

## 4.7. HAZARDS AND HAZARDOUS MATERIALS

### 4.7.1 INTRODUCTION

The Hazards and Hazardous Materials chapter of the EIR describes existing and potentially occurring hazards and hazardous materials within the proposed project area. The chapter includes a discussion of potential impacts posed by such hazards to the environment. In addition, surrounding land uses are discussed in order to provide an assessment of whether the project could impact surrounding land uses.

The Hazards and Hazardous Materials chapter is primarily based on information drawn from a Phase I Environmental Site Assessment (ESA) prepared by ECM Consultants for the Centennial and Brunswick Industrial Sites (see Appendix I),<sup>1</sup> a Phase I/II ESA prepared by NV5 for the Brunswick Industrial Site (see Appendix J),<sup>2</sup> as well as information drawn from the Preliminary Endangerment Assessment<sup>3</sup> for the Centennial Industrial Site, the Nevada County General Plan,<sup>4</sup> and the Nevada County General Plan EIR.<sup>5</sup>

### 4.7.2 EXISTING ENVIRONMENTAL SETTING

The following section includes a definition of hazardous materials and descriptions of the conditions associated with the project sites related to hazards and hazardous materials. As discussed in Section 1.3, "Approach To Centennial Industrial Site Baseline," of this EIR, for the purposes of this hazards analysis, the environmental baseline for the Centennial Industrial Site has been adjusted to be consistent with anticipated site conditions at the completion of the separate Centennial Industrial Site Clean-up Project.

#### **Hazardous Materials**

The term hazardous substance refers to both hazardous materials and hazardous wastes. A material is defined as hazardous if the material appears on a list of hazardous materials prepared by a federal, State, or local regulatory agency or if the material has characteristics defined as hazardous by such an agency. The California Environmental Protection Agency (CalEPA), California Department of Toxic Substances Control (DTSC) defines hazardous waste, as found in the California Health and Safety Code Section 25141(b), as follows:

[...] its quantity, concentration, or physical, chemical, or infectious characteristics: (1) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; (2) pose a substantial present or potential hazard to human health or the environment, due to factors including, but not limited to, carcinogenicity, acute toxicity, chronic toxicity, bioaccumulative properties, or persistence

<sup>1</sup> ECM Consultants. *Phase I Environmental Site Assessment Idaho-Maryland Mine: Centennial and Brunswick Sites Grass Valley, Nevada County, California*. August 21, 2020.

<sup>2</sup> NV5. *Phase I/II Environmental Site Assessment Brunswick Industrial Site, APNs 006-441-003, -004, -005, -034 and 009-630-037, -039, Grass Valley, California*. June 16, 2020.

<sup>3</sup> NV5. *Final Preliminary Endangerment Assessment Centennial M-1 Property, 10344 Centennial Drive, Nevada County, California*. June 12, 2020.

<sup>4</sup> Nevada County. *Nevada County General Plan*. Updated 2014.

<sup>5</sup> Nevada County. *Nevada County General Plan, Final Environmental Impact Report*. March 1995.



in the environment, when improperly treated, stored, transported, or disposed of, or otherwise managed.

The following discussion focuses on the potential Recognized Environmental Conditions (RECs) associated with the project sites. A REC indicates the presence or likely presence of any hazardous substances in, on, or at a property due to any release into the environment, under conditions indicative of a release to the environment, or under conditions that pose a material threat of a future release to the environment.<sup>6</sup>

Additionally, the following section includes a discussion of historical RECs (HRECs) associated with the project sites. A HREC indicates a past release of hazardous substances or petroleum products that has occurred in connection with a property and has been addressed to the satisfaction of the applicable regulatory authority. A HREC does not have any property use restrictions, and, thus, does not have any use limitations with respect to future activities on the property. The following discussion also includes controlled RECs (CRECs) associated with the project sites. A CREC is a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls.

### **Project Area Conditions**

The project sites contain the historic Idaho-Maryland Mine underground gold mine. The mine has been inactive since closure in 1956, and was inactive for several periods during the 1866 to 1956 production period. The Idaho-Maryland Mine encompasses an extensive system of approximately 73 miles of underground tunnels, many raises, four inclined shafts, and two vertical shafts. The historic mining operation had extensive surface infrastructure adjacent to the Centennial Industrial Site and at the Brunswick Industrial Site, most of which has been dismantled and removed. Additionally, a sawmill operated on the Brunswick Industrial Site, including lumber storage and a recycling pond. Several shaft entrances are located on the Brunswick Industrial Site, including the Brunswick and Union Hill shafts; however, the shafts are covered to prevent inadvertent access. Other portions of the site include graveled or paved areas from previous land uses.

Due to the historic industrial and mining operations on the project sites, the project sites appear on a number of lists of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

The project sites are surrounded by undeveloped land, industrial, low-density residential developments, and commercial uses. Existing land uses surrounding the Centennial Industrial Site include commercial uses and the City of Grass Valley limits to the north, west, and east, and industrial uses to the north, south, and east. Existing land uses surrounding the Brunswick Industrial Site include rural residences to the north, west, south, and east; industrial uses to the north; undeveloped land to the west and south, and South Fork Wolf Creek to the west.

Further details of the existing conditions, as they pertain to hazards and hazardous materials, at the Centennial and Brunswick Industrial Sites are provided separately below.

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<sup>6</sup> ASTM International. *ASTM E1527, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. 2013.



## Centennial Industrial Site Conditions

The Centennial Industrial Site was historically used by the Idaho-Maryland Mine to deposit mine tailings and waste rock. Mining or milling structures are not associated with the site. A 20-stamp mill was erected near the main Idaho Shaft (east of the Centennial Industrial Site) circa 1920. Crushed ore from the mill was treated with mercury for gold recovery. The resulting sand slurry (mercury-treated tailings) were deposited in an unlined gully along the eastern Centennial Industrial Site boundary, referred to as the Eastern Tailings Pond. A ball mill was constructed near the stamp mill in 1936, and cyanide was used to recover gold from the crushed ore. The cyanide was reportedly recovered in a scrubber system and reused. The resulting sand slurry (cyanide-treated tailings) were deposited in an unlined pond with mine waste rock berms in the northwestern portion of the site, adjacent to Wolf Creek. The newer, cyanide-treated tailings pond is referred to as the Western Tailings Pond.

Extensive site investigation, overseen by DTSC, has identified mill tailings, waste rock, and affected soil at the site that contain lead, arsenic, mercury and other metals at concentrations exceeding background soil metals concentrations and regulatory benchmark concentrations. Elevated soil metals concentrations present a potential human health risk resulting from routine, long-term exposures, as well as ecological concerns in terms of impacts to plant and animal species. As a result, under existing conditions, the majority of the Centennial Industrial Site cannot be developed due to unstable soils and/or contamination.

As discussed in the Introduction chapter of this EIR, the project applicant has entered into a Voluntary Cleanup Agreement (VCA) with the DTSC for the voluntary cleanup of soil contamination on the Centennial Industrial Site. A Remedial Action Plan (RAP) has been prepared and describes the proposed procedures for conducting remedial activities needed to meet Remedial Action Objectives (RAO's). The RAOs are intended to specify contaminants and media of concern, potential exposure pathways, and remediation goals for commercial/industrial land use. The remediation goals are acceptable exposure levels that are protective of human health and the environment and do not conflict with applicable, relevant and appropriate requirements (ARARs) under federal and state environmental law. The remedial action that has been selected by DTSC is known as "Stabilization and On-Site Placement Under Land Use Controls". Generally, the remedial action is intended to reduce the potential for routine contact with soil having elevated metals concentrations, and to reduce the potential for leaching and erosion, by excavation, consolidation on-site at a designated location, capping with clean engineered fill, and establishment of land use controls. At locations of remedial excavation, post-excavation sampling and analysis are required to verify that the underlying materials meet clean-up goals and are acceptable for the intended land use (commercial and industrial).

More specifically, the remedial action includes excavation of soils within the former eastern and western tailing ponds and on-site consolidation of contaminated materials, as well as stabilization of contaminated materials within a small hot spot area by cement treatment prior to on-site consolidation. Stabilization includes mixing Portland cement with hot spot contaminated soils in the designated consolidation area to prevent potential water quality impacts. Other contaminated soils from the former tailing ponds that do not pose potential water quality impacts will be placed within the consolidation area as engineered fill without cement treatment. The 5.6-acre consolidation area would be located along the eastern boundary of the Centennial Industrial Site and capped with four feet of clean engineered soil, with the end result being an engineered fill pad.



The excavation areas would be backfilled and regraded with clean fill to promote drainage, and erosion controls will be installed. The engineered fill pad would be graded so that runoff would drain away from the fill slope into surface and subsurface drainage controls. Following completion of excavation, stabilization, and placement activities, disturbed areas will be hydroseeded or broadcast seeded with an erosion-control native seed mix to reduce erosion and maintain fill slope stability.

As previously mentioned, due to the anticipated Centennial Industrial Site Clean-Up Project that would be completed prior to and separately from the proposed project's use of the Centennial Industrial Site for engineered fill placement, this EIR does not use the existing condition at the site for the environmental baseline and instead uses an environmental baseline that reflects the anticipated condition for the Centennial Industrial Site following implementation of the RAP. Accordingly, the baseline condition for the Centennial Industrial Site consists of a 5.6-acre engineered fill pad along its eastern boundary, up to approximately 28 acres of graded, revegetated areas, and the remainder consisting of natural habitats, such as montane hardwood-conifer, chaparral, montane-riparian, and annual grassland. Accordingly, potential RECs associated with the Centennial Industrial Site do not exist under the adjusted baseline condition.

### **Brunswick Industrial Site Conditions**

Former mining activities (predominantly lode gold mining) at the Brunswick Industrial Site included the Union Hill Mine and the Brunswick Mine. The Union Hill Mine was established circa 1854. An ore mill and hoist were constructed in 1865. Johnston (1939) maps the Union Hill Mine in the westernmost portion of the northern end of the subject property, and an inclined shaft at this location dipping to the southwest. The mine was reportedly operated until approximately 1870 to a maximum depth of approximately 300 feet below ground surface (bgs). The mine was reportedly reopened in 1900 and operated until 1911, extending the shaft to 600 feet bgs. The mine was again reopened in 1914 and operated until 1918. During this period, the shaft was extended to 800 feet bgs, tungsten-containing scheelite was also mined, and a new hoist, air compressor, Cornish pump driven by a 12-foot Pelton wheel, and a 20-stamp mill were installed. Following its closure, the 20-stamp mill was moved offsite to another mine. The Union Hill Mine was not reopened. Several small structures were historically associated with the Union Hill Mine operations.

The Brunswick Mine was established circa 1909. Johnston (1939) maps the Brunswick Vertical Shaft in the eastern portion of the northern end of the property, near the existing reinforced-concrete silo that remains at the site today. A railroad spur was added, extending from the existing East Bennett Road to the mine. In 1910, the mine was reportedly closed due to an inflow of water at a depth of approximately 443 feet bgs. The mine reportedly reopened in 1915, and water was drained with pumps via a cross-cut from the old Brunswick Mine. Johnston (1939) maps the portal of the Brunswick Inclined Shaft (associated with the old Brunswick Mine) approximately 1,000 feet north of the subject property, dipping towards the southwest. A new steel head frame, 20-stamp mill, and a cyanide plant were reportedly constructed at the Brunswick Mine on the subject property. The mine closed again in 1918, by which time the shaft extended to 1,200 feet bgs. Several corrugated metal buildings were present at the mine, including an office, assay office, hoist house, mill building, carpenter shop, drying furnace building, blacksmith and machine shop, garage, transformer house, powder magazine, and store house. The mine reopened in 1922 when the shaft was again dewatered, and operated until 1927. Idaho-Maryland Mining Corporation reportedly acquired the Brunswick Mine and began dewatering the mine in 1933. The shaft was extended to 3,300 feet bgs, and a Marcy mill and a regrind mill were reportedly installed. The



mine did not operate during World War II but reopened after the war and continued operating until 1956. Structures have been removed from the site since that time. In 1997 the remaining concrete foundations were removed except for one reinforced concrete silo (ore bin) and the shaft collar.

In addition to the historic mining operations associated with the Brunswick Industrial Site, lumber milling was performed at the central and southeastern portions of the site in the late 1950s to early 2000s. The lumber milling facility was referred to as the Grass Valley Saw Mill, Bohemia Saw Mill, and Sierra Pacific Mill. Features associated with the sawmill activities included a main sawmill building, two sorter buildings (one constructed in 1987), an office building, transformer, slot feeder, conveyors, timber racks and log storage areas. Recycle ponds were used to collect and recycle surface water runoff for irrigation of logs. Prior to 1984, pesticides were used to treat wood. All structures associated with the sawmill have been demolished. A clay-lined pond and significant paved areas remain from the sawmill operation.

The Brunswick Industrial Site currently consists primarily of undeveloped land, with remnants of the previous gold mining and sawmill operations still located on-site. The terrain of the undeveloped portion of the Brunswick Industrial Site is typical of the lower Sierra Nevada foothills, varying between flat ridges and valleys to gently and moderately sloping hillsides. The Brunswick Industrial Site is located adjacent to South Fork Wolf Creek and is dominated by mixed hardwood-conifer forests and developed areas, with smaller areas of wetlands and annual grassland.

The existing potential hazards associated with the Brunswick Industrial Site identified in the Phase I ESA prepared by ECM Consultants and Phase I/II ESA prepared by NV5 are described in further detail below.

### On-Site Recognized Environmental Conditions

The Phase I ESA prepared by ECM Consultants and Phase I/II ESA prepared by NV5 identified the following potential RECs associated with the Brunswick Industrial Site. Figure 4.7-1 presents the location of the identified RECs and soil sampling locations.

#### *Elevated Metals Concentrations in On-site Soils*

Previous environmental investigations have identified metals concentrations on the Brunswick Industrial Site that exceed regulatory criteria, primarily arsenic. While mine waste rock and soil fill contain elevated levels of arsenic, the elevated concentrations may be a result of natural occurrences. Mine waste rock and tailings are present near the Brunswick Mine location and the fill placed to the south of that location. Additionally, the former Union Hill Mine and off-site mining claims near the northwestern site boundary have several piles of associated waste rock located northwest of the inclined shaft.

NV5 performed a Phase II investigation on April 16 and 17, 2020, including excavation of 36 exploratory trenches, collection of mine waste and soil samples, and laboratory analysis for metals. Figure 4.7-1 shows the location and depth of mine waste fill according to the subsurface investigation conducted by NV5. The mine waste was commonly mixed with soil. Geotextile fabric was observed at some locations between mine waste and underlying native soil, and sometimes within the mine waste fill. As shown in the figure, the mine waste fill was generally less than five feet deep, except at a location south of the Brunswick Mine shaft and in the vicinity of exploratory trench locations T11, T14, and T30 identified in Figure 4.7-1, where the depth of mine waste fill exceeded 10 feet.



**Figure 4.7-1  
 Brunswick Industrial Site RECs and Soil Sampling Locations**



Source: NV5, 2020.



Arsenic concentrations detected in mine waste samples were relatively low except for the mixed soil and rock fill beneath a five-acre paved area near the Brunswick Road entrance, within approximately 300 feet southwest of Brunswick Road, as depicted in Figure 4.7-1, which contained total and soluble arsenic concentrations that exceeded regulatory benchmarks (i.e., the total threshold limit concentration [TTLC] for arsenic of 500 milligrams per kilogram [mg/kg]). The highest arsenic concentrations in the southeastern paved area were detected in mixed soil and rock fill at locations T18 (2,150 mg/kg), T23 (1,540 mg/kg), and T14 (765 mg/kg). Mine waste fill at T14 was greater than 10 feet deep, whereas fill depth at other locations generally ranged from 2.0 to 5.5 feet.

Total concentrations of metals other than arsenic were not detected at concentrations exceeding the applicable screening levels. Because previous environmental investigations identified mine tailings with acid generating potential, samples collected by NV5 were analyzed for acid base accounting (ABA) as well. Based on the ABA analysis, samples obtained were generally net acid-neutralizing. In addition, samples were tested for asbestos and significant concentrations of asbestos were not detected.

Based on the higher arsenic concentrations and anomalous ABA results, the geotextile fabric incorporated into the fill, and historical aerial photographs that suggest the grading was performed after mining operations were suspended, the material beneath the southeastern paved area was likely imported to the site and did not originate from mining operations at the Brunswick Mine shaft.

At locations other than the southeastern paved area, total arsenic was not detected at concentrations that would classify the soil as hazardous waste.

### *Historic Storage and Use of Petroleum Products*

Past industrial operations on the Brunswick Industrial Site included the storage and use of petroleum products. According to previous environmental reporting by AC Industrial Cleaning in 1992, three areas had excavations associated with petroleum contaminated soils, which are identified as Areas A, B, and C and are shown in Figure 4.7-1. In Area A, AC Industrial Cleaning removed a buried electrical transformer and contaminated soil from a location west of the recycling pond. The excavation sidewalls contain impacted soil according to the summary report. The remaining contaminated soils are assumed to be present on-site. In Area B, AC Industrial Cleaning removed contaminated soil from the location of a former surface oil spill within an alleged drum disposal area. The summary report indicates that the contamination was removed based on the results of verification sampling and analysis. The excavation extents were verified clean by wall sampling and laboratory analysis. In Area C, AC Industrial Cleaning removed contaminated soil from a former disposal area. The summary report indicates that the contamination was removed based on the results of verification sampling and analysis.

Documentation or record of closure for the cleanup of Areas A, B, or C were not found during research conducted for the Phase I ESA prepared by ECM Consultants and Phase I/II ESA prepared by NV5. However, due to the results of verification sampling and analysis, Areas B and C would likely be considered HRECs provided that regulatory closure documentation is found or the existing records are subjected to regulatory review for confirmation of closure.

Fuel underground storage tanks (USTs) were historically present at the site. The Historical UST database lists the Brunswick Sawmill as previously containing a 1,000-gallon gasoline UST



installed in 1977, a 12,000-gallon diesel UST installed in 1977, and a 1,000-gallon UST with an unreported installation date. However, investigation reports or other information tying the USTs to a closure status or determination were not encountered during research conducted for the Phase I ESA prepared by ECM Consultants and Phase I/II ESA prepared by NV5. Similar to the cleanup of Areas B and C, the USTs would likely be considered HRECs provided that regulatory closure records are found.

### Historical Recognized Environmental Conditions

The State Water Resources Control Board (SWRCB) Spills, Leaks, Investigations and Cleanups (SLIC) database indicates that the Regional Water Quality Control Board (RWQCB) issued a case closure for a past release of petroleum products at the former Grass Valley Saw Mill on December 19, 2006. Although details of the release and cleanup were not available for review, the case appears to be an HREC based on the regulatory case closure determination.

Prior to 1984, milling operations at the former saw mill included treating wood with pesticides. Wood was dipped into a pesticide solution and transported over an area of bare soil by a conveyor (referred to as the “green chain”) to a slot feeder. Pentachlorophenol (PCP) and tetrachlorophenol were active ingredients in the pesticide solution. Records research indicated that the former sawmill site was a PCP and tetrachlorophenol contaminated site. This was based in large part on analysis conducted by Emcon Associates, retained by mill operator Bohemia, Inc. Initial investigations performed in 1986 included excavating five test pits and advancing two borings in the “green chain” area (see Figure 4.7-1). Soil samples collected were analyzed for the presence of PCP and tetrachlorophenol. Based on the results of the investigation, the RWQCB requested additional investigation to further evaluate contamination in the green chain area, and to investigate groundwater quality downgradient of the green chain area. In 1987, Emcon performed additional investigations which included collecting 16 surface soil samples and collecting discrete-depth soil samples from five borings in the green chain area, installing six groundwater monitoring wells, and collecting groundwater samples to evaluate groundwater quality.

The results of analysis of surface soil samples identified PCP and tetrachlorophenol as high as 42,000 and 53,000 micrograms per kilogram ( $\mu\text{g}/\text{kg}$ ), respectively. In groundwater, PCP and tetrachlorophenol were detected in two monitoring wells in the green chain area at concentrations as high as 3.3 and 3.9 micrograms per liter ( $\mu\text{g}/\text{L}$ ), respectively. Emcon reported that these groundwater concentrations were below applicable cleanup levels. Emcon performed an evaluation of remedial alternatives, and concluded that treatment of soil was the preferred alternative.

Emcon performed remediation of contaminated soil at the Grass Valley Lumber Mill in 1989 in accordance with a remediation plan developed in coordination with regulatory agencies. Documentation suggests that 375 cubic yards of contaminated soil was excavated, with confirmation samples collected and analyzed to confirm that soil above the PCP remediation goal had been removed. Case closure was issued by the RWQCB for the impacted soils within the green chain area. A covenant was placed on the property to address residual groundwater contamination as described below under CRECs.

### Controlled Recognized Environmental Conditions

Based on the results of groundwater monitoring, a No Further Action letter was issued by the RWQCB on December 16, 2006, which determined that all volatile organic compounds (VOCs) remaining in groundwater do not pose a risk to human health, the environment or waters of the



State, and that remaining VOCs show a downward trend and should reach nondetectable concentrations by 2015. A Land Use Covenant with the Nevada County Assessor's Office was filed affecting the Brunswick Industrial Site, and proof of monitoring well destruction was submitted. The Land Use Covenant was established to restrict groundwater use based on remaining groundwater contamination at concentrations above the Maximum Contaminant Level (MCL) for drinking water. It should be noted that an evaluation of inhalation risk to human health from residual VOC in the groundwater was performed and the results indicated that an associated significant threat to human health from vapor migration to indoor air did not exist. The Covenant states that if, after any four consecutive quarters of any year within the term of the Covenant, groundwater samples collected from the site indicate levels of VOC below the MCL, then the Covenant shall terminate with written concurrence from the RWQCB. If the Covenant is rescinded in the future, then the condition could be considered an HREC rather than a CREC.

### Other Potential Environmental Concerns

The following additional potential environmental concerns were identified for the Brunswick Industrial Site:

- **Monitoring Wells:** A number of monitoring wells were observed to be present around the site; however, the location, status, and total number of remaining wells is not definitively known. For example, three monitoring wells were observed present around the property. One monitoring well is located on the southeastern portion of the property and is a stovepipe type well. It is secured with a lock; therefore, the integrity of the well cannot be confirmed at this time. Another monitoring well is located in the central portion of the property, west of the former sawmill. The well is flush mount with a PVC cap that could not be removed during the site visit. Another unnamed and undocumented well was found in the south-central portion of the property, southeast of the hillside irrigation pipelines. Existing monitoring wells on the site present conduits to groundwater.
- **Former Transformers or Above-Ground Storage Tanks (ASTs):** Previous investigations regarding former transformers or ASTs were not found as part of the Phase I ESA prepared by ECM Consultants or Phase I/II ESA prepared by NV5. An AST saddle foundation and underground piping are located near the eastern site boundary; however, the former transformer and AST appear to have been removed.
- **Undocumented Soil Fill:** Undocumented soil fill is present on the site, including deep fill located in the upper, eastern portion of the site, near the intersection of Brunswick Road; stockpiles of wood chips in the southern portion of the site near the Brunswick Road site entrance; and soil fill associated with the terraced area on the southwestern side of the former lumber operations area.
- **Historic Storage of Chemicals:** Records indicate that chemicals were historically stored at the Brunswick Mine. A warehouse inventory circa 1940 listed gasoline, butane, aviation fuels, kerosene, motor oils, drilling oils, bituminous road oil, copper sulfate, cresylic acid, cyanide, quicksilver mercury, zinc dust, and sulfuric acid.
- **Mining Features:** Two mine shafts at the Brunswick Mine and the former Union Hill Mine are covered with steel plates and secured with a lock. Unsecured mine shafts would be a physical hazard; however, adequate steps have been taken to secure the openings. A depression at the southwestern portion of the site is indicative of a shaft, as water coalesces at the location but does not appear to surface flow away. The depression is next to concrete foundations, metal cables, drill pipe, and an old timber. Adjacent to the exploratory shaft is what appears to be a potential waste rock area. The suspected shaft or pit of unknown designation or condition may present a physical hazard if unstable.



- **Undocumented Drums:** Drums near the exploratory drilling core boxes are located north of the silos in the former mine building area and southeast of the silos on the eastern edge of the paved area. The drums were marked with environmental investigation labels indicating non-hazardous material or wastes. Contents and disposition of the materials in the drums could not be determined during site assessment.
- **Refrigerators:** Two refrigerators were observed in the northeastern portion of the site east of the mine ore silos. The refrigerators were primarily intact but missing doors. The refrigerators are of potential concern due to the unknown status of possible mercury thermometers. Leaking or stains were not observed around the refrigerators, which would indicate any fluid loss or the rupture of mercury thermometers.

### **Nearest Airports**

The closest public use airport to the project site is the Nevada County Air Park, a small aircraft airport, located east of Brunswick Road and north of Loma Rica Drive, less than one mile (approximately 4,000 feet) from the Brunswick Industrial Site. The Foothill Airport Land Use Commission (ALUC) prepared a Comprehensive Land Use Plan for the airport and designates airport safety areas adjacent to the Nevada County Air Park. A portion of the Brunswick Industrial Site appears to be located within Safety Area 5, the Airport Overflight Zone. According to the Nevada County General Plan EIR, land uses that could create hazards related to airport operations at the Nevada County Air Park include objects that exceed Federal Aviation Regulations Part 77 height standards, attract large concentrations of birds within approach/departure sectors, produce smoke, flash or reflect light, or generate electronic interference.

### **Emergency Response and Evacuation**

Nevada County has prepared a Nevada Operational Area (OA) Evacuation Annex to the County Emergency Operations Plan, the purpose of which is to provide mass evacuation strategies for the OA's response to emergencies that involve the evacuation of people from an impacted area.

The Nevada OA uses the following guidance for evacuation orders and has adopted the following:

- **Evacuation Order** - Requires the immediate movement of people out of an affected area due to an imminent threat to life. Choosing to stay could result in loss of life. Staying may also impede the work of emergency personnel. Due to the changing nature of the emergency, this Evacuation Order may be the only warning that people in the affected area(s) receive.
- **Evacuation Warning** - Alerts people in an affected area(s) of potential threat to life and property. People who need additional time should consider evacuating at this time. An Evacuation Warning considers the probability that an area will be affected and prepares people for a potential Evacuation Order.
- **Shelter-In-Place** - Advises people to stay secure at their current location by remaining in place as evacuation will cause a higher potential for loss of life.

If an Evacuation Order is given, law enforcement personnel will not use force to remove persons who choose to remain in the affected area. Penal Code Section 409.5 does not authorize forcible evacuations, but rather authorizes officers to refuse admittance of others into the impacted area. Possible exceptions can be made for adults who will not evacuate minors from immediately dangerous environments; the children can be removed under child endangerment laws.



In the Nevada OA, an evacuation order can be given by the following:

- The Nevada County Sheriff, and/or designee
- The Local Government Chief of Police, and/or designee
- Local Incident Commander

With respect to determining an evacuation area, the current approach is typically through the incident command system, whereby an incident command center is set up at a strategic location to assess and respond to the emergency incident. For example, in the event of a wildfire, fire agencies will set up an incident command center, from which the fire agencies will notify the Sheriff's Office. The Sheriff's Office will confer with the fire agencies at the incident command center to determine the evacuation area based upon certain critical factors. While this is the current approach, it is noted that the Nevada County Office of Emergency Services (OES) recently entered into contract with Zone Haven, a company that works from a zone-based approach to emergency evacuation.<sup>7</sup> In general, geographic zones are developed based on topography, population, traffic routes, etc. The Greenhorn Road area would likely have several zones because it is a relatively large area. The new system should be up and running within a year.<sup>8</sup>

The Nevada County OES uses the Code Red Mass Communication System to notify residents of evacuation orders, but individuals need to create an account to receive notifications. Notifications are disseminated through land lines and cell phones. In addition, through its Code Red vendor, OES can use the Wireless Emergency Alert System to send out notifications through cell phones, but this depends on cell coverage. A third backup OES can use is the Emergency Alert System (EAS), which will display an emergency alert banner across TV screens, and broadcast the alert on AM/FM radio.

Law Enforcement will be the primary agency for managing the evacuation of people in the field. In addition to the above-described notification systems, the Sheriff's Office will send out deputies to evacuation areas to broadcast an emergency siren, known as a Hi-Lo System, from their patrol vehicles, which are appropriately equipped. Deputies, and if requested, City police officers, will patrol through the neighborhoods that need to evacuate and broadcast the siren with an accompanying public address (PA) system to instruct people to evacuate.

Staging areas may be established to coordinate and receive incoming evacuation transportation resources. The appropriate emergency operations center (EOC) or designated staging area manager will be responsible for coordinating these resources with incoming support agencies and departments.

Primary evacuation routes in Nevada County consist of the major interstates, highways, and principal arterials identified on the Nevada County General Plan Land Use Map. The routes designated on the General Plan Land Use Maps as minor arterial or major collector routes shall be considered secondary evacuation routes on a Countywide basis. These routes supplement the primary evacuation routes, and provide egress from local neighborhood and communities.

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<sup>7</sup> Personal communication between Lieutenant Robert Jakobs, Emergency Operations Coordinator, Office of Emergency Services, Nevada County Sheriff's Office, and Nick Pappani, Vice President, Raney Planning & Management, Inc., January 5, 2021.

<sup>8</sup> *Ibid.*



### 4.7.3 REGULATORY CONTEXT

The following discussion contains a summary of regulatory controls pertaining to hazardous substances, including federal, State, and local laws and ordinances.

#### **Federal Regulations**

Federal agencies that regulate hazardous materials include the U.S. Environmental Protection Agency (USEPA), the Occupational Safety and Health Administration (OSHA), the Department of Transportation (DOT), and the National Institute of Health (NIH). Prior to August 1992, the principal agency at the federal level regulating the generation, transport, and disposal of hazardous waste was the USEPA under the authority of the Resource Conservation and Recovery Act (RCRA). As of August 1, 1992, however, the California DTSC was authorized to implement the State's hazardous waste management program for the USEPA. The USEPA continues to regulate hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA). The following federal laws and related regulations govern hazardous materials.

#### **Occupational Safety and Health Act**

Congress passed the Occupational and Safety Health Act (29 U.S.C. Section 651 et seq. [1970]) to ensure worker and workplace safety. Their goal was to make sure employers provide their workers a place of employment free from recognized hazards to safety and health, such as exposure to toxic chemicals, excessive noise levels, mechanical dangers, heat or cold stress, or unsanitary conditions. In order to establish standards for workplace health and safety, the Act also created the National Institute for Occupational Safety and Health (NIOSH) as the research institution for OSHA. OSHA is a division of the U.S. Department of Labor that oversees the administration of the Act and enforces standards in all 50 states. OSHA requires 40 hours of training for hazardous materials operators, as well as an annual eight-hour refresher course, which includes training regarding personal safety, hazardous materials storage and handling, and emergency response.

OSHA includes regulations for surface transportation of explosives, with which the project would be required to comply. Pursuant to Code of Federal Regulations (CFR) Section 1926.902:

- (a) Transportation of explosives shall meet the provisions of Department of Transportation regulations contained in 46 CFR parts 146-149, Water Carriers; 49 CFR parts 171-179, Highways and Railways; 49 CFR part 195, Pipelines; and 49 CFR parts 390-397, Motor Carriers.
- (b) Motor vehicles or conveyances transporting explosives shall only be driven by, and be in the charge of, a licensed driver who is physically fit. He shall be familiar with the local, State, and Federal regulation governing the transportation of explosives.
- (c) No person shall smoke, or carry matches or any other flame-producing device, nor shall firearms or loaded cartridges be carried while in or near a motor vehicle or conveyance transporting explosives.
- (d) Explosives, blasting agents, and blasting supplies shall not be transported with other materials or cargoes. Blasting caps (including electric) shall not be transported in the same vehicle with other explosives.
- (e) Vehicles used for transporting explosives shall be strong enough to carry the load without difficulty, and shall be in good mechanical condition.
- (f) When explosives are transported by a vehicle with an open body, a Class II magazine or original manufacturer's container shall be securely mounted on the bed to contain the cargo.
- (g) All vehicles used for the transportation of explosives shall have tight floors and any exposed spark-producing metal on the inside of the body shall be covered with wood, or other nonsparking material, to prevent contact with containers of explosives.



- (h) Every motor vehicle or conveyance used for transporting explosives shall be marked or placarded on both sides, the front, and the rear with the word "Explosives" in red letters, not less than 4 inches in height, on white background. In addition to such marking or placarding, the motor vehicle or conveyance may display, in such a manner that it will be readily visible from all directions, a red flag 18 inches by 30 inches, with the word "Explosives" painted, stamped, or sewed thereon, in white letters, at least 6 inches in height.
- (i) Each vehicle used for transportation of explosives shall be equipped with a fully charged fire extinguisher, in good condition. An Underwriters Laboratory-approved extinguisher of not less than 10-ABC rating will meet the minimum requirement. The driver shall be trained in the use of the extinguisher on his vehicle.
- (j) Motor vehicles or conveyances carrying explosives, blasting agents, or blasting supplies, shall not be taken inside a garage or shop for repairs or servicing.
- (k) No motor vehicle transporting explosives shall be left unattended.

### **Title 30, Code of Federal Regulations (Mine Safety and Health Administration)**

The Mine Safety and Health Administration (MSHA) is responsible for enforcing the Federal Mine Safety and Health Act of 1977 (Mine Act) as amended by the MINER Act of 2006. The Mine Act gives the Secretary of Labor authority to develop, promulgate, and revise health or safety standards for the protection of life and prevention of injuries in the nation's mines. These standards are set forth in Title 30 of the CFR. Health and safety standards for underground mines enforced by MSHA include but are not limited to, fire prevention and control, air quality (underground exposure limits for airborne contaminants), explosives (transportation, storage, use), machinery, materials storage and handling, etc.

Section 103(a) of the Act requires a minimum of four inspections a year for underground mines and a minimum of two inspections a year for surface mines.

### **Comprehensive Environmental Response, Compensation, and Liability Act**

The CERCLA (42 U.S.C. Section 9601 et seq. [1980]) provides a federal "Superfund" to clean up uncontrolled or abandoned hazardous-waste sites as well as accidents, spills, and other emergency releases of pollutants and contaminants into the environment. Through CERCLA, the USEPA was given power to seek out those parties responsible for any release and assure their cooperation in the cleanup. The USEPA cleans up orphan sites when potentially responsible parties cannot be identified or located, or when they fail to act. Through various enforcement tools, USEPA obtains private party cleanup through orders, consent decrees, and other small party settlements. The USEPA also recovers costs from financially viable individuals and companies once a response action has been completed. The USEPA is authorized to implement the Act in all 50 states and U.S. territories.

### **Superfund Amendments and Reauthorization Act of 1986**

The Superfund Amendments and Reauthorization Act (SARA) of 1986, (Title III; Section 305(a)) reauthorized CERCLA to continue cleanup activities around the country. Several site-specific amendments, definitions clarifications, and technical requirements were added to the legislation, including additional enforcement authorities. In addition, Title III of SARA authorized the Emergency Planning and Community Right-to-Know Act (EPCRA). SARA, Title III provides funding for training in emergency planning, preparedness, mitigation, response, and recovery capabilities associated with hazardous chemicals. Title III of SARA addresses concerns about emergency preparedness for hazardous chemicals, and emphasizes helping communities meet



their responsibilities in preparing to handle chemical emergencies and increasing public knowledge and access to information on hazardous chemicals present in their communities.

### **Resource Conservation and Recovery Act**

The RCRA (42 U.S.C. Section 6901 et seq. [1976]) gives USEPA the authority to control hazardous waste from the "cradle-to-grave," which includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled USEPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. The federal Hazardous and Solid Waste Amendments (HSWA) are the 1984 amendments to RCRA that focused on waste minimization and phasing out land disposal of hazardous waste as well as corrective action for releases. Some of the other mandates of this law include increased enforcement authority for USEPA, more stringent hazardous waste management standards, and a comprehensive UST program. States have the authority to implement individual hazardous waste programs in lieu of the RCRA as long as the state program is as stringent as federal RCRA requirements and is approved by the USEPA.

### **Toxic Substances Control Act**

The Toxic Substances Control Act (TSCA) of 1976 (15 U.S.C. §2601 et seq. [1976]) provides USEPA with authority to require reporting, record-keeping and testing requirements, and restrictions relating to chemical substances and/or mixtures. Certain substances are generally excluded from TSCA, including, among others, food, drugs, cosmetics, and pesticides. TSCA addresses the production, importation, use, and disposal of specific chemicals including polychlorinated biphenyls (PCBs), asbestos, radon, and lead-based paint.

### **U.S. Department of Transportation**

Transportation of hazardous materials is regulated by the DOT's Office of Hazardous Materials Safety. The office formulates, issues, and revises hazardous materials regulations under the Federal Hazardous Materials Transportation Law. The hazardous materials regulations cover hazardous materials definitions and classifications, hazard communications, shipper and carrier operations, training and security requirements, and packaging and container specifications. The hazardous materials transportation regulations are codified in 49 CFR Parts 100–185.

The hazardous materials transportation regulations require carriers transporting hazardous materials to receive required training in the handling and transportation of hazardous materials. Training requirements include pre-trip safety inspections, use of vehicle controls and equipment including emergency equipment, procedures for safe operation of the transport vehicle, training on the properties of the hazardous material being transported, and loading and unloading procedures. All drivers must possess a commercial driver's license as required by 49 CFR Part 383. Vehicles transporting hazardous materials must be properly placarded. In addition, the carrier is responsible for the safe unloading of hazardous materials at the site, and operators must follow specific procedures during unloading to minimize the potential for an accidental release of hazardous materials.

### **Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF)**

Commerce in explosives, including licensing and permitting, business operations, record keeping, and storage is regulated by ATF in accordance with 27 CFR Part 555.



## **Asbestos Hazard Emergency Response Act**

The 1986 Asbestos Hazard Emergency Response Act (AHERA) was signed into law as Title II of the TSCA, requiring the Asbestos Model Accreditation Plan (MAP) for accrediting individuals conducting asbestos inspection and corrective-action activities in schools and public and commercial buildings. The MAP provides guidance on the minimum training requirements for accrediting asbestos professionals such as, procedural entry, exit, sampling, and monitoring, safety hazards, and relevant federal, state, and local regulatory standards.

## **State Regulations**

The CalEPA and the SWRCB establish rules governing the use of hazardous materials and the management of hazardous waste. Within CalEPA, DTSC has primary regulatory responsibility, with delegation of enforcement to local jurisdictions that enter into agreements with the State agency, for the management of hazardous materials and the generation, transport, and disposal of hazardous waste under the authority of the Hazardous Waste Control Law (HWCL). The following discussion contains the applicable State laws.

## **Regional Water Quality Control Board**

The CalEPA and the OES establish regulations governing the use of hazardous materials in California. Within CalEPA, DTSC has primary regulatory responsibility for hazardous waste management. Enforcement of regulations can be delegated to local jurisdictions that enter into agreements with DTSC for the generation, transport, and disposal of hazardous materials under the authority of the HWCL. Along with the DTSC, the RWQCB is responsible for implementing regulations pertaining to management of soil and groundwater investigation and cleanup. The RWQCB's regulations are contained in Title 27 of the California Code of Regulations (CCR). The DTSC, RWQCB, and/or a local agency typically oversees investigation and cleanup of contaminated sites.

## **Department of Toxic Substances Control**

The DTSC was established to protect California against threats to public health and degradation to the environment and to restore properties degraded by past environmental contamination. Through statutory mandates, DTSC cleans up existing contamination, regulates management of hazardous wastes, and prevents pollution by working with businesses to reduce hazardous waste and use of toxic materials in California. DTSC regulates the generation, transportation, treatment, storage, and disposal of hazardous waste in California. In addition, DTSC's Site Mitigation and Brownfields Reuse Program oversees the cleanup of State Superfund Sites. State Superfund sites are additionally known as Annual Workplan sites, listed sites, or Cortese List sites. Superfund sites demonstrate evidence of a hazardous substance release or releases that could pose a significant threat to public health and/or the environment. DTSC requires responsible parties to cleanup such sites. When responsible parties cannot be found or where they do not take proper and timely action, DTSC may use State funds to undertake the cleanup.

## **Cortese List**

Pursuant to Government Code Section 65962.5(a), the DTSC shall compile and update as appropriate, but at least annually, and shall submit to the Secretary for Environmental Protection, a list of all of the following:

1. All hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code.



2. All land designated as hazardous waste property or border zone property pursuant to former Article 11 (commencing with Section 25220) of Chapter 6.5 of Division 20 of the Health and Safety Code.
3. All information received by the DTSC pursuant to Section 25242 of the Health and Safety Code on hazardous waste disposals on public land.
4. All sites listed pursuant to Section 25356 of the Health and Safety Code.

### **California Code of Regulations**

Hazardous waste is characterized and defined in CCR, Title 22, Sections 66261.20-24. Soils that meet the descriptions of the characteristics of hazardous waste defined in Sections 66261.20-24 and contain contaminants above regulatory screening levels are considered hazardous waste and must be handled and disposed of as such. The CCR includes the California Health and Safety Code.

### California Health and Safety Code

The handling and storage of hazardous materials is regulated on the federal level by the USEPA under CERCLA as amended by the SARA. Under SARA Title III, a nationwide emergency planning and response program was established that imposed reporting requirements for businesses which store, handle, or produce significant quantities of hazardous or acutely toxic substances as defined under federal laws. SARA Title III required each state to implement a comprehensive system to inform federal authorities, local agencies, and the public when a significant quantity of hazardous, acutely toxic substances are stored or handled at a facility.

The California OES regulates a wide range of acutely hazardous materials (AHMs) under the California Accidental Release Program (CalARP), the USEPA under the Risk Management Program (40 CFR 68), and the OSHA under the Process Safety Management Program (OSHA 1910.119). The California Accidental Release Program and Risk Management Program require that all facilities that store, handle, or use AHMs above a minimum quantity, known as the threshold planning quantity, are required to develop a plan and prepare supporting documentation that summarizes the facility's potential risk to the local community and identifies safety measures to reduce potential risks to the public.

The HWCL, Chapter 6.5 of the California Health and Safety Code, is administered by the CalEPA to regulate hazardous wastes. While the HWCL is generally more stringent than RCRA, until the USEPA approves the California program, both the State and federal laws apply in California. The HWCL lists 791 chemicals and about 300 common materials that may be hazardous; establishes criteria for identifying, packaging, and labeling hazardous wastes; prescribes management controls; establishes permit requirements for treatment, storage, disposal and transportation; and identifies some wastes that cannot be disposed of in landfills.

The handling and storage of hazardous materials is regulated by Chapter 6.95 of the California Health and Safety Code. Under Sections 25500–25543.3, facilities handling hazardous materials are required to prepare a Hazardous Materials Business Plan. The plan provides information to the local emergency response agency regarding the types and quantities of hazardous materials stored at a facility, and provides detailed emergency planning and response procedures in the event of a hazardous materials release. In the event that a facility stores quantities of specific acutely hazardous materials above the thresholds set forth by the California code, facilities are also required to prepare a Risk Management Plan and California Accidental Release Plan, which



provides information on the potential impact zone of a worst-case release, and requires plans and programs designed to minimize the probability of a release and mitigate potential impacts.

### **Emergency Response to Hazardous Materials Incidents**

California has developed an emergency response plan to coordinate emergency services provided by federal, state, and local governments and private agencies. Response to hazardous material incidents is one part of this plan. The plan is managed by the Governor's OES, which coordinates the responses of other agencies, including CalEPA, California Highway Patrol (CHP), California Department of Fish and Wildlife (CDFW), and Central Valley RWQCB.

### **Local Regulations**

Relevant goals and policies from the Nevada County General Plan and various other local guidelines and regulations related to hazards and hazardous materials are discussed below.

### **Nevada County General Plan**

The following goals and policies from the Nevada County General Plan are applicable to the proposed project:

Goal EP-10.1 Provide a coordinated approach to hazard and disaster response preparedness.

Policy EP-10.1.1 Ensure a coordinated, interagency program for disaster preparedness that will facilitate Federal and State disaster assistance by planning for the reduction of the effects of natural hazards and training for disaster management.

Policy EP-10.1.4 Provide for adequate evacuation routes in areas of high fire hazard, high potential for dam failure, earthquake, seiches, avalanche, flooding or other natural disaster.

Policy EP-10.1.6 Transportation routes that are designated on the General Plan Land Use Maps as interstates, freeways, highways, and other principal arterial routes shall be considered primary evacuation routes on a Countywide basis. Such routes provide the highest levels of capacity and contiguity and serve as the primary means for egress from the County.

The routes designated on the General Plan Land Use Maps as minor arterial or major collector routes shall be considered secondary evacuation routes on a Countywide basis. These routes supplement the primary evacuation routes, and provide egress from local neighborhood and communities.

Policy EP-10.1.8 Support the development and maintenance of Countywide and local emergency evacuation plans.

Goal HM-10.5 Protect public health, safety, natural resources, and property through regulation of use, storage, transport, and disposal of hazardous materials.



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|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Policy HM-10.5.1 | Provide means for the identification, safe use, storage, transport, and disposal of hazardous materials, including household hazardous waste.                                                                                                                                                                                                                                                                                                                                                                                    |
| Policy HM-10.5.4 | The County will encourage the cleanup of sites contaminated by mine wastes or other hazardous materials.                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Policy HM-10.5.5 | The County will actively promote prompt clean-up or remediation of properties contaminated by mine waste or other hazardous materials and shall not grant any discretionary or ministerial land use approvals to develop or change boundaries or reconfigure parcels believed to be contaminated, unless and until the nature, extent, type and location of the contamination is determined and satisfactory arrangements are made for clean-up or remediation, in accordance with Nevada County standards or State regulations. |

### **Nevada County Environmental Health Department**

The Nevada County Environmental Health Department (NCEHD) is the Certified Unified Program Agency (CUPA) for local implementation of the California Accidental Release Prevention Program and several other hazardous materials and hazardous waste programs. NCEHD is responsible for programs focused on environmental protection and public health in Nevada County such as programs that regulate food preparation in restaurants, installation of wells and septic systems, handling hazardous materials, and other topics related to consumer protection. The NCEHD is responsible for implementing the hazardous materials program, including regulating hazardous materials business plans and chemical inventory, hazardous materials storage, hazardous materials management plans, and risk management plans. The hazardous materials business plan program requires businesses in Nevada County to prepare plans detailing facility information, a hazardous materials inventory, and an emergency response plan if hazardous materials storage equals or exceeds minimum reportable quantities, which are: 55 gallons of a hazardous liquid; 500 pounds of a hazardous solid; or 200 cubic feet of a compressed gas. The NCEHD provides access to the information in the hazardous materials business plans to emergency response agencies, including fire and police.

### **Nevada County Emergency Operations Plan**

The Nevada County Emergency Operation Plan (EOP) delineates responsibilities of first responders (fire and law) and other response support organizations, e.g., Department of Public Works, Environmental Health, etc. for natural disasters and manmade emergency incidents in Nevada County. The EOP is intended to mitigate future disasters and emergency incidents.

The EOP includes a Mass Evacuation Annex (Annex B) that establishes County, city and other agency responsibilities and the concept of operation for support of a mass vehicular evacuation moving within or through the County that has been caused by a disaster or incident occurring outside of Nevada County. A new Nevada OA Evacuation Annex (2020) has been drafted and is set to go to the Board of Supervisors for approval. The purpose of this OA Evacuation Annex is to provide mass evacuation strategies for the OA's response to emergencies that involve the evacuation of people from an impacted area. This involves coordination and support for the safe and effective evacuation of the population, including people with disabilities and access and



functional needs, whom may need additional support to evacuate. Focus areas within the evacuation annex include public alert and warning, transportation, and evacuation terminology.

The Annex was developed as a functional support document to the Nevada County EOP, and is consistent with the Standardized Emergency Management System (SEMS) and the National Incident Management System (NIMS). It is coordinated with the State's emergency plan, compliant with the recommendations from the Comprehensive Preparedness Guidance (CPG) 101 v. 2.0 and is applicable to all locations and to all agencies, organizations, and personnel with evacuation and evacuation support function responsibilities within the Nevada OA.

#### **4.7.4 IMPACTS AND MITIGATION MEASURES**

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The following section describes the standards of significance and methodology used to analyze and determine the proposed project's potential impacts related to hazards and hazardous materials. A discussion of the project's impacts, as well as mitigation measures where necessary, is also presented.

##### **Standards of Significance**

In accordance with CEQA Guidelines Appendix G, an impact is considered significant if the proposed project would:

- Create a significant hazard to the public or the environment through the routine handling, transport, use, or disposal of hazardous materials;
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment;
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area;
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; and/or
- Expose people or structures, either directly or indirectly, to the risk of loss, injury or death involving wildland fires.

The proposed project is not located within one-quarter mile of an existing or proposed school. Thus, the proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school, and impacts related to such are not discussed further in this EIR.

Impacts related to wildland fires are addressed in detail in Chapter 4.13, Wildfire, of this EIR. Thus, further discussion related to exposure of people or structures, either directly or indirectly, to the risk of loss, injury or death involving wildland fires is not discussed in further detail in this chapter.



## **Method of Analysis**

The following sections describe the methods of analysis used to determine the presence of RECs associated with the proposed project.

### **ECM Consultants Phase I ESA**

The overall purpose of the Phase I ESA was to provide Nevada County with knowledge of the full range of environmental issues and liabilities associated with the project sites and satisfy requirements of American Society for Testing and Materials (ASTM) Standard E1527-13, the CERCLA, and Innocent Landowners, Standards for Conducting All Appropriate Inquiries (40 CFR part 312). The primary objective of the ESA is to identify, describe, and document conditions indicative of releases and threatened releases of hazardous substances on, at, in, or to the subject property.

The evaluation of the project sites was based on information derived from the following sources in general accordance with guidelines set forth in ASTM Practice E1527-13:

- Interviews with past and present owners, operators, and occupants, as available.
- Examination of aspects of the historical background and operating history of the sites based upon interviews, review of aerial photographs, and other available historical documents.
- Examination of existing information regarding the sites' hydrogeological, geological, and topographical characteristics.
- Performance of a physical site inspection to observe existing conditions, business activities, and operations on the subject sites and adjoining properties. Site reconnaissance was conducted by ECM on June 9 and June 12, 2020.
- Review of federal, State, County, tribal, and local agency records/databases, as deemed appropriate by ECM, pertaining to the sites and other selected properties within the approximate minimum search distance of the sites.

For further details regarding the methodology and results of the Phase I ESA prepared by ECM Consultants for the Centennial and Brunswick Industrial Sites, please see Appendix I to this EIR.

### **NV5 Phase I/II ESA**

NV5 performed a Phase I ESA for the Brunswick Industrial Site. The purpose of the Phase I ESA was to evaluate whether evidence of RECs exist that may have impacted or could potentially impact the site. The Phase I ESA was performed in general accordance with the ASTM E1527-13. The following tasks were performed as part of the Phase I ESA:

- Historical records such as aerial photographs, Sanborn Fire Insurance maps, historical topographic maps, city directories, and other readily-available historical sources were evaluated, as available, to research the history of the site and vicinity.
- Federal, State, and local environmental databases were reviewed to identify sites that use, store, or have released hazardous materials. The database search was performed by Environmental Data Resources, Inc. (EDR), an environmental database research firm. The EDR database report (presented as Appendix A to the Phase I/II ESA, which is included as Appendix J to this EIR) provides federal and State information intended to meet ASTM guidelines for Phase I ESAs. Regulatory files were reviewed for the identified sites, subject to the limitations of the ASTM guidance document.



- Readily available reports concerning previous environmental investigations at the site were reviewed.
- A surface reconnaissance of the site and surrounding area visible from the site boundary was performed. NV5 performed the site reconnaissance on February 27, 2020. The reconnaissance was performed on foot. The ground surface was not practically accessible in some densely forested portions of the site.
- Persons with knowledge of the site were interviewed.
- The Phase I/II ESA report was prepared describing the findings of the Phase I ESA.

In addition to the Phase I ESA, NV5 performed a Phase II investigation on April 16 and 17, 2020 to further characterize the nature and extent of mine waste on the property. The Phase II investigation included excavation of 36 exploratory trenches, collection of mine waste and soil samples, and laboratory analysis for metals. The exploratory trenches were excavated to depths up to 10 feet bgs using a Hyundai 80CR-9A track-mounted excavator. The exploratory trench locations are depicted on Figure 4.7-1.

NV5 obtained 68 samples from the 36 exploratory trenches. The samples were collected as grab samples (independent, discrete samples) using new, single-use plastic scoops. Samples were placed in laboratory-supplied, resealable plastic bags and were homogenized in the bag by shaking and kneading. New nitrile gloves were donned at each sample location and whenever the cleanliness or integrity of the gloves were compromised.

Samples were delivered by mail under chain-of-custody documentation to ACZ Laboratories, Inc. of Steamboat Springs, Colorado. The 68 samples were analyzed for total arsenic (EPA Method 6010B). A subset of eight samples was analyzed for total concentrations of Title 22 (CAM 17) metals (EPA Methods 6010/7471) and Acid Base Accounting (ABA; Modified Sobek).

For further details regarding the methodology and results of the Phase I/II ESA prepared by NV5 for the Brunswick Industrial Site, please see Appendix J to this EIR.

### **Centennial Preliminary Endangerment Assessment**

NV5 prepared a Preliminary Endangerment Assessment (PEA) for the Centennial Industrial Site, pursuant to a VCA (Docket No. HSA-FY18/19-014) between Rise Grass Valley Inc. and the California DTSC.

The general purpose of the PEA is to investigate environmental conditions and to address potential health risks associated with the disposal of mine waste at the site from historical hard rock gold mining and ore processing on adjacent property.

The PEA included supplemental site investigation (including 48 near-surface soil samples), review of community demographics, compilation and validation of previous investigation data, delineation of assessment areas and statistical evaluation, human and ecological risk assessment (in accordance with DTSC risk assessment guidance), sensitive receptor survey and water quality evaluation.

### **Project-Specific Impacts and Mitigation Measures**

The following discussion of impacts related to hazards and hazardous materials is based on implementation of the proposed project in comparison to the environmental baseline and the standards of significance presented above.



**4.7-1 Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Based on the analysis below, with implementation of mitigation, the impact related to transportation, storage and use of hazardous materials is considered *less than significant*.**

A significant hazard to the public or the environment could result from the routine transport, use, or disposal of hazardous materials. Projects that involve the routine transport, use, or disposal of hazardous materials are typically industrial in nature. The proposed project would be an industrial activity and would involve reinitiating underground mining and gold mineralization processing for the Idaho-Maryland Mine over an 80-year permit period. The proposed project could create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, specifically related to construction activities, explosives, and use and storage of various chemicals. Each of the aforementioned potential hazards are discussed in further detail below.

Construction Activities

Construction activities associated with implementation of the proposed project, including the proposed off-site improvements (e.g., East Bennett Road potable water pipeline), would involve the use of heavy equipment, which would contain fuels and oils, and various other products such as concrete, paints, and adhesives. The project contractor would be required to comply with all California Health and Safety Code and local County ordinances regulating the handling, storage, and transportation of hazardous and toxic materials.

As discussed in Chapter 4.6, Geology, Soils, and Mineral Resources, compliance with the SWRCB general permit to discharge storm water associated with construction activity is required. The general permit is known as the SWRCB, Order No. 2009-0009-DWQ (as amended by Orders 2010-0014-DWQ and 2012-006-DWQ), NPDES General Permit No. CAS000002, Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction Activity (Construction General Permit). The project applicant would be required to submit a Notice of Intent (NOI) for coverage under the Construction General Permit and prepare a construction Stormwater Pollution Prevention Plan (SWPPP).

The SWPPP must include procedures that effectively address hazardous and non-hazardous spills. In addition, as part of the SWPPP, a spill response and implementation element shall be developed prior to commencement of construction activities. The SWPPP shall require that:

- Equipment and materials for cleanup of spills shall be available on site and that spills and leaks shall be cleaned up immediately and disposed of properly; and
- Appropriate spill response personnel are assigned and trained.



In addition, pursuant to California Health and Safety Code Section 25510(a), except as provided in subdivision (b),<sup>9</sup> the handler or an employee, authorized representative, agent, or designee of a handler, shall, upon discovery, immediately report any release or threatened release of a hazardous material to the unified program agency (in the case of the proposed project, NCEHD) in accordance with the regulations adopted pursuant to Section 25510(a). The handler or an employee, authorized representative, agent, or designee of the handler shall provide all State, city, or county fire or public health or safety personnel and emergency response personnel with access to the handler's facilities. In the case of the proposed project, the contractors are required to notify the NCEHD in the event of an accidental release of a hazardous material, who would then monitor the conditions and completion of remediation measures.

### Explosives

As with the majority of hard-rock mines, the proposed project would involve the use of explosives to fragment mineralized rock so that the rock can be transported to the shaft and then to the surface for processing.

For transportation purposes, explosives are classified by DOT in accordance with 49 CFR and under these regulations all explosives are listed as Hazard Class 1 materials. The project proposes to use explosives classified as Division 1.1, 1.4, and 1.5 materials. Explosives to be used would include ammonia nitrate fuel oil (ANFO) and packaged or bulk emulsion explosives. The majority of explosives used would be ANFO, which is classified as Hazard Class division 1.5. Explosives proposed to be used by the project would be in Compatibility Groups B or D and would require separate transportation in accordance with regulations in 49 CFR 173.52. Compatibility group letters are used to specify the controls for the transportation, and storage related thereto, of explosives and to prevent an increase in hazard that might result if certain types of explosives were stored or transported together (49 CFR 173.52(a)).

Table 4.7-1 displays the proposed explosives to be used at the project with their hazard class and compatibility group, which are further described following the table.

<b>Table 4.7-1 Explosives Proposed to be Used at Project</b>			
<b>Explosive type</b>	<b>Product Examples</b>	<b>Hazard Class</b>	<b>Compatibility Group</b>
Detonators (shock tube or electronic)	Digishot, Driftshot, NONEL EZ, NONEL LP, i-kon, Exel Handidet	1.1B or 1.4B	B
Detonating Cord	Primacord, B-Line	1.1D	D
Emulsion Explosives	Dyno AP, DynoSplit AP, Magnafrac, Xactex	1.1D	D
ANFO	Dynamix, AMEX	1.5D	D

<sup>9</sup> Subdivision (a) does not apply to a person engaged in the transportation of a hazardous material on a highway that is subject to, and in compliance with, the requirements of Sections 2453 and 23112.5 of the Vehicle Code.



***Division 1.1 [49 CFR Section 173.50(b)(1)]***

Explosives that have a mass explosion hazard. A mass explosion is one which affects the entire load instantaneously. Typical examples: dynamite, detonator (cap) sensitive emulsions, slurries, water gels, cast boosters, and mass detonating detonators.

***Division 1.4 [49 CFR Section 173.50(b)(4)]***

Explosives that present a minor explosion hazard. The explosive effects are largely confined to the package and no projection of fragments of appreciable size or range is to be expected. An external fire must not cause virtually instantaneous explosion of almost the entire contents of the package. Typical examples: safety fuse and certain electric, electronic, and nonelectric detonators.

***Division 1.5 [49 CFR Section 173.50(b)(5)]***

Explosives that are very insensitive. This division is comprised of substances which have a mass explosion hazard but are so insensitive that there is very little probability of initiation or of transition from burning to detonation under normal conditions of transport. Typical examples: blasting agents, ANFO, non-cap sensitive emulsions, blends, slurries, water gels, and other explosives that require a booster for initiation.

***Compatibility Group B [49 CFR Section 173.52, Table 1]***

Article containing a primary explosive substance and not containing two or more effective protective features. Some articles, such as detonators for blasting, detonator assemblies for blasting and primers, cap-type, are included, even though they do not contain primary explosives.

***Compatibility Group D [49 CFR Section 173.52, Table 1]***

Secondary detonating explosive substance or black powder or article containing a secondary detonating explosive substance, in each case without means of initiation and without a propelling charge, or article containing a primary explosive substance and containing two or more effective protective features.

During operations, explosives would be transported to the Brunswick Industrial Site a maximum of once a week and a minimum of once every three weeks. During initial underground construction, explosives may be transported to the site more frequently.

Explosives would not be transported with other hazardous materials in accordance with 49 CFR 177.848 and Group B explosives (detonators) would not be transported with Group D explosives in accordance with 49 CFR 173.52, Table 1.

Hauling of explosives would occur using Brunswick Road to State Routes (SR) 20/49. Explosives would be transported directly to the site by licensed explosive suppliers that possess the requisite permits, including a CHP hazardous materials transportation license and U.S. DOT hazardous materials permits. State Routes 20 and 49 are designated as explosive transport routes by the CHP<sup>10</sup>. Additionally, the explosives supplier would be required to have a sufficient insurance policy. The suppliers would transport explosives to the site via semi-trucks driven by licensed drivers. The semi-

<sup>10</sup> See Map 6 of California Highway Patrol, *HPH 84.3 Explosive Material Shipments: Routes, Safe Stopping Places, and Safe Parking Places*. May 2021.



trucks would be conspicuously labeled, as is required by 29 CFR Section 1926.902, subdivisions (f) through (i). The suppliers would take all proper federally mandated precautions while transporting explosives, including driving on designated explosive routes, and would inspect tires at the beginning of each trip and each time the vehicle stops (49 CFR 397.17). In addition, in compliance with federal regulations, the explosives and detonators would be separated during transportation to ensure the explosives are not detonated during travel (29 CFR 1926.902, subd. (d)). Numerous additional regulations are in place to ensure safety in the transport of explosives<sup>11</sup> and a summary of these are provided below in Table 4.7-2. All companies and individuals transporting explosives to the site would be required to comply with those additional regulations provided in Table 4.7-2.

<b>Subject</b>	<b>Regulation</b>
Vehicle Operator Qualifications	49 CFR 391
Vehicle Operator Training	49 CFR 392.7, 396.13, 396.11, 392.60, 392.9
Vehicle Operator Fitness	49 CFR 382 / 391, 390.5
Transportation Equipment	49 CFR 393
Shipping Papers	49 CFR 172, Subpart C
Placarding	49 CFR 172, Subpart F
Inspections	49 CFR 396
Loading and Unloading	49 CFR 177, Subpart B
Explosives Segregation	49 CFR 177.848
Driver Record of Duty Status	49 CFR 395
Accidents with Vehicles and Shipments in Transit	49 CFR 177, Subpart D
Accident reporting	49 CFR 171.15, 171.16, Part 390, Subpart B
Emergency Response Information	49 CFR 172, Subpart G
Parking	49 CFR 397.7
Vehicle Attendance	49 CFR 397.5
Routes	49 CFR 397.67 (d)
Vehicle Markings	49 CFR 390.21
Railroad Crossings	49 CFR 392.10
Driver Rules	49 CFR 397.19
Insurance	49 CFR 387
Controlled Substance Testing	49 CFR, Subpart B
Training	49 CFR 172, Subpart H
Registration	49 CFR 107, Subpart G
Hazardous Material Safety Permit	49 CFR, Parts 385,386, and 390

The transportation of explosives in the United States has an excellent safety record. A review of DOT incident reports for highway transportation of class 1.1B, 1.4B, 1.1D, and 1.5D materials shows 149 incidents over the past 30 years in the United States. The majority of these incidents were vehicle accidents resulting in no release or

<sup>11</sup> Institute of Makers of Explosives. *SLP 14: Handbook for the Transportation and Distribution of Explosive Materials*. March 2019.



spillages. No fatalities were reported in any incidents and only 1 incident resulted in injuries<sup>12</sup>.

Upon delivery to the project site, explosives and detonators would be immediately transported underground to designated storage facilities and placed in separate magazines pursuant to federal OSHA and MSHA regulations, including 29 CFR 1926.904, subdivision (b) and 30 CFR 57.6102, and California regulations, including Title 8 CCR 5251, subdivision (a). The materials would not be stored above ground. The project would use approximately 0.93 tons of explosives and approximately 257 detonators per day to facilitate mining operations. According to the Hazardous Material Inventory Statement for the Brunswick Industrial Site, a maximum of 28,000 pounds of explosives would be stored underground at any given time. Pursuant to MSHA regulations, detonators and explosives shall be stored in separate magazines made of noncombustible material with proper ventilation to control dampness and excessive heating within the magazine. MSHA also requires the magazines to be locked when unattended, and must be identified with warning signs or codes indicating the contents with markings visible from any approach. Further, MSHA (30 CFR 57.6160) requires that facilities storing detonators shall be separated at least 25 feet from other storage facilities containing explosive material, and OSHA (29 CFR 1926.904) requires that permanent underground magazines containing detonators be located 50 feet or more from any magazine containing explosives. The project would comply with the more restrictive 50-foot distance required in the OSHA regulations. The underground storage facilities would be located in an area of the underground mine suitable for such storage use, and would consist of wooden, box-type containers equipped with covers or doors, or facilities constructed or mined-out to provide equivalent impact resistance and confinement, consistent with the composition of auxiliary facilities provided in 30 CFR 57.6161, subdivision (a). The storage facilities would be located in such a way so as to ensure that escape routes are not obstructed, and would be located a safe distance from underground workings, tunneling and construction operations, shafts, electrical wiring, combustible rubbish and facilities storing detonators, as is required by 29 CFR 1926.904, 30 CFR 57.6160 and 8 CCR 5258. Further, explosives would be stored in a manner to facilitate use of the oldest stocks first and to facilitate identification of brands and grades, and stacked in a stable manner no more than 8 feet in height, as is required by 30 CFR 57.6102.

A permanent underground explosive storage facility will require the completion of the Service Shaft, to provide two modes of exit from the mine, in accordance with 29 CFR 1926.904(d). Therefore, until the Service Shaft construction is completed, deliveries would be made to the Brunswick Shaft and would be limited to the quantity of explosives needed for less than one week's use during construction. Explosives would be immediately transported underground once delivered to the site. Temporary auxiliary facilities used to store explosives near underground workplaces will be in compliance with 30 CFR 57.6161 and will be wooden box type containers equipped with covers or doors, or facilities constructed or mined-out, to provide equivalent impact resistance and confinement. Once the Service Shaft is completed in approximately six months from start of construction, and permanent underground

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<sup>12</sup> United States Department of Transportation, Pipeline and Hazardous Materials Safety Administration. *Incident Statistics*. Available at: <https://www.phmsa.dot.gov/hazmat-program-management-data-and-statistics/data-operations/incident-statistics>. Accessed December 2021.



magazines are constructed, deliveries of explosives would be made to the Service Shaft location, and the storage of such explosives would comply with the requirements provided in 30 CFR 57.6160. Explosive's transportation in hoist conveyances and vehicles underground is governed by safety regulations described in 30 CFR 57.6204 and 57.6202.

Permanent underground explosives magazines would be located underground at locations dependent on the mining areas in production throughout the life of the mine. Generally, there would be larger magazines on main production levels such as the 1300 ft, 2300 ft, and 3280 ft levels and smaller magazines in more remote workings areas, as necessary. The larger magazines will be stored in main facilities and would be subject to regulation pursuant to 30 CFR 57.6160, and smaller magazines located in more remote working areas would be stored in auxiliary facilities and would be subject to regulation pursuant to 30 CFR 57.6161. The location of each magazine and its maximum storage capacity would be planned by the engineering department in conjunction with a risk assessment performed by a qualified professional. The risk assessment would include compliance with all criteria of 30 CFR 57.6160, 30 CFR 57.6161, 29 CFR 1926.904, and 27 CFR part 55. Compliance with 30 CFR 57.6160(a)(2) requires that an accidental explosion in the storage facilities will not prevent escape from the mine or cause the detonation of the contents of another storage facility. Therefore, the risk assessment would ensure that the maximum quantity of explosives stored and the distance from the shaft conveyance and headframe would not damage these facilities in the highly unlikely event of a magazine detonation. The protection of the mine facilities and headframes from blast waves would therefore also protect on or offsite buildings located on the surface and the public from hazards of explosives storage. Blast waves propagate significantly further through underground tunnels than on surface<sup>13</sup>. Therefore, it is likely that locations of underground magazines, determined through the risk assessment, would be located further by connecting tunnels and shafts from surface than the distances specified in the American Table of Distances (ATD). It is worth noting that no fatalities or serious injuries have ever occurred within the distances specified by the ATD in the extremely rare events where a detonation of an explosive magazine has occurred<sup>14</sup>. The risk assessment would also evaluate the ground vibrations from a theoretical detonation of an underground magazine to ensure that no significant damage to structures on surface would occur based on the quantity of explosives and distance from structures on surface.

Underground use of explosives is also strictly regulated by federal and state laws. For example, MSHA (30 CFR 57.6302) requires explosives and blasting agents to be kept separate from detonators until loading of explosives into predrilled blast holes begins. The blast site shall be barricaded and posted with warning signs, such as "Danger", "Explosives," or "Keep Out". Before firing a blast, MSHA requires ample warning to be given, guarding or barricading of access routes to prevent the passage of persons or vehicles, and post-blast inspection before resuming work in the blast area. In the event of a misfire, MSHA requires a 30-minute waiting period if safety fuse and blasting caps

<sup>13</sup> Western Australia Department of Mines, Industry Regulation and Safety. *Dangerous Goods Safety Guidance Note, Storage of Explosives*. 2018, page 12.

<sup>14</sup> Institute of Makers of Explosives. *The American Table of Distances*. April 2017, page 7.



are used, or 15 minutes for any other type of detonator, after which qualified mine personnel shall resolve the misfire incident pursuant to MSHA regulations.

Blasting activities are proposed to take place twice daily with blasting between shifts at 7AM and 7PM with 3 to 4 drift rounds blasted every 12 hours between shift changes and longhole blasts of approximately 3,300 tons of rock taking place once every 3-4 days. Explosives required for loading drift rounds or longhole blasts would be transported directly from the underground magazine to the working area and therefore explosives quantities in transit underground would be a maximum of approximately 500 pounds at any given location. No mining is proposed closer than 500 feet to surface; thus, explosives in transport would be at least this distance from the surface.

The use of explosives in modern underground mines is made safe due to the many regulations and safety measures adopted in the United States. There have been only three incidents attributed to Explosives and Breaking Agents resulting in fatalities in the past 25 years (1995-2021) in all underground metal mines in the United States<sup>15</sup>. Two of these incidents (2010 and 2011) were directly related to explosives and one of the incidents was related to CO poisoning from insufficient ventilation and was unrelated to explosives. None of the incidents presented a risk to the public from the use of explosives underground.

Based on the above, the transportation, storage, and use of explosives used in furtherance of the project would be required to comply with applicable federal and State laws at all times. Compliance with such would help to ensure that a significant hazard to the public or the environment through the routine transport, use, or disposal of explosives would not occur.

Potential noise and vibration impacts associated with use of explosives is addressed in Chapter 4.10, Noise and Vibration, of this EIR.

### Use and Storage of Various Chemicals

The proposed project would involve the use of a number of chemicals at the Brunswick Industrial Site during the processing of materials. Mercury or cyanide would not be used in gold mineral processing.

The warehouse building would include storage of common reagents, such as collectors, promoters, frothers, and flocculants, all of which would be used in the gold recovery process conducted in the process plant. These reagents are needed in the gold recovery process to provide a more environmentally friendly alternative to cyanide, which will not be used. According to the Hazardous Material Inventory Statement for the Brunswick Industrial Site, common names of the proposed reagent chemicals include Aerophine, Methyl Isobutyl Carbinol (MIBC), Magnafloc 10, and Soda Ash. Aerophine is known as a promoter or collector, used in flotation to increase

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<sup>15</sup> United States Department of Labor – Mine Safety and Health Administration. *Fatality Reports*. Available at: [https://www.msha.gov/data-reports/fatality-reports/search?combine=&field\\_mine\\_category\\_tid=186&field\\_arep\\_fatal\\_date\\_value%5Bvalue%5D%5Byear%5D=&province=All&field\\_accident\\_classification\\_tid%5B%5D=16](https://www.msha.gov/data-reports/fatality-reports/search?combine=&field_mine_category_tid=186&field_arep_fatal_date_value%5Bvalue%5D%5Byear%5D=&province=All&field_accident_classification_tid%5B%5D=16). Accessed December 2021.



the floatability of minerals in order to effect their separation from the undesirable mineral fraction. Flotation is an industrial process for selectively separating valuable minerals from non-valuable minerals. The applicant has selected Aerophine over xanthates as the latter can generate carbon disulfide upon decomposition, which is known to be a highly toxic and flammable compound with potential risks to the health and the environment. Magnafloc 10 is known as a flocculant, which help aggregate fine suspended particles to form larger flocs so that the solids can more easily be separated from the water. Magnafloc 10 is not expected to bioaccumulate in organisms, its chemical family (polyacrylamide) is relatively non-toxic, and it is not readily biodegradable into more environmentally problematic chemicals.<sup>16</sup> MIBC is a frother used to create foam to facilitate froth flotation of gold minerals in the gold recovery process. Based on available data, MIBC has a low bioaccumulation potential and exhibits low toxicity to aquatic organisms.<sup>17</sup> Soda Ash is used in gold flotation to control alkalinity. These reagents have various properties, some of which are described above. Whereas some are flammable (e.g., MIBC), others are not (e.g., Soda Ash). The reagents would be removed from the concentrate and sand tailings during the dewatering stage conducted in the process plant using filter presses. All reagents have specific storage requirements that would need to be met on-site, as verified by the Fire Marshall's Office prior to commencement of operations.

Other commonly stored chemicals at the warehouse building would include but not be limited to Oxygen, Acetylene, Argon welding gas, motor oil, hydraulic oil, and antifreeze.

The Water Treatment Plant would also store and use various chemicals, including Manganese Dioxide, Potassium Permanganate, Sodium Hypochlorite Solution, and Sulfuric Acid. These chemicals are commonly used in water treatment plant operations and said chemicals have specific storage requirements that would need to be met on-site, as verified by the Fire Marshall's Office prior to commencement of operations.

In addition, various pieces of equipment would be used, requiring the need for diesel fuel. Diesel fuel consumption would vary between 450 to 850 gallons per day, depending on the location where engineered fill is trucked. During normal operations, an average of one 7,500-gallon fuel tanker would travel to/from the sites every nine days, using Brunswick Road to SR 20/49, over the 80-year term of the Use Permit. During any public safety power shutoff events, a maximum of two fuel tankers per day would be required due to additional fuel demands associated with backup generators.

For the Brunswick Industrial Site, the diesel fuel would be stored in two 12,000-gallon, above-ground diesel storage tanks, while the majority of the other chemicals would be stored in 55-gallon drums. The tanks would be located in the industrial building complex area. Diesel fuel is considered a Class II liquid, and as such, the tanks would be regulated in accordance with Chapter 23 of the California Fire Code (CFC). Chapter 23 of the CFC includes robust design requirements for above-ground fuel storage tanks, including but not limited to requirements for overfill protection, spill containment,

<sup>16</sup> Aarhus University. *Review on Environmental Risk Assessment of Mining Chemicals used for Mineral Separation in the Mineral Resources Industry and Recommendations for Greenland* [pg. 20]. 2016.

<sup>17</sup> Aarhus University. *Review on Environmental Risk Assessment of Mining Chemicals used for Mineral Separation in the Mineral Resources Industry and Recommendations for Greenland* [pg. 24]. 2016.



and dispenser emergency shutoff valve. Compliance with CFC requirements, as determined by the Fire Marshall's Office, at time of improvement plan review, would reduce fire hazards, including potential leaks, related to on-site fuel storage tanks.

According to the Hazardous Material Inventory Statement for the Centennial Industrial Site, the only potential hazardous material to be stored on the site would be diesel fuel. The diesel fuel would be stored in a 1,200-gallon AST. The diesel tank use and storage would be subject to all applicable regulations, including providing secondary containment, enclosure, placement consistent with regulations within the CFC, and setback requirements.

Because the proposed project would involve the use and storage of a number of hazardous materials, the project applicant would be required to obtain a number of permits and approvals from regulatory agencies, as well as comply with all applicable federal, State, and local regulations for the handling, storage, and transportation of hazardous and toxic materials. For example, the project applicant would be required to register with the CUPA (in the case of the proposed project, NCEHD) for all applicable hazardous materials programs, including the hazardous materials business plan program and the above-ground petroleum storage program. As part of the hazardous materials business plan program, the project applicant would be required to obtain a permit from the NCEHD and prepare a hazardous materials business plan detailing facility information, a hazardous materials inventory, and an emergency response plan. As part of the above-ground petroleum storage program, a spill prevention control and countermeasures plan would be prepared, which would guide reporting, control, and cleanup activities in the event of a spill.

In addition, pursuant to California Health and Safety Code Section 25510(a), except as provided in subdivision (b),<sup>18</sup> employees or other on-site authorized personnel shall, upon discovery, immediately report any release or threatened release of a hazardous material to the CUPA (in the case of the proposed project, NCEHD). The employee/authorized personnel shall provide all State, city, or county fire or public health or safety personnel and emergency response personnel with access to the facilities. In the case of the proposed project, the mine operator would be required to notify the NCEHD in the event of an accidental release of a hazardous material, who would then monitor the conditions and recommend appropriate remediation measures.

Compliance with the aforementioned permits and applicable federal, State, and local regulations would ensure that the proposed project would not result in a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, specifically related to the use and storage of various chemicals, including diesel fuel.

### Conclusion

Based on the above, compliance with applicable federal, State, and local regulations would minimize the potential for the proposed project to result in a significant hazard to the public or the environment through the routine transport, use, or disposal of

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<sup>18</sup> Section 25510(b) states the following: "Subdivision (a) does not apply to a person engaged in the transportation of a hazardous material on a highway that is subject to, and in compliance with, the requirements of Sections 2453 and 23112.5 of the Vehicle Code."



hazardous materials, specifically related to transport, underground storage, and use of explosives. Nonetheless, because the project would include ongoing transport, underground storage and use of explosives, and because compliance with federal and State regulations is required, Mitigation Measures 4.7-1(a-d) are included out of an abundance of caution to ensure satisfaction with such standards and to minimize the potential for hazards resulting from the proposed project to the maximum extent feasible. It is conservatively concluded that the proposed project could result in a **significant** impact related to the routine transport, storage, and use of explosives.

#### Mitigation Measure(s)

Implementation of the following mitigation measures would minimize the risk from transport, underground storage, and use of explosives at the Brunswick Industrial Site to a *less-than-significant* level.

- 4.7-1(a) *The mine operator shall comply with all applicable federal and state regulations governing the transport, underground storage and use of explosives, including MSHA (CFR Title 30, Part 57), OSHA (CFR Title 29, Part 1910 and 1926), and CCR (Title 8, Part 5251ff. and 5291).*
- 4.7-1(b) *The mine operator shall prepare a Risk Assessment when the underground mine is accessible after initial dewatering and before storage of explosives underground, specifying the location of each magazine and its maximum storage capacity. The Risk Assessment shall be performed by a qualified professional (e.g., licensed engineer) in accordance with the Methods and Algorithms Used for Quantitative Risk Analysis of the Institute of Markers of Explosives and submitted to MSHA for their review. The Risk Assessment shall demonstrate protection of the public from hazards of explosives storage and be provided to the Nevada County Planning Department before underground storage of explosives.*
- 4.7-1(c) *The mine operator shall ensure, through the enforcement of contractual obligations, that all contractors or suppliers transport explosives in a manner consistent with all applicable regulations and guidelines. Proof of the agreement between the operator and contractor or supplier transporting explosives shall be provided to the Nevada County Planning Department before transporting explosives to the site.*
- 4.7-1(d) *Prior to the transport, storage, or use of hazardous materials or explosives at the site, the mine operator shall prepare a Hazardous Materials Business Plan (HMBP). The County shall review and approve the HMBP prior to the use or storage of hazardous materials or explosives on-site.*



**4.7-2 Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment or be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.**

According to the *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369 (CBA), the California Supreme Court held that “agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project's future users. But when a proposed project risks exacerbating those environmental hazards or conditions that already exist, an agency must analyze the potential impact of such hazards on future users. In those specific instances, it is the impact of the project on the environment – and not the impact of the environment on the project – that compels an evaluation of how future residents or users could be affected by exacerbated conditions.” (*Id.* at pp. 377-378.). Therefore, the discussion below focuses on the potential for the proposed project to exacerbate the existing RECs identified for the Centennial and Brunswick Industrial Sites, respectively, including related to being located on sites identified on lists of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

Centennial Industrial Site

As stated in the Existing Environmental Setting section of this chapter, the baseline condition for the Centennial Industrial Site has been adjusted for this analysis to reflect the post-remediation condition. Accordingly, potential RECs associated with the Centennial Industrial Site would not exist under the adjusted baseline condition given that such condition reasonably assumes DTSC will have issued a No Further Action letter following successful remediation in accordance with the RAP. Therefore, the proposed operations associated with the Centennial Industrial Site would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment. In addition, the Centennial Industrial Site is not listed on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

This conclusion is consistent with the conclusions of the IS/MND prepared for the RAP by DTSC, which states that “...the Project [RAP] will not create a significant hazard to the public or the environment through transport, use, or disposal of hazardous materials, and will actually reduce hazards by cleaning the site.”<sup>19</sup>

Brunswick Industrial Site

As presented in the Existing Environmental Setting section of this chapter, a number of potential RECs were identified in association with the Brunswick Industrial Site. The

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<sup>19</sup> Department of Toxic Substances Control. *California Environmental Quality Act Initial Study, Centennial M1 Property Clean-Up Project Remedial Action Plan* [pg. 50]. July 26, 2021.



potential for the proposed project to result in a reasonably foreseeable upset or accident condition related to the release of hazardous materials into the environment associated with the on-site RECs is discussed in further detail below. It is noted that the Brunswick Industrial Site is not listed on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

#### *Elevated Metals Concentrations in On-site Soils*

At locations other than the southeastern paved area, the Phase II investigation did not detect total arsenic at concentrations that would classify the soil as hazardous waste. In addition, the total concentrations of metals other than arsenic were not detected in the mine waste and soil samples at concentrations exceeding the applicable screening levels, and significant concentrations of asbestos were not detected. Accordingly, the only area identified as having total and soluble arsenic concentrations that exceed regulatory benchmarks on the site is the mixed soil and rock fill beneath the southeastern paved area. According to the Phase I/II ESA, the material was likely imported to the site and did not originate from mining operations at the Brunswick Mine shaft. Thus, the material is isolated and materials obtained from the proposed mining operations on the Brunswick Industrial Site are not expected to contain elevated levels of arsenic. However, if disturbance of the mine waste beneath the southeastern paved area would occur during construction of the proposed project, the existing contaminated materials could become exposed, exacerbating a potential hazard to the public or the environment. Thus, the proposed project could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment, specifically related to the existing mixed soil and rock fill beneath the southeastern paved area.

#### *Historic Storage and Use of Petroleum Products*

According to previous environmental reporting, three areas of the site had excavations associated with petroleum contaminated soils, which are identified as Areas A, B, and C. Documentation or record of closure for the cleanup of Areas A, B, or C were not found during research conducted for the Phase I ESA prepared by ECM Consultants or Phase I/II ESA prepared by NV5. However, due to the results of verification sampling and analysis, Areas B and C would likely be considered HRECs provided that regulatory closure documentation is found or the existing records are subjected to regulatory review for confirmation of closure. However, for Area A, where AC Industrial Cleaning removed a buried electrical transformer and contaminated soil from a location west of the recycling pond, the excavation sidewalls contain impacted soil according to the summary report. The remaining contaminated soils are assumed to be present on-site. Thus, if the contaminated soils are encountered and disturbed during operation of the proposed project, the project could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment, specifically related to the existing contaminated soils.

#### *Controlled Recognized Environmental Conditions*

The former sawmill site was a PCP and tetrachlorophenol contaminated site; however, contaminated soil was excavated in 1989 and remediated in accordance with a remediation plan developed in coordination with regulatory agencies. Documentation



suggests that 375 cubic yards of contaminated soil was excavated, with confirmation samples collected and analyzed to confirm that soil above the PCP remediation goal had been removed. Case closure was issued by the RWQCB for the impacted soils within the green chain area.

Based on the results of groundwater monitoring, a No Further Action letter was issued by the RWQCB on December 16, 2006, which determined that all VOCs remaining in groundwater do not pose a risk to human health, the environment or waters of the State, and that remaining VOCs show a downward trend and should reach nondetectable concentrations by 2015. A Land Use Covenant with the Nevada County Assessor's Office was filed and proof of monitoring well destruction was submitted. The Land Use Covenant was established to restrict groundwater use based on remaining groundwater contamination at concentrations above the MCL for drinking water. It should be noted that an evaluation of inhalation risk to human health from residual VOC in the groundwater was performed and the results indicated that an associated significant threat to human health from vapor migration to indoor air did not exist. The Covenant states that if, after any four consecutive quarters of any year within the term of the Covenant, groundwater samples collected from the site indicate levels of VOC below the MCL, then the Covenant shall terminate with written concurrence from the RWQCB. If the Covenant is rescinded in the future, then the condition could be considered an HREC rather than a CREC.

#### *Other Potential Environmental Concerns*

A number of monitoring wells were observed to be present on the site; however, the location, status, and total number of remaining wells is not definitely known. Any existing on-site monitoring wells would continue to act as conduits to groundwater unless assessed for reusability or removed.

Undocumented soil fill was identified in various areas of the Brunswick Industrial Site. Because the origin of the fill is unknown, the soil could be considered contaminated without evidence proving otherwise. In addition, historic storage of chemicals occurred on the Brunswick Industrial Site. Although signs of contamination related to such were not identified during the site reconnaissance performed as part of the Phase I or Phase I/II ESAs prepared for the proposed project, should any such contamination be discovered during project improvements, pursuant to Mitigation Measure 4.7-2(b) below, appropriate measures would be required to be implemented in order to ensure a significant hazard to the public or the environment related to exposure of such does not occur.

While undocumented drums were identified on the Brunswick Industrial Site, the drums would be removed and appropriately disposed of as part of project improvements. If indications of contamination related to the drums are identified during project improvements, appropriate measures would be required to be implemented in order to ensure a significant hazard to the public or the environment related to exposure of such contamination does not occur.

#### East Bennett Road ROW

As discussed in the Project Description chapter of the EIR, an approximately 1¼-mile-long by two feet-wide (approximately 0.30-acre) stretch of East Bennett Road would



be temporarily disturbed to bury the proposed potable water pipeline. Initially, an approximately 24-inch-wide by 42-inch-deep open trench would be developed in the existing paved ROW. Upon completion of trenching in a specific section of the route, the eight-inch pipeline would be installed. The pipe would be covered with the stockpiled soil removed during trenching or engineered fill, as required by County guidelines. The backfilled trench within the East Bennett Road ROW would then be paved consistent with County guidelines. Given that the pipeline would be installed within the existing paved ROW, the underlying soils are not observable at this time. Nevertheless, the soils underlying the East Bennett Road asphalt are not anticipated to contain materials that could pose hazards during construction, given the previous disturbance of the ROW to grade and construct the roadway. Ongoing vehicle use of the roadway would not lead to contamination of underlying soils due to the impervious nature of the asphalt surface.

### *Conclusion*

Based on the above, implementation of the proposed project could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment, specifically related to elevated arsenic levels in the existing mixed soil and rock fill beneath the southeastern paved area, should the area be disturbed as part of the proposed project, potentially encountering contaminated soils, the potential presence of petroleum contaminated soils, and the presence of monitoring wells. As a result, impacts would be considered **significant**.

### Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

- 4.7-2(a) *If disturbance of the mine waste beneath the southeastern paved area within the Brunswick Industrial Site is proposed as part of the project, the site-specific arsenic concentration data resulting from the Phase I/II ESA prepared by NV5 for the proposed project shall be furnished to the project contractor(s) so the contractor(s) can comply with applicable health and safety requirements accordingly. The project contractor(s) shall retain a Certified Industrial Hygienist to develop specific handling procedures for the mine waste, including dust mitigation. Mine waste shall not be removed from the site without regulatory approval by the RWQCB or DTSC. Verification of proper handling and disposal of the mine waste shall be provided to the Nevada County Planning Department.*
- 4.7-2(b) *If unidentified or suspected contaminated soil or groundwater evidenced by stained soil, noxious odors, or other factors, is encountered during site improvements, work shall stop in the area of potential contamination, and the type and extent of contamination shall be identified by a Registered Environmental Assessor (REA) or qualified professional. The REA or qualified professional shall prepare a report that includes, but is not limited to, activities performed for the assessment, summary of anticipated contaminants and contaminant*



concentrations, relevant Environmental Screening Levels for identified contaminants, whether the contaminants exceed Environmental Screening Levels, thus warranting remediation, and recommendations for appropriate handling and disposal. Site improvement activities shall not recommence within the contaminated areas until any necessary remediation identified in the report is complete. The report and verification of proper remediation and disposal shall be submitted to the Nevada County Planning Department for review and approval.

- 4.7-2(c) *Prior to commencement of any construction activities, the project applicant shall determine the location of all existing wells on the site. Prior to any ground disturbance activities within 50 feet of an identified well on the project site, the applicant shall hire a licensed well contractor to obtain a well abandonment permit from the NCEHD for any wells that will no longer be used, and properly abandon the on-site wells, pursuant to Department of Water Resources Bulletin 74-81 (Water Well Standards, Part III), for review and approval by the NCEHD.*

**4.7-3 For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area. Based on the analysis below, the impact would be *less than significant*.**

The closest public use airport to the project site is the Nevada County Air Park, less than one-mile (approximately 4,000 feet) northeast of the Brunswick Industrial Site. The project site is partially within Zones D and E of the Nevada County Airport Land Use Compatibility Plan (NCALUCP). For Zone D, airspace review is required for objects at elevations above 3,207 feet mean sea level (msl). The tallest point of the project site (the 165-foot tall headframe building) would be at 2,912 feet msl. In addition, the project is not a noise-sensitive use, would not pose a hazard to flight, and would not exceed the density requirements; therefore, the project would comply with the requirements of the NCALUCP for Zones D and E.

Nevertheless, the proposed project would be required to be reviewed by the ALUC because it would have a building floor area of 20,000 square feet or greater, would include more than 100 people on-site, and would include new development of buildings more than 100 feet tall in Zones D and E. The purpose of the ALUC review would be to review the proposed project for consistency with the compatibility criteria in the NCALUCP, and not for the purpose of identifying potential environmental effects.

Based on the above, the proposed project would not result in a safety hazard or excessive noise for people residing or working in the project area related to the Nevada County Air Park. Therefore, impacts related to airport safety hazards and noise would be ***less than significant***.



Mitigation Measure(s)

*None required.*

**4.7-4 Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Based on the analysis below, the impact would be *less than significant*.**

As stated in the Nevada County General Plan Safety Element and the Nevada OA Evacuation Annex to the County EOP, primary evacuation routes in Nevada County consist of the major interstates, highways, and principal arterials identified on the Nevada County General Plan Land Use Map. The routes designated on the General Plan Land Use Maps as minor arterial or major collector routes shall be considered secondary evacuation routes on a Countywide basis. These routes supplement the primary evacuation routes, and provide egress from local neighborhood and communities. According to the Table 4.1 of the Circulation Element of the General Plan, Brunswick Road is considered a Minor Arterial, and thus, is not a primary evacuation route for the County. Rather, Brunswick Road is considered a secondary evacuation route.

As discussed in the Project Description chapter, the average transport of engineered fill will be 1,000 tons per day. A maximum transport rate of up to 2,000 tons of engineered fill per day is required to make up for periodic weather or operational delays. Truck payloads will be approximately 20 tons per truck and therefore will require up to a maximum of 100 round trips per day and an average of 50 round trips per day, over a 16-hour period (6:00 AM to 10:00 PM). Up to 18 additional truck trips could occur per day for various operations (gold concentrate shipping, materials deliveries, etc.).

For a period of approximately five years, trucks would transport barren rock from the Brunswick Industrial Site to the Centennial Industrial Site or Brunswick Industrial Site engineered fill areas. Transport of barren rock to the Centennial Industrial Site is anticipated to occur 16 hours per day, seven days per week. At these rates, it would take approximately five years to fill the approximately 44-acre fill area of the 56-acre Centennial Industrial Site using engineered fill from the Brunswick Industrial Site. Notwithstanding the priority of placing engineered fill at the Centennial Site, the ultimate approach to engineered fill placement will need to remain flexible to address any potential unforeseen circumstances. One such scenario would be if the remediation of the Centennial Industrial Site, currently under DTSC oversight, is not complete upon commencement of mining, in which case engineered fill would be placed at the Brunswick Industrial Site and/or transported off-site to be utilized in local and regional construction markets. If the clean-up project on the Centennial Industrial Site is not completed within the 80-year permit life of the mine project, engineered fill would be placed at the Brunswick Industrial Site and/or transported off-site to be utilized in local and regional construction markets, and no material would be placed on the Centennial Industrial Site. With respect to the Brunswick Industrial Site, engineered fill would be transported from the truck-loading area to an approximately 31-acre portion of the Brunswick Industrial Site. Assuming the same rates for the



Centennial Industrial Site, it would take approximately six years to fill the Brunswick Industrial Site engineered fill area to the design elevations.

After full placement of fill at the Centennial and Brunswick Industrial Sites to the pad design elevations, the need for hauling of engineered fill would continue due to ongoing mining over the use permit term of 80 years, and thus, hauling would shift entirely to local and regional markets, with the maximum truck trips per day remaining at 100, with a daily average of 50.

Engineered fill from the Brunswick Industrial Site will be hauled to the Centennial Industrial Site via Brunswick Road and Whispering Pines Lane. Engineered fill from the Brunswick Industrial Site to other customers will be hauled using Brunswick Road to SR 20/49. Off-site haul of gold concentrate will average one truck trip per a day using Brunswick Road to SR 20/49. Hauling of fuel and other freight, including explosives, would occur using Brunswick Road to SR 20/49. Thus, over the life of the project, up to 118 haul truck round trips would occur on Brunswick Road during the hours from 6:00 AM to 10:00 PM, seven days a week. On an hourly basis, this equates to approximately 7.4 haul truck round trips per hour on Brunswick Road.

In the event of an emergency, such as a wildfire, requiring evacuation, the incident command center would direct County OES to issue the evacuation order through its Code Red Mass Communication System to notify residents and/or utilize the Wireless EAS to send out notifications through cell phones and/or utilize the EAS, which broadcasts across TV screens and AM/FM radio. In addition, the Sheriff's Office will send out deputies to evacuation areas to broadcast an emergency siren (Hi-Lo System) from their patrol vehicles.

In the event of an evacuation order in the vicinity of the proposed mine, such as an evacuation of residents off of Greenhorn Road, the incident command center would contact dispatch and direct them to contact the mine and request the mine operator to shut down the mine and cease all truck hauling operations.<sup>20</sup> While Brunswick Road is not a primary evacuation route, it would be the evacuation route used by residents of the Greenhorn Road area to evacuate to the primary evacuation route of SR 49/20. Ceasing haul truck operations during the emergency evacuation order would ensure that the proposed project would not have the potential to physically interfere with an emergency evacuation plan. Operation of the approximately 7.4 haul trucks per hour attributable to the proposed project could either be temporarily ceased and/or these trucks could pull off the road to enable residents to evacuate as quickly and expeditiously as possible. With the temporary cessation of mine operations, if directed by County dispatch, no further haul trucks would be entering Brunswick Road during an evacuation order. Accordingly, County OES has stated that the proposed project would not have a significant impact related to physically interfering with an adopted emergency evacuation plan.<sup>21</sup>

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<sup>20</sup> Personal communication between Lieutenant Robert Jakobs, Emergency Operations Coordinator, Office of Emergency Services, Nevada County Sheriff's Office, and Nick Pappani, Vice President, Raney Planning & Management, Inc., January 5, 2021.

<sup>21</sup> *Ibid.*



Therefore, impacts related to the potential for the project to impair implementation of emergency response plans would be ***less than significant***.

Mitigation Measure(s)

*None required.*

**Cumulative Impacts and Mitigation Measures**

For further detail related to the cumulative setting of the proposed project, refer to Chapter 5, Statutorily Required Sections, of this EIR.

**4.7-5 Cumulative hazards to the public or the environment related to increases in the transport, storage, and use of hazardous materials. Based on the analysis below, the cumulative impact would be *less than significant*.**

In general, hazardous materials and other public health and safety issues are site-specific and/or project-specific, and would not be significantly affected by other development within the project area. While the proposed project would involve haul of hazardous materials to and from the Brunswick Industrial Site via Brunswick Road, no other cumulative projects are anticipated to similarly haul hazardous materials along Brunswick Road on an ongoing basis. In addition, cumulative development projects would be subject to the same federal, State, and local hazardous materials management requirements as would the proposed project, which would minimize potential risks associated with increased hazardous materials use in the community.

With respect to the transport, underground storage, and use of explosives at the Brunswick Industrial Site, this EIR concludes that, compliance with applicable federal and state regulations, such as MSHA, OSHA, and CCR, as set forth in Mitigation Measures 4.7-1(a-d), would ensure that the explosive hazards associated with the ongoing operation of the proposed project would be less than significant. In conclusion, the proposed project would not combine with other cumulative projects to create significant related hazard impacts, and the cumulative impact would be ***less than significant***.

Mitigation Measure(s)

*None required.*

