vicinity of the project due to haul truck traffic should Jake brakes be used. Haul truck traffic from Brunswick to Centennial would potentially increase from 5 years to 11 years as a result of this Alternative.

While equipment noise associated with placement of engineered fill at the Brunswick Industrial Site would not occur due to elimination of the fill pad, the EIR determined that equipment-related noise at the nearest sensitive receptors would be in compliance with the County's noise standards.

Overall, this Alternative could result in slightly greater noise impacts when compared to the proposed project.

### Transportation and Circulation

As discussed in the Transportation and Circulation chapter of the EIR, for the proposed project, the Centennial Industrial Site is expected to be an active site with delivery of engineered fill occurring for a period of approximately five years. This Alternative would potentially increase that time period to 11 years.

As discussed for Alternative 2, the intersection (i.e., level of service conflicts) and queue impacts identified in the EIR would occur at locations that are unaffected by project truck traffic. In other words, the intersection impacts are a result of project employee commute trips. Therefore, while this Alternative would increase the amount of time that haul trucks would use local roads to drive to the Centennial Industrial Site, it would not increase the number or severity of significant intersection/queue impacts caused by the proposed project.

The EIR also determined that proposed project truck traffic to the Centennial Industrial Site would result in pavement impacts on the following roadway segments:

- Brunswick Road northbound between E. Bennett Road and Whispering Pines Lane;
- E. Bennett Road between Project Driveway and Brunswick Road (eastbound)

These pavement impacts would be increased in severity with implementation of this Alternative due to more heavy truck use (estimated to be an additional 6 years).

This alternative would still require widening along the Centennial Industrial Site's frontage for purposes of facilitating adequate truck turn movements into and out of the Site.

Overall, this Alternative could result in slightly greater impacts to transportation when compared to the proposed project.



### Wildfire

The EIR determined that implementation of the proposed project would result in a significant impact related to exacerbating wildfire hazards at both the Centennial and Brunswick Industrial Sites. The EIR requires mitigation in order to ensure that the aforementioned impact is reduced to a less-than-significant level. Elimination of the Brunswick fill pad could reduce the overall potential for wildfire hazards to be exacerbated by reducing the use of equipment in close proximity to vegetation. However, a significant impact, prior to mitigation, would still occur under this Alternative.

Overall, this Alternative could result in fewer impacts related to exacerbating wildfire hazards when compared to the proposed project.

### **Alternative 4: Reduced Throughput – 500 tons per day gold mine**

A reduced throughput alternative would reduce the proposed mine's production of 1,000 tons per day (365,000 tons per year) of gold mineralization to 500 tons per day (182,500 tons per year) of gold mineralization. The underground mining methods and aboveground production methods and facilities would remain substantially similar. Some reductions in equipment type, size, and numbers may occur but it would not result in a substantially different footprint than the proposed project. The life of the mine would be extended from 80 years to between 130-160 years to accommodate reduced daily and annual tonnage and still allow the underground resources to be fully developed. In addition, the proposed engineered fill pads on both the Centennial and Brunswick Industrial Sites would still be constructed, as proposed, but it would take approximately double the amount of time, from 5-6 years to 10-12 years, for each stockpile area to reach the proposed design capacities and elevations.

This alternative may be inconsistent with several policies of the General Plan as identified below:

**Policy 17.9:** Encourage the mining of previously mined land, if such land still contains economically mineable minerals, so the land can be reclaimed for alternative uses.

As discussed above, this alternative delays how quickly the land can be reclaimed to a condition suitable for an "alternative use" of industrial by extending the construction of the industrial pads on both the Centennial and Brunswick Industrial Sites and extending the overall life of the project.

**Policy 17.10:** Consider the socio-economic impacts associated with proposed mining operations.

As discussed below, extending the life of the project affects the economics and ability to finance the project which may impact implementation of this project including the number of jobs, sales, property, and payroll taxes, and land value.

This alternative would fully meet Project Objectives 2 through 6, and 8 through 10. Project Objective 1 would not be met by this alternative. Based on the deposit, project's location and land use constraints, market conditions, and various other factors, the project's proposed 1,000 tons per day production level was identified as an optimum operating level. A substantial reduction in throughput would not meet Project Objective 1 and would change the project's economics and



ability to be financed. This would impact the number of employees hired (Project Objective 7),<sup>3</sup> the speed at which capital improvements could be made, and extend the life of the project. In addition, this would significantly delay rehabilitating the Centennial Industrial Site and increasing the usability of the Brunswick Industrial Site to a future use of industrial.

### Aesthetics

The EIR determined that the placement of substantial engineered fill at the Centennial and Brunswick Industrial Sites would result in a significant and unavoidable impact related to the substantial degradation of the visual character or quality of the site and its surroundings. The proposed industrial mining structures would also contribute to the significant aesthetic impact at the Brunswick Industrial Site. Under the Reduced Throughput Alternative (“Alternative”), the engineered fill pad at either Site would have the same maximum height as proposed by the project; it would just take longer for these heights to be achieved due to reduced throughput at the mine. Similarly, this Alternative would develop the same industrial mining structures at the Brunswick Site. Thus, this Alternative would result in the same significant and unavoidable aesthetic impacts that would be generated by the proposed project.

### Air Quality, Greenhouse Gas Emissions, and Energy

The EIR determined that implementation of the proposed project could result in a conflict with implementation of the applicable air quality plan through generation of construction and operational criteria pollutant emissions that would exceed the NSAQMD’s applicable thresholds. With respect to GHG, the proposed project could result in a significant GHG impact during the construction period. However, the EIR requires mitigation in order to ensure that the aforementioned impacts are reduced to less-than-significant levels.

As discussed above, the proposed mine’s production of 1,000 tons per day (365,000 tons per year) of gold mineralization would be reduced to 500 tons per day (182,500 tons per year) of gold mineralization with this Alternative. The reduction in daily throughput would reduce the level of daily heavy equipment activity related to placement of engineered fill, thus, resulting in reduced air quality emissions over the course of a day.

Reduced throughput would also have the effect of reducing emissions associated with underground mining operations. For example, the operational air quality analysis conducted for the proposed project assumed that ore production through tunneling and long-hole blasting would produce 1,000 tons per day of ore. This Alternative would reduce production by 50 percent, thus, reducing emissions associated with underground mining operations.

As a result of the above factors, this Alternative would result in fewer air quality emissions than the proposed project. However, given the level of emissions that would be generated by the proposed project (see Table 4.3-13 of the Air Quality, Greenhouse Gas Emissions, and Energy Chapter), the emissions generated by this Alternative would still be expected to exceed the District’s thresholds (lbs/day), thus, requiring mitigation similar to that which is required in the EIR.

It is also noted that the reduced throughput would approximately double the amount of time, from 5-6 years to 10-12 years, for each stockpile area to reach the proposed design capacities and elevations, and double the life of the mine from 80 years to approximately 130-160. This means

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<sup>3</sup> Project Objective 7 reads as follows: “Provide jobs that provide a fair living wage for educated and skilled workers.” This objective would be partially met by this alternative, given that it would still create provide jobs that provide a fair living wage.



that emissions associated with use of heavy equipment for placement of engineered fill and underground mining equipment would occur for an extended period of time.

The amount/duration of haul truck use from the Brunswick Industrial Site to the Centennial Industrial Site would be less intense over the course of each day, but would occur for a longer period of time (i.e., approximately 5 years of trucking to Centennial under the proposed project scenario vs. approximately 10-12 years for the Alternative). Similarly, the amount of daily haul trucks transporting engineered fill to the freeway (after Centennial and Brunswick fill pads are completed) would be reduced, but haul trucks would be in use along this route for an extended period of time due to the increased life of the mine. In general, the effects of these characteristics would result in exposing sensitive receptors along the haul routes to a similar amount of diesel particulate matter (DPM), which could translate to similar cancer risks, as compared to the proposed project (note: the EIR determined a less-than-significant DPM-related impact would occur).

The Alternative would disturb a similar amount of ground surface over time, as compared to the proposed project, and thus, could result in similar emissions of asbestos dust related to on-site ground disturbing activities having the potential to expose receptors to substantial concentrations of asbestos. Similar mitigation (e.g., Asbestos Dust Mitigation Plan) would be required for this Alternative to ensure the impact is less than significant.

Overall, the air quality and GHG impacts associated with this Alternative could be fewer as compared to the proposed project.

### Biological Resources

The EIR determined that, at both the Centennial and Brunswick Industrial Sites, implementation of the proposed project could result in potential significant adverse effects to special-status plants, foothill yellow-legged frog, western pond turtle, California red-legged frog, California black rail, coast horned lizard, special-status bats, and non-special status raptors and migratory birds. The proposed project would also result in a significant impact to mapped streams and wetlands. However, the EIR requires mitigation in order to ensure that impacts related to the aforementioned biological resources would be reduced to less-than-significant levels.

Due to the fact that this Alternative would result in the same areal extent of ground surface over time as the proposed project, none of the biological resources impacts resulting from the proposed project would be avoided. Overall, the biological resources impacts associated with this Alternative would be similar when compared to the proposed project.

### Cultural and Tribal Cultural Resources

The EIR determined that, at both Sites, implementation of the proposed project could result in a significant but mitigable impact to unknown archaeological resources and Tribal Cultural Resources, as defined in Public Resources Code, Section 21074. In addition, the EIR determined that the project would have a significant adverse effect on the underground workings of the Idaho-Maryland Mine. However, the EIR requires mitigation in order to ensure that impacts related to cultural resources would be less than significant.

Due to the fact that this Alternative would result in the same areal extent of ground surface over time as the proposed project, the potential for the Alternative to impact archaeological and/or Tribal Cultural Resources would be similar to the proposed project. In addition, because this



Alternative would impact the same extent of underground workings over the life of the mine, as compared to the proposed project, the project's significant but mitigable impact to underground workings would also occur with this Alternative.

Overall, this Alternative could result in similar impacts to cultural/Tribal Cultural Resources when compared to the proposed project.

### Geology, Soils, and Mineral Resources

The EIR determined that implementation of the proposed project could result in significant impacts related to the following geology and soils issues at both Sites: soil erosion related to stockpiles, engineered fill slopes, and general site disturbance during construction; presence of undocumented fill; and thin lenses of expansive soils. The above-noted geology and soils impacts would similarly occur with implementation of this Alternative given that the areal extent subject to disturbance/development would be the same as the proposed project. The EIR also identified geology and soils impacts specific to either the Centennial (e.g., safety concern related to the presence of the South Idaho Shaft) or Brunswick Industrial Site (e.g., slope stability associated with temporary steep cut slopes at the new service shaft collar; unstable portion of the clay-lined pond dam). These significant impacts would still occur under this Alternative, but similar to the proposed project, could be mitigated to a less-than-significant level.

Overall, this Alternative could result in similar impacts to geology and soils when compared to the proposed project.

### Hazards and Hazardous Materials

The EIR did not identify any significant project-related impacts concerning hazards and hazardous materials at the Centennial Industrial Site. This is due to the fact that the Centennial Industrial Site is subject to a separate remediation project. As previously discussed, Rise Grass Valley Inc. has entered into a Voluntary Cleanup Agreement (VCA; Docket No. HSA-FY18/19-014) with the DTSC for the voluntary cleanup of soil contamination on the Centennial Industrial Site.

The EIR determined that significant hazards/hazardous materials impacts would be limited to the Brunswick Industrial Site. For example, potentially significant hazards identified on the Brunswick Industrial Site include elevated arsenic in the southeastern paved area, potential residual petroleum contamination in a few locations, and presence of groundwater monitoring wells of unknown status. However, the EIR requires mitigation in order to ensure that the aforementioned impacts are reduced to less-than-significant levels. The preceding project-related impacts at the Brunswick Site are related to the extent of on-site disturbance/development. Because the areal extent of disturbance would be equivalent over time for the proposed project and this Alternative, the related impacts would be similar.

The EIR also determined that the proposed project could have a significant impact related to transport, underground storage and use of explosives at the Brunswick Industrial Site. With implementation of the mitigation measures in this EIR, the impact would be reduced to a less-than-significant level. Due to reduced throughput, the quantity of explosives that would be transported, and stored and used underground on a daily basis, would also be reduced. This would reduce the explosion hazard risk to the public. However, the risk due to routine transportation, underground storage and use of explosives would be present for an extended period of time due to the life of the mine being extended from 80 years to 130-160 years.



Overall, given that the EIR found a significant impact would occur due to transport, underground storage and use of explosives, and this Alternative would reduce the quantity of explosives that are routinely transported, stored and used underground on the Brunswick Site, this Alternative could result in fewer impacts related to hazards/hazardous materials when compared to the proposed project.

### Hydrology and Water Quality

The EIR determined that implementation of the proposed project at the Centennial Industrial Site could result in potential construction and operational impacts related to water quality at the Centennial Industrial Site (e.g., engineered fill pad construction); risk release of pollutants in flood hazard area associated with Wolf Creek; and substantial alteration of drainage patterns. These significant project-related effects would still occur with implementation of this Alternative, and for the water quality impact related to engineered fill pad construction, this impact could possibly increase due to the extended period of time that placement of fill would occur (approximately 5 years versus 10-12 years).

The following project-related significant effects specific to the Brunswick Industrial Site would still occur under this Alternative: impacts to water quality associated with operations within the industrial area, underground placement of Cement Paste Backfill (CPB), use of clay-lined pond for water treatment process purposes, treated water discharge in South Fork Wolf Creek, and substantial reduction in groundwater supplies due to operation of the mine. These impacts are considered less than significant after implementation of mitigation. This Alternative also has the potential to increase some of these impacts due to the extended life of the mine. For example, the mine would need to remain dewatered for 130-160 years rather than 80 years for the proposed project. Use of the industrial area would be extended over the same time frame, and thus, while on-site operations would be reduced over the course of each day, these operations would occur for much longer, extending the period of time that runoff within the industrial area could come in contact with industrial pollutants. Similarly, discharge of treated water to South Fork Wolf Creek would be extended, as would use of CPB.

Similar to the proposed project, the Alternative would be required to implement mitigation in order to ensure that impacts related to hydrology and water quality are reduced to less-than-significant levels.

Overall, this Alternative could result in greater impacts to hydrology and water quality when compared to the proposed project.

### Noise

The EIR determined that the majority of project-related significant noise and vibration impacts would occur as a result of operations at the Brunswick Industrial Site; these operations would also occur with implementation of this Alternative, though at a reduced intensity and longer overall period of time (80 years vs. 130-160 years) by reducing daily production levels by 50 percent. For example, the EIR conservatively concludes that the combined operational noise sources at the Brunswick Industrial Site could result in a significant noise impact. With respect to vibration, the EIR determined that while blasting is not projected to exceed applicable thresholds, a ground vibration monitoring program should be implemented to determine the actual levels of ground vibration at commencement of mining, and if necessary, implement additional protective measures. The EIR requires mitigation in order to ensure that the aforementioned impacts are reduced to a less-than-significant level.



Likewise, the significant and unavoidable construction noise impact, which would result from installation of the potable water line along E. Bennett Road, would still occur as part of this Alternative.

One significant project-related impact could be increased in severity with implementation of this Alternative; this is the impact related to potential use of Jake brakes along the haul route connecting the Brunswick and Centennial Industrial Sites. The EIR determined that the proposed project could result in a substantial increase in ambient noise levels in the vicinity of the project due to haul truck traffic should Jake brakes be used. Haul truck traffic from Brunswick to Centennial would potentially increase from 5 years to 10-12 years as a result of this Alternative.

Overall, this Alternative could result in slightly greater noise impacts when compared to the proposed project.

### Transportation and Circulation

As discussed for Alternative 2, the intersection (i.e., level of service conflicts) and queue impacts identified in the EIR would occur at locations that are unaffected by project truck traffic. In other words, the intersection impacts are a result of project employee commute trips. This Alternative would reduce the daily throughput at the mine by 50 percent, from 1,000 tons per day to 500 tons per day of gold mineralization. The reduced production levels would reduce the demand for on-site labor. As a result, this Alternative could be expected to support fewer employees, which would reduce commute traffic to/from the Centennial and Brunswick Industrial Sites. Depending upon the level of reduction, this Alternative may avoid one or more of the intersection/queue impacts identified in the EIR for the proposed project.

While vehicle miles travelled (VMT) associated with employee commute would be reduced on a daily basis, the life of the mine would be extended from 50-80 years, which would have the effect of substantially increasing VMT over the life of the mine. This could result in a significant VMT impact.

The EIR also determined that proposed project truck traffic to the Centennial Industrial Site would result in pavement impacts on the following roadway segments:

- Brunswick Road northbound between E. Bennett Road and Whispering Pines Lane;
- E. Bennett Road between Project Driveway and Brunswick Road (eastbound)

These pavement impacts would be similar with implementation of this Alternative due to similar amount of heavy truck use along the haul route from Brunswick to Centennial (i.e., while the haul route would be used for a longer duration, the amount of overall trucks occurring on the route would not increase; rather, the equivalent amount of trucks would be spread out over a longer period of time).

This alternative would still require widening along the Centennial Industrial Site's frontage for purposes of facilitating adequate truck turn movements into and out of the Site.

Overall, this Alternative could result in similar or slightly fewer impacts to transportation when compared to the proposed project.



### Wildfire

The EIR determined that implementation of the proposed project would result in a significant impact related to exacerbating wildfire hazards at both the Centennial and Brunswick Industrial Sites. The EIR requires mitigation in order to ensure that the aforementioned impact is reduced to a less-than-significant level. Reduced throughput could be expected to reduce the use of on-site equipment to some degree, but not enough to substantially reduce wildfire risk, as compared to the proposed project.

Overall, this Alternative could result in similar impacts related to exacerbating wildfire hazards when compared to the proposed project.

## **6.4 ENVIRONMENTALLY SUPERIOR ALTERNATIVE**

An EIR is required to identify the environmentally superior alternative from among the range of reasonable alternatives that are evaluated. The environmentally superior alternative is generally the alternative that would be expected to generate the least amount of significant impacts. Identification of the environmentally superior alternative is an informational procedure and the alternative selected may not be the alternative that best meets the goals or needs of the County. Section 15126(e)(2) of the CEQA Guidelines requires that an environmentally superior alternative be designated and states, “If the environmentally superior alternative is the ‘no project’ alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.”

Based on the preceding alternatives analysis, the No Project (No Build) Alternative would be the environmentally superior alternative. Under this Alternative, the mine would not be operated at the Brunswick Industrial Site, and as a result, engineered fill would not be hauled to the Centennial Industrial Site. In general, no significant project-related impacts to the physical environment would occur under this Alternative. Given that the environmentally superior alternative would be the “no project” alternative, another alternative must be selected to be the environmentally superior alternative. Based on the preceding analysis, and a comparison of the alternatives in Table 6-1, it can be concluded that Alternative 2, Elimination of Centennial Industrial Site, would reduce the greatest number of project impacts. The EIR determined that the proposed project would result in significant environmental impacts to 10 CEQA resource categories/topics. Alternative 2 would reduce the project’s significant environmental impacts in nine of the 10 categories. Alternatives 3 and 4 would not reduce as many impacts, and in two cases, impacts would be greater when compared to the proposed project. For these reasons, Alternative 2 would be considered the environmentally superior alternative. The main objectives of the project would be achieved with this alternative, as follows:

- Construct a commercially viable, financeable, major underground gold mine operation that will produce 1,000 tons per day (365,000 tons per year) of gold mineralization.
- Locate the project on property that Rise Grass Valley, Inc. owns that provides an existing access to the underground workings.
- Utilize existing underground access points to limit new aboveground and underground surface disturbance.
- Locate the facilities necessary to support dewatering, mining, and processing on land historically disturbed and zoned for similar industrial type uses.
- Locate the majority of project facilities within a large property holding to provide buffer areas and minimize the potential for adverse environmental effects on neighboring properties.



- Provide property owners along East Bennett Road, an area currently with no service from the Nevada Irrigation District (NID) and using groundwater from wells, a reliable and clean potable water source from the NID.
- Provide jobs that provide a fair living wage for educated and skilled workers.
- Minimize impacts to wetlands, vernal pools, and other special-status species habitat located on the property and, to the extent feasible, mitigate any such impacts identified.



**Table 6-1  
Comparison of Environmental Impacts for Project Alternatives**

<b>Resource Area</b>	<b>Proposed Project</b>	<b>No Project (No Build) Alternative</b>	<b>Alternative 2: Elimination of Centennial Industrial Site and Expansion of Brunswick Fill Pile</b>	<b>Alternative 3: Expansion of Centennial Engineered Fill Pile and Elimination of Brunswick Engineered Fill Pile</b>	<b>Alternative 4: Reduced Throughput</b>
Aesthetics	Significant and Unavoidable	None	Fewer*	Similar or (Slightly) Fewer*	Similar
Air Quality, Greenhouse Gas Emissions, and Energy	Less-Than-Significant with Mitigation	None	Fewer	Similar	Fewer
Biological Resources	Less-Than-Significant with Mitigation	None	Fewer	Fewer	Similar
Cultural and Tribal Cultural Resources	Less-Than-Significant with Mitigation	None	Fewer	Fewer	Similar
Geology, Soils, and Mineral Resources	Less-Than-Significant with Mitigation	Fewer	Fewer	Fewer	Similar
Hazards and Hazardous Materials	Less-Than-Significant with Mitigation	Fewer	Similar	Similar	Fewer
Hydrology and Water Quality	Less-Than-Significant with Mitigation	None	Fewer	Similar	Greater
Noise and Vibration	Less-Than-Significant with Mitigation <u>and</u> Significant and Unavoidable	None	Fewer*	(Slightly) Greater*	(Slightly) Greater*
Transportation	Less-Than-Significant with Mitigation <u>and</u> Significant and Unavoidable	None	Fewer*	(Slightly) Greater*	Similar or (Slightly) Fewer*
Wildfire	Less-Than-Significant with Mitigation	Fewer	Fewer	Fewer	Similar
<b>Total Fewer (or None):</b>		<b>10</b>	<b>9</b>	<b>4</b>	<b>2</b>
<b>Total Similar:</b>		<b>0</b>	<b>1</b>	<b>4</b>	<b>6</b>
<b>Total Greater:</b>		<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>

Note: No Impact = "None"; Less than Proposed Project = "Fewer"; Similar to Proposed Project = "Similar"; Greater than the Proposed Project = "Greater"

\* Significant and Unavoidable impact(s) determined for the proposed project would still be expected to occur under the Alternative.

