Historic Properties Inventory and Finding of Effect for the Idaho-Maryland Mine Project

Nevada County, California

Prepared for

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INTRODUCTION

This Historic Properties Inventory and Finding of Effect document was prepared as a result of a cultural resources study conducted by InContext, under contract to Rise Grass Valley, Inc., for the Idaho-Maryland Mine Project (Project) (Figures 1 and 2). The study was completed in compliance with the California Environmental Quality Act (CEQA) and Section 106 of the National Historic Preservation Act (NHPA). The study consisted of the following tasks:

- prefield research
- outreach to potentially interested parties
- pedestrian survey
- historical research
- evaluation of resources eligibility for listing in the NRHP and the CRHR
- assessment of project effects on NRHP and CRHR eligible resources' qualifying characteristics

The study resulted in the identification of one cultural resource that is considered eligible for listing in the National Register of Historic Places (NRHP) and the California Register of Historical Resources (CRHR) for the purpose of this undertaking only. This resource is the Assumed[1] Idaho-Maryland Mines Historic District (Historic District) and is comprised of three separately documented mines: the Idaho- Maryland Mine (P-1447); the New Brunswick Mine (P-29-1494); and the Union Hill Mine (P-29-1496).

An assessment of the Project's impacts to the physical characteristics that qualify the Historic District for NRHP and CRHR eligibility finds that, by implementing recommended mitigation measures, the project will have no adverse effect as defined by Section 106 of the NHPA and will not result in a significant adverse impact as defined by CEQA.

Project Description

The proposed Project is in Nevada County, approximately 1 mile east of downtown Grass Valley (Figures 1 and 2). The Project will take place at the Brunswick Industrial Site (119 acres) and the Centennial Industrial Site (56 acres) for a total of 175 acres. The Project will also include construction of a new potable water pipeline (approximately 1.5 miles long) along a portion of East Bennet Road (see Figure 2). Project activities will also occur underground within the mineral rights area owned by the Rise Gold Corporation.

The Area of Potential Effect (APE) for NHPA and the study area for CEQA consist of the entire 175 acres and the 1.5-mile pipeline. However, specific areas of direct impact are confined to the potable water pipeline (1.5 miles), 60 acres at the Brunswick Industrial Site, and 44 acres at the Centennial Industrial Site

[1]The word "assumed" is used because the resource has not been determined eligible by the lead federal agency as required by Section 106 of the NHPA; nor has it been fully inventoried or its boundaries defined, as that is not required by Section 106 or CEQA.

(for a total of 104 acres). In addition to the potable water pipeline, the Project would consist of four major components: dewatering, mining, processing, and placing engineered fill. Most of the above-ground Project activities will be conducted at the Brunswick Industrial Site. The Centennial Industrial Site will be subject only to the placement of engineered fill (44 acres).

The potable water pipeline will extend the existing Nevada Irrigation District (NID) pipeline to provide potable water to residents along East Bennett Road. It will begin west of the intersection of Brunswick Road and East Bennett Road, follow East Bennett Road until just south of the Centennial Industrial Site, then turn north just east of the Centennial Industrial Site to connect with an existing NID pipeline at Whispering Pines Lane.

Dewatering will require the use of the existing Brunswick shaft and construction of a new 165-foot-high headframe and hoist. The new headframe will be constructed of steel over the existing concrete tower and clad in painted metal. Water will be pumped into an above-ground pipeline (separate from the potable water pipeline) to empty into an existing 40-acre-foot clay-lined settling pond. The water will then be treated in a new treatment plant before it is discharged into South Wolf Creek at a rate of up to 5.6 cubic feet per second.

Mining is proposed in accordance with the property owners' 2,585 acres of mineral rights, which begin at 200 feet below the surface. However, proposed mining will be conducted deeper than 500 feet below ground surface. A new service shaft will be constructed from the underground mine to the surface. Office/warehouse buildings, as well as an ore-processing plant, water-treatment plant will be required for treatment and processing.

To provide access to the gold mineralization, portions of the extensive network of tunnels and raises will be rehabilitated throughout the life of the mine to meet current Mine Safety and Hazard Administration (MSHA) standards. The tunnels would be expanded by drilling and blasting to fit mechanized equipment to approximately 10-foot wide by 10-foot high. Modern ground support with rock bolts and screen would be installed during rehabilitation and existing rail track may be replaced.

Table 1. Depths of Ground-Disturbing Project Components

Location	Action	Max Depth of Ground Disturbance
Mineral Rights Area	Mining	Begins at 500 feet below grade
Brunswick	Pond berm repair	18 feet in existing pond berms
Brunswick	Service shaft collar	60 feet
East Bennett Road	Potable water pipeline	10 feet
Brunswick	Building pads and roads	16 feet
Brunswick	Engineered fill area	10 feet

Regulatory Context

California Environmental Quality Act

The proposed Project is subject to CEQA compliance because it requires a discretionary action by Nevada County. CEQA requires public agencies to evaluate the implications of their projects on the environment and includes *historical resources* and Tribal Cultural Resources as part of the environment. If a project results in significant adverse impacts on *historical resources* or Tribal Cultural Resources, the impact should be disclosed, and mitigation measures must be considered. The steps that are typically taken in a cultural resources investigation for CEQA compliance are as follows:

1. Identify historical resources or Tribal Cultural Resources that may be affected by the project;
2. Assess the impact of the project on historical resources and Tribal Cultural Resources; and
3. Develop and implement measures to mitigate the impacts of the project on historical resources and Tribal Cultural Resources.

Tribal Cultural Resources are not addressed in this document because they will be addressed by Nevada County, who, as the lead agency, will conduct AB52 consultation.

Section 106 of the National Historic Preservation Act

The Project will require a permit issued by the U.S. Army Corps of Engineers (ACOE). As a result, the Project is considered a federal undertaking and, as such, is subject to compliance with Section 106 of NHPA (Section 106). Section 106 requires that, before beginning any undertaking, a federal agency must take into account the effects of the undertaking on *historic properties* and afford the Advisory Council on Historic Preservation (ACHP) an opportunity to comment on these actions (16 U.S.C. 470f). The Section 106 process is presented in 36 CFR 800 and consists of the following five basic steps:

1. Initiate process by coordinating with other environmental reviews, consulting with the State Historic Preservation Officer (SHPO), identifying the Area of Potential Effects; identifying and consulting with interested parties, and identifying points in the process to seek input from the public and to notify the public of proposed actions.
2. Identify cultural resources and evaluate them for National Register of Historic Places (NRHP) eligibility, resulting in the identification of historic properties.
3. Assess effects of the project on historic properties.
4. Consult with SHPO and interested parties regarding adverse effects on historic properties, resulting in a Memorandum of Agreement (MOA).
5. Proceed in accordance with MOA.

Section 106 requires that the federal agency carry out the process. A second party, in this case, InContext, can only make recommendations to the federal agency. The federal agency must consult with SHPO and interested parties and make the determinations of eligibility and effect.

Area of Potential Effects

For the purpose of identifying *historic properties*, the APE for the proposed Project is recommended as the full extent of project limits as depicted on Figure 2 and described in the Project Description above as 175 acres plus the 1.5-mile pipeline corridor. In addition, the APE includes the underground workings, which are represented in 2 dimensions on Figure 3 and by the total acreage of 2,585, rather than the actual volume that would encompass the depth and length and width of those workings (Figure 4).

Nevada County Code

Nevada County provides regulations to guide the design, location, and development of new land uses and the alteration of existing uses (NCC Title 3 – Land Use and Development Code). These regulations include Site Development Standards (Standards) to preserve, protect, and manage the County's significant cultural resources. These standards are consistent with the Nevada County General Plan provisions protecting historic resources (NCC Sec. L-II 4.3.6 Cultural Resources).

The County defines significant cultural resources as "noteworthy archaeological and historical sites, structures, features, artifacts, and other historically important places, and Native American spiritual sites, as may be defined by the County of Nevada based upon recommendations by the Native American Heritage Commission or recognized Native American group, Nevada County Landmarks Commission, or the Nevada County Historical Society in terms of integrity, research potential, and public benefit as defined by the Nevada County General Plan, the National Register of Historic Places, the California Register of Historical Resources, CEQA, local standards, or as determined by the lead agency to be significant based on substantial evidence in the record". The Standards provide a proscribed process by which the County may ensure its significant cultural resources are preserved, protected, and managed. This process requires the following be completed:

A. Records search at the North Central Information Center (NCIC)
B. Cultural Resource Study of the project area by a qualified professional[2] submitted to the County
C. Consultation with qualified Native American Consultant if there is a high likelihood that Native American archaeological sites and/or spiritual and non-physical sites may be encountered
D. If the project results in removing or disturbing cultural resources, qualified professional prepares document in accordance with the California State Office of Historic Preservation Guidelines (OHP 1990) to analyze and determine significance of the cultural resource according to the importance standards listed in CEQA, assess impacts to significant cultural resources, and provide mitigation measures to reduce such impacts to insignificant levels.
E. Mitigation measures shall allow maximum protection of the resource and/or maximum preservation of knowledge contained within the resource and implemented prior to the onset of project activities and as part of the condition of project approval. Mitigation may include archaeological data recovery of significant archaeological sites if such sites cannot be preserved in place.

[2] County defines 'qualified professional' as an individual that meets the standards as set by the Register of Professional Archaeologists (ROPA) and has demonstrated a familiarity with the archaeology and history of Nevada County and/or adjoining regions of the north-central Sierra Nevada.

F. Condition of approval shall include a provision for cultural resources discovered during development construction, as follows:
Any person who, in the process of project activities, discovers any cultural resources and/or human remains within the project area, shall cease from all project activities within at least 200 feet of the discovery. A qualified professional shall be notified to assess any discoveries and develop appropriate management recommendations for cultural resource treatment. In the event that human remains are encountered, the sheriff-coroner shall be notified immediately upon discovery. In the event that Native American human remains are encountered, the Native American Heritage Commission or the most likely descendants of the buried individual(s) who are qualified to represent Native American interests shall be contacted. Specific treatment of Native American human remains shall occur consistent with State law.

G. Maintain confidentiality regarding the locations of cultural resources, which are exempt from public access by the California Public Records Act (PRC 6254.10).

Professional Qualifications

This cultural resources study was conducted by and under the direct supervision of Trish Fernandez, M.A., who meets the Secretary of Interior's Professional Qualification Standards for Archaeologist, Historian, and Architectural Historian. She is a Registered Professional Archaeologist (No. 989366) and a California Registered Historian (No. 583). Ms. Fernandez has more than 25 years' experience in cultural resources management throughout the Sierra Nevada, specifically in Nevada, Placer, El Dorado, Amador, Calaveras, and Tuolumne counties. Her expertise is western mining, historic-period resources, and prehistory. She is a recognized expert in CEQA and Section 106 compliance and has completed scores of projects requiring integration of local policies, CEQA, the National Environmental Policy Act, and Section 106. Throughout her career, Ms. Fernandez has also volunteered with a variety of cultural resources associated entities. She has been appointed and served on the Board of the Foothill Indian Education Alliance, the El Dorado County Cultural Resources Commission, the California State Historical Resources Commission, the Old Sacramento Historic Foundation, and the Professional Standards and Ethics Committee of the Society for California Archaeology. She is a member of the American Cultural Resources Association, Society for Historical Archaeology, Society for California Archaeology, and California Preservation Foundation. She was awarded the Thomas F. King Award for Excellence in Cultural Resources Management in 2008. Most recently, she was elected by RPA members as Incoming President for 2020-2022 and will serve as President from 2022-2024.

The pedestrian survey was led by Bruno Texier, B.A., who has more than 30 years' experience conducting cultural resources studies in California. Bruno has recent experience working as a crew member for the Empire Mine Project just south of the current project area.

Combined Compliance Procedures for the Project

This Project has been conducted in compliance with Nevada County Code, CEQA, and Section 106 through the following procedures and protocols:

- All work has been conducted or directly supervised by Trish Fernandez, who meets the County definition of qualified professional and the federal professional qualification standards as an Archaeologist, Architectural Historian, and a Historian.
- A records search at the NCIC was conducted.
- Previous cultural resources studies have been reviewed and an extensive literature review was conducted.
- Parties who may have an interest in or knowledge of cultural resources within the APE/Project Limits have been consulted, including historical societies, the NAHC, tribes referred by the NAHC, the Nevada City Rancheria Nisenan Tribe, Dr. Tiley (ethnographer of the region), the Nevada County Historical Landmarks Commission, and Gage McKinney (local historian).
- The entire APE/Project Limits have been surveyed to document previously undocumented cultural resources and to update documentation on previously documented resources.
- Each individual cultural resource identified within the APE/Project Limits has been evaluated for eligibility for listing in the CRHR and the NRHP.
- The Idaho-Maryland Mine, as documented by the Nevada County Landmarks Commission, is considered a historical resource as defined by CEQA.
- The Assumed NRHP-eligible Idaho-Maryland Mine Historic District (Historic District) has been identified within the APE/Project Limits.
    - The Historic District is associated with a significant historic theme and an associated significant time period.
    - The Historic District is recognized as including cultural resources outside the APE/Project Limits that, for the purpose of this project, are not required to be documented.
    - The historic theme provides sufficient context by which to evaluate the Historic District as a whole for eligibility for listing in the NRHP and the CRHR under all four respective criteria.
    - The specific impacts of the Project have been assessed to determine if the Project will result in a significant impact under CEQA or an adverse effect under Section 106.
        - The Project will result in alteration of a portion of the historic underground engineering and structural works, which is considered an adverse effect.
        - Measures are provided to reduce the significant impact to a less-than-significant level as defined by CEQA, insignificant as defined by the County, and a no adverse effect to historic properties under Section 106. It is recommended that the mitigation measure be implemented before project activities commence, as required by the County.

The following sections describe the methods employed to gather physical and historical data relating to the APE/Project Limits, document the resources within the APE/Project Limits, assess CRHR and NRHP eligibility, and assess Project impacts to the Historic District.

RESEARCH

Records Search

A records search was conducted on February 12, 2019, at the Northern Central Information Center (NCIC) of the California Historical Resources Information System (CHRIS), located at California State University, Sacramento (Appendix A). The search included a review of previously conducted surveys and previously recorded resources within the APE and a ¼-mile buffer.

Previous Studies

The records search indicates that eight studies have been conducted within the APE (Decater 1983, Lindstrom 1988, Jensen and Associates 1993, Windmiller 1995, Jensen 2002, Jensen 2004, and Waechter et al. 2016). Only one survey (Waechter et al. 2016) has been conducted within the last 5 years and was conducted solely on the route of East Bennett Road. As a result, the entire APE required a renewed pedestrian survey for this study which was conducted in May 2019. InContext prepared a Cultural Resources Survey Report for the Idaho-Maryland Mine Project in November 2019. That report is superseded by this Historic Properties Inventory and Finding of Effect.

Previously Recorded Cultural Resources

The records search also indicates that seven cultural resources, all historic-period, have been documented within APE (Table 2). None of these resources have been determined eligible for listing in the CRHR or NRHP.

Table 2. Previously Recorded Cultural Resources within/adjacent the APE

Primary No.	Name	Citation
P-29-0839	Segment of Nevada County Narrow Gauge Railroad (NGRR)	Windmiller 1995
P-29-1447	Idaho-Maryland Mine (western portion not plotted by NCIC)	Decater et al.1983
P-29-1485	McPherson Ditch #1	Furry and Jensen 1991
P-29-1494	Brunswick Mine	Russell and Cook 1994
P-29-1495	Two mining adits and two prospect pits	Windmiller 1995
P-29-1496	Union Hill Mine	Windmiller 1995
P-29-4634	East Bennett Road	McCabe et al. 2016

Literature Review

In addition to previous sites and surveys, the following sources at the NCIC, in the professional library of InContext, and online were reviewed. The results of the literature review are presented as part of the Cultural Context section in this report.

- Archaeological Determinations of Eligibility (CA OHP 2012b)
- California Archaeology (Moratto 1984)
- California Historical Resources (CA OHP 2013)
- California Place Names (Gudde 1974)
- California Prehistory (Jones and Klar 2007)
- Directory of Properties in the Historic Property Data File for Nevada County (CA OHP 2012a)
- Exploring Nevada County, An Illustrated Guide to Local Landmarks and Historic Sites (Nevada County Historic Landmarks Commission 2010)
- Geologic Guidebook Along Highway 49-Sierran Gold Belt (Jenkins 1948)
- Geologic Map of California (Burnett and Jenkins 1962)
- Geology of California (Norris and Webb 1976)
- Gold Districts of California (Clark 1970)
- Gold in Quartz: The Legendary Idaho-Maryland Mine (Clark 2005)
- Handbook of North American Indians, Volume 8 (Wilson and Towne 1978)
- Handbook of the Indians of California (Kroeber 1925)
- Historic Spots in California (Hoover et al. 1970)
- Historical Atlas of California (Beck and Haase 1974)
- Idaho-Maryland Mine History (Rise Gold Corporation 2019)
- MacBoyle's Gold (McKinney 2014)
- Original General Land Office survey for Township 16 North, Range 8 East, Mount Diablo Meridian (GLO 1882)
- Sierra Nevada Natural History (Storer and Usinger 1963)
- Soil Survey data (UC Davis Soils Resource Laboratory 2005)
- United States Geological Survey maps (1895, 1949)

Requests for Information

Requests for information were made to parties that could have an interest in cultural resources in the APE/Project Limits. This request for information letter was not sent to meet the Section 106 Invitation to Consult requirement for the federal agency or the AB52 Notification required by Nevada County. Specific requests were made to the Native American Heritage Commission (NAHC), Native American Consultants in the region (including the Nevada City Rancheria Nisenan Tribe), regional historical societies, and the Empire Mine State Park. Rise attorney Mitchell Chadwick submitted a public records search to Nevada County for all documents in the County's possession regarding designation of the Idaho-Maryland Mine as a local historic landmark or other official designation indicating cultural significance. A summary of this effort and copies of representative communications are provided in Appendix B. No information regarding cultural resources that could be affected by the Project was received because of this effort.

Nevada County Landmark Commission

Consultation with NCHLC identified the Site of the Idaho-Maryland Mine (documented as California Point of Historical Interest No. 640 and Nevada County Historical Landmark No. 33) adjacent to the APE/Project Limits. The Idaho-Maryland Mine was designated a California Point of Historical Interest (P640) and Nevada County Historical Landmark (NEV-33) in 1984, based on an application submitted to the California State Office of Historic Preservation by Nevada County Board of Supervisors Chairman Ilse Barnhart and its inclusion in *Exploring Nevada County* (Nevada County 2010:66). InContext conducted the following additional research regarding California Point of Historical Interest No. 640 and NEV-33:

- Reviewed California State Office of Historic Preservation's (OHP) Historic Property Data file for Nevada County that was provided as a result of the records search and cited as CA OHP 2012a;
- reviewed the OHP's online listings of NRHP, CRHR, State Historic Landmarks (SHL), and Points of Historical Interest (POI), which were reviewed during the Literature Review and cited as CA OHP 2013;
- discussed the OHP listings with OHP registration unit staff member, William Burg, and requested all documentation for the Idaho-Maryland Mine;
- reviewed the documentation provided by OHP registration unit staff on the Idaho-Maryland Mine;
- reviewed the Nevada County Code (Title 3, Chapter II, Article 4, Division 4.3, Section L-II 4.3.6) regarding Cultural Resources;
- reviewed Nevada County Board of Supervisors Resolution No. 69-102 (Nevada County 1969);
- reviewed Nevada County Historical Landmarks Commission Constitution and Bylaws (Nevada County 2000)
- reviewed historical Nevada County Historical Landmarks Commission meeting notes from 1984 online;
- reviewed minutes of the Nevada County Historical Landmarks Commission meetings notes dated April 17, 2020;
- reviewed "Exploring Nevada County: An Illustrated Guide to Local Landmarks and Historic Sites";
- discussed and addressed the Commission comments via phone on October 21, 2020 with Gage McKinney, local historian and consultant to the Commission;
- reviewed results of a Public Records Act request submitted by Mitchell Chadwick, representative of Rise Grass Valley Inc.[3]

The location of NEV-33 is identified as the hillside area adjacent to Centennial Drive and Whispering Pines Lane, south of Idaho-Maryland Road, Grass Valley (see Figure 5). This description coincides with the western locus of P-29-1447, which is outside the APE/Project Limits (see Figure 5). The description of NEV-33 is:

> *The Idaho quartz mine was discovered in 1863. It prospered under the Coleman brothers from 1867-93, then consolidated with the Maryland and other small mines. Eventually, it became one*

[3] Two documents were provided by the County regarding designation of the Idaho-Maryland Mine property as a State of California, Department of Parks and recreation, Point of Historical Interest.

of the "Big Three" of the Northern Mines, the other two being the Empire and the North Star. Its final years under the management of Errol MacBoyle were very productive. He developed a revolutionary method of shaft sinking, using a huge core drill called the Newsom drilling machine. World War I and government order L208 brought about the final closing.

This county-level designation was conducted under Nevada County Ordinance 69-102, establishing the Nevada County Landmarks Commission, their duties, and the process for formal county designation through resolution by the County Board of Supervisors (Nevada County 1969). This county-level designation qualifies the Idaho-Maryland Mine as a historical resource as defined by CEQA [California Code of Regulations Section 15064.5(a)(2)] and Public Resources Code section 5020.1(k).

Because NEV-33 is considered a historical resource under CEQA and NCC, Project impacts to it must be considered when the County is determining whether to approve a project. However, NEV-33 is outside of the project APE and will not be impacted by the project. In addition, the Idaho #2 shaft ("roundhole" shaft), was confirmed outside the APE. As a result, it is appropriately not addressed as a resource that needs to be documented and evaluated for the purpose of this Project.

Pedestrian Survey

The entire APE was subject to a pedestrian survey on May 9 and 10, 2019 by two archaeologists in 20 meter transects. Approximately 80% of the ground surface has been disturbed as a result of previous mining and industrial activities and includes areas that are now graded and paved. The remaining 20% of the APE is covered by vegetation or duff. Two of the resources previously recorded no longer exist within APE (Table 3; Appendix C).

Table 3. Cultural Resources No Longer Extant within the APE

Identifier	Name
P-29-0839	Segment of NGRR
P-29-1495-H	Adits and Prospects

Five previously recorded cultural resources were confirmed within the APE (see Table 4 below, Identifier column; and Appendix D). Four previously unrecorded components (Temp-001, 005, 010, and 012) of the Idaho-Maryland Mine (P-29-1447) were also documented as a result of this study.

Table 4. Extant Cultural Resources within the APE

Identifier	Name
P-29-1447	Idaho-Maryland Mine
	Temp-001 - Concrete towers, penstock, access road
	Temp-005 - Penstocks, ditch
	Temp-010 - Mining ditch and rock feature
	Temp-012 - Mining ditch
P-29-1485-H	McPherson Ditch #1
P-29-1494	New Brunswick Mine
P-29-1496	Union Hill Mine
P-29-4634	East Bennett Road

SETTING

Unless where otherwise cited, the following is adapted from vetted previous studies of the Project vicinity (Windmiller 1995; Hull 2007; ESA 2008; Selverston 2008; Pease 2009). This context is specific to the APE and is not intended to provide a regional overview of the broader historic contexts.

Environmental

The Project area is in Grass Valley on the western slope of the Sierra Nevada, at approximately 2,600–2,900 feet above mean sea level (amsl). Wolf Creek bounds the Centennial Industrial Site to the north and South Fork Wolf Creek passes through the southwestern edge of the Brunswick Industrial Site. The surrounding terrain includes steep drainages south and east and gently sloped hills north and west. Grass Valley summers are dry and warm; winters are wet and cool. The area is laced with creeks and springs. The climate fosters a diverse array of vegetation typical of the Yellow Pine Belt community, including Jeffrey and Ponderosa pines, incense cedar, black oak, manzanita, kit-kit-dizze, western azalea, wild rose, Scotch broom, poison oak, wild iris, ferns, and California dogwood (Storer and Usinger 1963).

Geology

The Sierra Nevada is composed primarily of plutonic igneous and metamorphic rock of varying composition and age, with overlying sedimentary and volcanic rocks. The bulk of the plutonic rocks in the Sierra Nevada range are late Jurassic to late Cretaceous, as well as some Triassic and Paleozoic in the eastern and northern part of the range. Sixty percent of the exposed rock within the central Sierra Nevada range is granitic. Other deposits found in the Sierra Nevada include quartz-monzonite, granodiorite, and quartz diorite. The present landscape of the Sierra Nevada range results from erosion in the late Tertiary and Quaternary and rejuvenation primarily resulting from movement on the Sierra Nevada fault (Norris and Webb 1976).

The geology of the region includes metavolcanic, metamorphic, and granitic formations. Within the Project area, the underlying rock is principally metamorphic (serpentine), metavolcanic/igneous (gabbro), and granitic (Jenkins 1948; Burnett and Jennings 1962; Norris and Webb 1976). Grass Valley is located within the northern portion of the Mother Lode, which is a north/south trending vein where gold is embedded in host rock. This region's geology is unlike the rest of the Mother Lode belt in that it lacks large-scale faulting and the primary veins run at mild rather than steep angles (Jenkins 1948). During the historic period, the rich quartz and gold deposits of the region made it both attractive and productive for both placer and lode mining operations (Clark 1970).

The ready availability of granitic rock in the Project vicinity provided raw material for grinding tools used by prehistoric people to process plant foods, such as acorns and seeds. The granitic and metamorphic rocks native to this region are not well suited for manufacturing flaked stone technology (projectile points, cutting and scraping tools); therefore, prehistoric people would instead trade with neighboring groups for lithic tools or the raw material needed to create them (Hull 2007).

Soils

Soils in the Project area are primarily of the Aiken and Cohasset series (UC Davis Soil Resource Laboratory 2005). Soils of the Aiken series reach 12 inches deep and are derived from weathered volcanics. They are well-drained colluvium with moderate to strong acidity (pH 6.0–4.8). Soils of the Cohasset series are also from weathered volcanics. These soils reach 24 inches deep and consist of deep, well-drained, fine-loamy soils with slight to strong acidity (pH 6.1–5.0). The high density of hydrological features in the area combined with occasional winter snowpack and steep terrain subject the soils to a high level of erosion. This set of conditions translates into low likelihood for preservation of intact subsurface archaeological deposits, and high likelihood for surface archaeological deposits to be displaced from their original context.

Cultural

Prehistory

The earliest evidence of human occupation in the Sierra Nevada dates to the Terminal Pleistocene and Early Holocene (12,000–8,000 B.P.), although archaeological finds from this timeframe are few, sparse, and have typically been limited to isolated stemmed points at high elevations. Sites from this time indicate a semi-sedentary lifeway, small group size, and subsistence focused on large game hunting. Large-stemmed and corner-notched projectile points made of local basalt are common in these early assemblages, although obsidian obtained through trade with the people of the Great Basin and California Coast Ranges has been documented.

Early and middle Holocene (8,000–5,000 B.P.) lifeways focused on hunting, with small and semi-sedentary social groups. Middle to late Holocene (5,000–2,000 B.P) archaeological patterns show an increase in population and economic intensification, demonstrated by an increase in settlement size; reliance on small game and labor-intensive vegetal resources, such as seeds and nuts; food storage pits; bow and arrow technology; and increased trade of obsidian and shell beads with groups to the east and west.

Late Period (2,000–450 B.P.) archaeological patterns reflect a waning population along the western slope of the Sierra Nevada from 1,450 to 700 B.P. Whether this shift was a results of changing land use practices or an actual demographic swing is a matter of debate. From 700 B.P. to approximately the time of European contact, the population appears to increase again, and lifeways were centered on a plant-based diet.

Ethnography

The project area is traditionally Hill Nisenan territory, who are sometimes referred to as Southern Maidu (Kroeber 1925; Wilson and Towne 1978). The Nisenan are a Maiduan-speaking people who settled in villages along major waterways, ridges, and flats. Settlements were typically organized around a central village, with family groups building homes apart from the main hub. Winter homes were conical and constructed from skins, bark slabs, and brush, while summer residences were typically brush structures. Villages tended to be located near large bedrock outcrops suitable for creating bedrock mortars used to process acorns and other plant foods, as well as small animals.

[redacted] No prehistoric archaeological sites or localities have been recorded in the immediate vicinity of the project (Moratto 1984). The lack of recorded prehistoric sites in the area can be attributed largely to the impacts of Euroamerican incursion into Grass Valley. Traditional lifeways were disrupted, and Native people displaced with the onset of the Gold Rush in the mid-nineteenth century.

History

Grass Valley Mining District and California Gold Production

Gold mining in the Grass Valley area began in 1848 when placer gold was discovered in Wolf Creek, but the region is best known for its high producing hard-rock (lode) mines that were productive from the 1860s through the 1950s. Although lode mining began in Grass Valley in the 1850s, it did not develop in earnest until after the Comstock rush ended in 1865 (Clark 1970). Eventually, the Grass Valley Mining District[4] (District) was the most productive gold-bearing area in California (Figure 6).

Gold production from the late 1860s to 1950s in the Grass Valley District paralleled production throughout the state, but in much higher numbers. A steady increase began in the late 1860s with an infusion of capital. Another boost occurred from technological advances in the 1890s. With WWI came prosperity and higher costs of production, which slowed output. Then with the Great Depression, production costs decreased, increasing output. The 10-year span from 1930 to 1940 demonstrated a remarkable abundance within the District; nearly 2.2 million tons of ore were produced, yielded $26.76 million. During WWII, the United States forced shut down of mines as non-essential to the war effort. An attempt was made after the shutdown was lifted after the war, but higher production costs again stunted output until many mines, including the largest mines in Grass Valley, closed in 1956 (Clark 1970).

In the late 1860s, Nevada City and Grass Valley business owners began advocating at the state and federal levels for a railroad to connect their business interests with the Central Pacific Railroad. Mine operations needed a continuous supply of timber to fuel the boilers that supplied energy to the mines, and the train line helped bring more timber. On March 25, 1874, the state legislature approved the bill allowing the CNGR between Nevada City and Colfax. Construction was completed in April 1876. The railroad did help develop other economic opportunities within the region, such as the fruit packing plants and lumber mills that ran along the railroad; however, NCNGR's main goal remained the support of the local quartz mines (Fickewirth 1992; Levy 2012).

The railroad route followed what is now East Bennet Road to the north bank of South Fork Wolf Creek, crossing the Union Hill Mine and New Brunswick Mine parcels. Passenger travel on the rail line stopped in 1938, and operations ceased completely in 1942 at the onset of WWII. By the following year, only the grade remained because the entire line had been sold for scrap.

[4] "District" in this case refers to the gold mining district, not a NRHP-eligible historic property.

PROJECT-SPECIFIC HISTORIC CONTEXT

The purpose of the Historic Context is to provide the thematic perspective by which identified cultural resources may have historic significance as defined by the NRHP and CRHR. This context is applied when evaluating the resource(s) for NRHP and CRHR eligibility, presented in the section of this report entitled Determination of Eligibility. The applicable historic theme for cultural resources in the project area is historic lode mining in Grass Valley, specifically that associated with the Idaho-Maryland Consolidated Mines, Inc.

Idaho-Maryland Consolidated Mines, Inc.

The Idaho-Maryland Mine property was identified as a lucrative gold-bearing parcel in 1851. Today, the Idaho-Maryland Mine is a consolidation of several of the important early day producing mines in the District, including the Eureka, Idaho, Maryland, Brunswick, and Union Hill Mines. The following historic context draws heavily from the history developed by Rise Gold Corporation (2019), Wolflin (1941), Clark (1970), Windmiller (1995), and Clark (2005).

Early Development (1860–1890)

This period is characterized by steady growth in the number of mine claims, the expansion of underground and surface level operations, and production of those mines. The end of this period marks the sale of the Idaho Mine and the shift to the consolidation of the mines. In the early years of underground mining, the District had small claims that made it difficult to pay for equipment; therefore, the claims could not be worked. However, after 1860 the depths and production of the mines increased because of the newer technology and engineering purchased from the new capital. Underground mining requires technical engineering and the ability to design the infrastructure above and below ground. Many of the first mine builders depended upon Cornish miners to design and build this infrastructure; however, as the mines got deeper, more improvements were necessary and mining engineers were needed. Later mining operations began using power drills, nitroglycerine-based dynamite, and hydraulics which further increased mining production. The surface level of the mines continually changed, depending on the need of the underground, although the structure of the underground, other than additional mining, remained.

Idaho Mine (ca. 1850-1893)

The Idaho vein, which stemmed from the eastern extension of the Eureka vein, was discovered in the bed of Wolf Creek about 1.5 miles east of downtown Grass Valley during the Gold Rush (1848-1852). The claim was not recorded until a rich strike was made here in 1863. Two years later, discovery of high yielding ore within the claim prompted several investors to finance large-scale mining production. However, this initial capitalization of the Idaho Mine failed and the mine was purchased by the Coleman Brothers, who sold their North Star Mine, in 1867. The Coleman's Idaho Quartz Mining Company sunk a shaft to 300 feet and ran into the eastern extension of the Eureka-Idaho Ore Shoot. In 1881, he Idaho mine reached a vertical depth of 1200 feet, which no other gold mine in California had reached.

The Idaho Mine was considered one of the most up-to-date mines in the industry. In 1868, the Idaho Quartz Mining Company finished constructing a stamp mill at the Idaho Mine. That year, 763 tons of ore were milled, yielding $13,978 from the newly built stamp mill. In 1877, the timber in much of the 200-foot level had to be completely replaced. The mill property comprised an office, mill, buddle house, machine shop, drain tunnel, sulphurets house, tailings sluices, rocker house, pump house, hoisting works, blacksmith shop, waste rock track, air shaft, water ditch, NGRR, and roads to Hills Flat and Grass Valley. Hydraulic Mining ended in 1882, which allowed water supplies to serve other needs. The Idaho Mine installed Pelton wheels and contracted with South Yuba Water Company to supply water to the mine. Steam power switched to waterpower in 1883 and proved beneficial both operationally and economically. The Idaho Mine was the leading quartz mine in California from 1869 to 1892. The Idaho Quartz Mining Company worked this same pay shoot until 1893, when operations halted because the mine reached its claim boundary to the east.

Eureka Mine (1851-1877)

Discovered in February 1851, the Eureka Mine was located on the north side of Wolf Creek 1/4 mile east of Grass Valley and was one of the earliest quartz mining locations in the District. In 1863, the vertical shaft was sunk to a depth of 100 feet, leading to the discovery of a rich ore shaft that averaged $28/ton. As the levels of the mine grew, so did the quality of the ore. At the 600-foot level and more than 3 feet wide, the ore value averaged $50/ton. The Eureka Mine was the largest producer of quartz gold in California and in the United States from 1866 to 1871 but closed in 1877.

Maryland Mine (1865-1893)

The Maryland Mine was located June 1865, west of the Idaho claim. Substantial work of the claim did not occur until 1880. In 1890, the underground workings of the Idaho and Maryland mines met, prompting a lawsuit to determine the boundary between the two properties. A compromise boundary was agreed upon and three years later the Idaho workings reached this line. The Coleman brothers then sold the Idaho mine to the Maryland Gold Quartz Mining Company, who took possession in 1893.

Union Hill Mine (1860-1900)

The Union Hill Gold Quartz Mine claim, which intersects the current project area, was made in 1866. It operated successfully until 1870, when a decline in the mining industry forced the closure of most area mines, except the Idaho-Maryland and Empire Mines. In 1900, the mine reopened and was purchased by the Idaho-Maryland Mines Company in 1918.

Brunswick Mine (ca. 1880-1919)

The exact date the Brunswick Mine was founded is unknown, but it was during the mid-1800s. In 1888, the Brunswick Mine was worked only to a depth of 300 feet in the Old Brunswick shaft. Eventually, the three-compartment incline shaft reached depths of 700 feet and continued to 1250 feet, where the Brunswick Consolidated Gold Mining Company found good-quality ore in 1896. The owners constructed a

new vertical shaft – New Brunswick – in 1915. They also built a steel headframe and completed a twenty-stamp mill and cyanide plant. The method of treating and handling the ore improved and kept operating costs low.

Consolidation (1890–1919)

This period is characterized by monetary instability and several exchanges of ownership among the mines, followed by closures from lack of capital and later WWI. The end of this period marks the consolidation and reopening of the mines under new ownership; the Idaho-Maryland Mines Company.

A lawsuit in 1890 between the Idaho Quartz Mining Company and the Maryland Gold Quartz Mining Company determined the boundary line for the two mine properties. When the Idaho Mine reached the compromise line in 1893, with no other ore bodies found that would call for further operations, the Coleman brothers decided to sell the mine. They sold the Idaho claim to the Maryland Gold Mining Company for $85,000 in April 1893. Dual management of the Idaho-Maryland Mine began on May 1, 1893, but the company name remained Maryland Gold Quartz Mining Company. Furthermore, because both the Idaho and Maryland Mines remained open, more than 200 miners within the Grass Valley area kept their jobs. A layoff that large would have had profound effects on a community of that size.

In 1894, the Maryland Gold Quartz Mining Co. purchased the Idaho Quartz Company and its Idaho mine. The name then changed to Idaho-Maryland Mine and soon afterward the Dorsey (#2) vein was discovered. The Idaho-Maryland Mine closed in 1901 due to a lack of funds. The total production of gold from 1894 to 1901 was 60,282 ounces (roughly 3,768 pounds). The Idaho-Maryland Mine bonded to the Idaho-Maryland Development Company in 1902. The company owners sought gold production from the upper levels of the mine because they needed to complete surface repairs, dewatering, and shaft retimbering. At the beginning of WWI, the Idaho- Maryland Development Company ceased its mining operations.

The Idaho-Maryland Mine's underground operations closed in February 1901 from lack of capital, tripling ore costs, milling costs, and poor conditions of the underground workings. The closing of the underground mining operation at the Idaho-Maryland Mine ended 44 years of nonstop mining for gold within that location. Samuel P. Dorsey did keep the surface level working intact and he actively promoted the property to attract capital investors. In late 1902, a group of men from Boston expressed interest in the claim and sent a mining engineer to Grass Valley. The engineer's report returned favorable to the men, leading to the establishment of the Idaho-Maryland Development Company. The mine needed more work than estimated to reopen, and the group made some repairs to the surface level and pumped the water from the underground workings of the mine. Despite these efforts, the Idaho-Maryland Development Company ceased operations in October 1914 at the beginning of WWI and the mine filled with water.

Errol MacBoyle, a well-known mining engineer from San Francisco, found interest in the Idaho-Maryland Mine and compiled a report. In his report, MacBoyle determined that the mine held much larger amounts

of riches than the $19,000,000 it had generated to earlier owners. He also considered the benefits of combining all the surrounding mines with the Idaho-Maryland Mine. MacBoyle first received options from the South Idaho Consolidated Mining Company, Gold Point Gold Mining Company, and Black Hawk Mine. To further his plans to combine the mines, MacBoyle formed a syndicate to obtain the Union Hill Mine. Gold Point Consolidated Mines, Inc., was created to handle the purchases of more properties, but in 1917, Metals Exploration Company took over Gold Point Consolidated Mines, Inc. After months of negotiations, Metals Exploration Company leased the Black Hawk, Eureka, Gold Point, Roanaise, South Idaho, Union Hill mines, and several other claims with the option to buy each. Samuel P. Dorsey purchased the Idaho-Maryland Mine in late 1919 for $187,692.50, paving the way for the Metals Exploration Company to secure the funds necessary to reopen the mines. The company named the new project the Idaho– Maryland Mines Company.

WWI – 1957

This period is characterized by vacillating decades of high production costs/low gold production and low production costs/high gold production. The end of this period also marks the closing of the large lode mines in the Grass Valley Mining District, which have yet to recover.

The Eureka Mine reopened in 1920 and several years of production followed the consolidation. In 1925, the Idaho-Maryland Mine closed. Errol MacBoyle sought the funds necessary to continue operating the pumps so that the mine would not fill with water. Tributers or men who leased a part of the claim to mine kept the mine operating.

In the 1930s and 1940s, the Idaho-Maryland Mine was the second-largest underground gold mine in California behind the Empire Mine and was extremely active and productive. Between 1930 and 1940, the Idaho-Maryland and Brunswick Mines yielded 2,186,381 tons of ore, equating to $26.76 million in extracted materials; additionally, the Idaho-Maryland Mine developed a new method of sinking shafts and core drilling[5]. On July 1, 1933, the Idaho-Maryland Mines Company leased the Brunswick Mine from the Idaho Consolidated Mines, Inc. for 5 years. By 1934, the underground workings of the Idaho-Maryland Mine extended more than 8,000 feet from the main shaft. To supply better ventilation and another exit, the decision was made to sink another shaft closer to the underground operations. The location for the shaft was near the intersection of Brunswick and Idaho-Maryland Roads, which proved problematic from a geological standpoint because the rock formations consisted of serpentine, gouge, ankerite, and gabbro. To run a conventional shaft that could drill and blast in that location would have needed a vast amount of timber and constant upkeep, which would add to the cost. The shaft would not need to hoist ore or waste rock, so they tried using a 60-inch-diameter experimental, single compartment, core drill that J. Branner Newsome constructed at the Idaho-Maryland shop. They called the No. 2 shaft the "Round Hole" shaft, and with the use of the drill, advanced the shaft 173 feet in 1934.

[5] In 1939 and 1940, the Idaho-Maryland Mine Co. took over operations of the Empire Star (a combination of the Empire and North Star mines.

The Idaho-Maryland Consolidated Mines, Inc. merged with its operating company Idaho-Maryland Mines Company in 1935 and then changed the name to Idaho-Maryland Mines Corporation. Operations, including the Idaho shaft and the New Brunswick, produced 293,975 tons of ore in 1936. In 1939, the Idaho-Maryland Mines Corporation experienced the largest gold production of any quartz mine in California and remained the second-largest gold mine in the United States. The mine kept these leading numbers for several years as a direct result of the output from the Idaho- Maryland Mine, and other Grass Valley area mines they controlled including the Brunswick Mine. The Brunswick Mine added to the Idaho-Maryland Mine's production numbers, which peaked in 1941 (Wolflin 1941).

Further improvements to the New Brunswick Mine in 1940 included deeper shafts and, in turn, an increase in ore production, which required increasing the headframe size and hoisting capabilities. The owners of the surface plant for New Brunswick bought a 1,000-horsepower water drum from the Los Angeles Metropolitan Water District. The hoist had 8-foot-diameter drums with a 60-inch face that could hold 4,800 feet of cable. The cement piers, foundations, and drum pits were constructed, and the large hoist installed during summer. Concrete floors were poured and an all-steel building, 56 x 60 x 15 feet high, was built over the hoist. The new hoist room was constructed north of the three-compartment shaft, and the regularly used hoist was on the south side.

Errol MacBoyle was significant in Grass Valley history. The mines produced over 2 million tons of material from the time MacBoyle took over the mine in 1926 until the early 1940s. On October 8, 1942, the War Production Board issued Limitation Order L-208, closing many of the top United States gold mines, including the Idaho-Maryland which was at the peak of production. Mining resumed after the war but without the prior success under MacBoyle's supervision.

MacBoyle contributed resources to the Grass Valley area, including an airstrip that he allowed the National Guard to use for training. The government closed the airstrip during WWII and dug ditches across the field, effectively ruining the airstrip. In 1936, MacBoyle formed the Grass Valley Memorial Hospital Association and built a hospital to 80 percent completion, but when WWII began, obtaining added materials proved too difficult and monetary funding stopped. MacBoyle believed in supplying jobs, and because of him, the mines stayed active and he supplied construction jobs; therefore, the residents of the Grass Valley area did not feel the effects of the Great Depression as severely as the rest of the country. MacBoyle passed away in his sleep in 1947 after battling an illness that followed a stroke in 1943 (McKinney 2016).

For the first time in 105 years, in 1956, all Grass Valley area mines stopped running. The stamp mills halted, and a deafening quiet fell over the town. In December 1955, the Idaho-Maryland Miners Corporation ceased gold mining operations and switched to mining only tungsten. The Empire and North Star Mines Company, Ltd. closed on July 5, 1956. The estimated worth of the total yield of the lode mines was $300 million. The Empire-Star Mine produced $130 million and the Idaho- Maryland Mine produced $70 million, making them the two largest mining operations in California and among the largest in the United States. The equipment at the New Brunswick and Idaho-Maryland Mines sold at auction in March 1957 to help offset delinquent taxes. The Grass Valley and Nevada City area mines not only transformed the local area environmentally and economically, but quartz gold from the Sierra foothills changed the nation as well.

Summary

The history of the District and lode mining reflects the broader trends and conditions of the times in local, state, and United States society from 1866 to 1957. With the discovery of gold in the area in 1848, mining changed the landscape of the Sierra foothills and made some of the Grass Valley District Mines top gold producing mines in the state and country. The General Mining Act of 1872 allowed miners, or anyone else, to patent mineral rights, in the same way farmers could claim settlements under the Homestead Act of 1862. The General Mining Act sparked a small boom in gold production in the later 1800s.

Most developments of new mining techniques and equipment originated in the Grass Valley and Nevada County Mining Districts, including hydraulic mining, which originated from ground sluicing. In 1867 there were thirty stamp mills operating and roughly 1,600 men working in the mining industry in the Grass Valley area. Power drills and nitroglycerine-based dynamite replaced hand drills and black power in 1868. A new steel headframe, a 20-stamp mill, and a cyanide plant were in place at the Idaho-Maryland Mine in 1915; by 1919, a new hoist and Ingersoll-Rand compressor were installed together, powered by electricity. The Idaho-Maryland Mine property also housed a machine shop and carpenter shop. J. Branner Newsome fabricated a core drill at the Idaho-Maryland Shop in 1934 to help offset the amount of timber needed to get through the hard rock material. The new mining equipment that developed from need within the Grass Valley District mines contributed to some of the advancements of the Gilded Age. The surface level of the mine property constantly changed to remain updated and in working order to assist with the underground workings of the mine; however, the underground parts of the mine remained the same over time, except for timber being replaced as needed and further digging.

The District, as well as the Idaho-Maryland Mine, experienced many fluxes from 1848 to 1957. Between 1856 and 1860, there was a minor nationwide economic depression. Many continued placer mining even though the work became increasingly more complicated than simple panning or rocking for gold. Gold mining consistently increases during slow economic cycles. The decline shows the pull of other strikes, other occupations, and some miners simply giving up and going home; however, the District's gold mining influence increased from 71% of the population engaged in mining in 1850 to 76% in 1860. A worldwide economic depression from 1893 to 1896 contributed to a gold boom sparked by technological advancements and the production of gold climbed steadily. The Grass Valley region would have suffered negative economic effects of the first depression had the mines not employed such a sizable part of the community. The Great Depression brought the final boom of historic gold mining in the Grass Valley region and between 1930 to 1940 the Idaho and Brunswick Mines produced enormous amounts of ore. By 1941, there were 973 employees working at the Idaho-Maryland and Brunswick Mines.

Gold mining not only changed the Grass Valley area and California, as exporting gold created ripple effects throughout the United States. The landscape of the Sierra foothills changed from the amount of timber used for steam power. The mines, including the Idaho-Maryland Mine, used NGRR to haul in timber form other locations thus changing the landscape in the other locations as well. The District faced wartime decreases in production and government shutdowns during both WWI and WWII. The District also reflects the same development, decline, and resurgence patterns that the United States experienced during several economic recessions and booms throughout the ninetieth and twentieth-centuries.

Cultural Resources within the Area of Potential Effects

Idaho-Maryland Mine (P-29-1447)

The Idaho-Maryland Mine has also been subject to several recordings from 1983 to 2016 (Decater et al. 1983; Decater 1984; Ferrier 1993; Napton and Greathouse 1994; Jensen 1995; Pappas 2009; and Darcangelo and Engbring 2016), resulting in a set of DPR forms that is 37 pages and a recorded site boundary that does not encompass all its features.

The first recording in 1983 identified resources [redacted] The 1983 features are located [redacted]. The resource was subsequently updated to include features in the [redacted]. Later, additional updates were made to include portions of an earthen ditch [redacted]. Updates in 1994 added features to the [redacted]. The Information Center identifies the site boundary to include the [redacted].

The field survey of May 2019 confirmed that none of the previously recorded features of P-29-1447 are within the current project APE; however, the newly recorded resources (Temp-001, 005, 010, and 012) are most likely part of the [redacted] One of the objectives of the addendum report will be to determine whether these are associated with the Idaho-Maryland Mine complex and whether a new site boundary and location map are necessary.

Temp-001

Temp-001 consists of three mining features—two concrete towers approximately 30 and 40 feet tall, and a section of 4-foot-diameter riveted pipe (Appendix D). These features may be associated with the historic Idaho-Maryland Mine.

Temp-005

Temp-005 consists of two 1-foot-diameter pipe segments that are partially underground, two short earthen ditch segments, and an earthen pile of unknown function (Appendix D). These features may be associated with the historic Idaho-Maryland Mine.

Temp-010

Temp-010 consists of a segment of an abandoned mining ditch (Appendix D). The ditch was obliterated by [redacted]. It is 5 feet wide and 2 feet deep, running east/west. A rock pile near the western end of the ditch was also recorded (CTX- 011).

Temp-012

Temp-012 consists of a segment of an abandoned mining ditch (Appendix D). The ditch was obliterated in [redacted], and was undiscernible in dense vegetation at the north end. It is 8 to 10 feet wide and 3 feet deep, running mostly north/south with a curve.

McPherson Ditch #1 (P-29-1485-H)

McPherson Ditch #1 was subject to one recording (Furry and Jensen 1991). This resource was described as an unlined, bell-shaped ditch approximately 4–6 feet wide and 2–3 feet deep, which [redacted] No artifact concentrations or features were associated with the ditch. As of 2019, the segment of the ditch in the current project APE was still visible on the landscape.

New Brunswick Mine (P-29-1494)

The New Brunswick Mine was subject to one thorough recording (Russell and Cook 1994). The recording identifies 10 feature loci consisting of the following: A) concrete footings; B) concrete ore bins; C) mine shaft capped with concrete; D) concrete basement foundation; E) concrete footings, foundations, and slurry ponds; F) concrete slab and foundation; G) concrete slab and foundations; H) headframe foundation and footings; I) concrete foundation; and J) concrete foundations. Windmiller also explained that historic materials from the Bohemia Lumber Mill (ca. 1956) appeared scattered throughout the site.

The most prominent feature of the site was the tall concrete headframe (Feature H). Windmiller provided a concise history of the mine, a photo log listing 24 photographs, a scaled sketch map of features A through I, and a copy of a hand-drawn map of the site that had been completed ca. 1956 from information from a former mine employee. During the survey of May 2019, only the headframe (tall concrete tower) and shaft remained. All other features appeared to have been obliterated from the site.

Union Hill Mine (P-29-1496)

The Union Hill Mine site was recorded as consisting of seven foundations/pads, one mine shaft, two tailings piles, and an access road (Windmiller 1995). During the May 2019 survey, all previously recorded features were relocated, conforming to the site record and sketch map; however, the site is now overgrown with blackberry bushes.

East Bennett Road (P-29-4634)

East Bennett Road is part of a historic route that is within the current APE. It was recorded in 2016 as a modern paved road with four features within APE. These features consist of one concrete culvert/bridge stamped with "WPA", indicating that it was constructed by the Works Progress Administration that existed from 1935 to 1943. The three other features consist of two rudimentary masonry culverts and one locus with three separate short segments of dry-laid rock wall. During the survey of May 2019, the road was observed as modern and maintained; and each of the four features was relocated and observed in the same condition as that described in 2016.

Underground Workings of the Idaho-Maryland Mines Company

A major physical component of the historic Idaho-Maryland Mine Company is the underground workings of the mine, which begin at 500 feet below current grade and extend to a depth of 3280 feet (Pease 2009). Figure 3 shows the horizontal extent of underground workings depicted on the surface. A thorough documentation of their current configuration and condition is not possible because it is prohibited to enter the underground workings of the mine; and it is infeasible to do so because they are flooded. As a result, we must rely on the most recent mapping of the underground workings (Figure 4).

Idaho-Maryland Historic District

Four of the described above—P-29-1447, P-29-1494, P-29-1496, and the Underground Workings—are part of the Idaho-Maryland Mine Company. Because of this shared association, it is most appropriate to consider these resources as part of an Assumed NRHP-eligible historic district (Historic District), which is reflected in the Project-Specific Historic Context. This Historic District is proposed as the Idaho-Maryland Mine Historic District and is considered as such for the purpose of this project.

DETERMINATION OF ELIGIBILITY

To determine if a project will have an adverse impact or effect to significant cultural resources, the resources within the APE or project limits must first be evaluated to determine if they are *historic properties* as defined by Section 106 and *historical resources* as defined by CEQA. This determination is made by evaluating the cultural resources within APE for their eligibility for listing in CRHR (for CEQA) and NRHP (for Section 106). The process of evaluation first determines whether the resources are significant under each of the eligibility criterion (see below). If the resource is significant, it is then assessed for its historic integrity. If a resource is significant and has historic integrity, it is eligible for listing on CRHR or NRHP. Although CRHR and NRHP vary slightly in language, in practice, they are virtually the same because CRHR was modeled after NRHP and NRHP provides for local significance.

CEQA Guidelines (California Code of Regulations section 15064.5) also provides for other methods of determining whether a resource is a historical resource, as follows:

1) A resource included in a local register of historical resources, as defined in Public Resources Code section 5020.1(k), which states:
   "Local register of historical resources" means a list of properties officially designated or recognized as historically significant by a local government pursuant to a local ordinance or resolution
2) A resource identified as significant in an historical resource survey meeting the requirements of PRC section 5024.1(g), which states:
   A resource identified as significant in an historical resource survey may be listed in the California Register if the survey meets all of the following criteria: (1) The survey has been or will be included in the State Historic Resources Inventory; (2) The survey and the survey documentation were prepared in accordance with office procedures and requirements; (3) The resource is evaluated and determined by the office to have a significance rating of Category 1 to 5 on DPR Form 523. (4) If the survey is five or more years old at the time of its nomination for inclusion in the California Register, the survey is updated to identify historical resources which have become eligible or ineligible due to changed circumstances or further documentation and those which have been demolished or altered in a manner that substantially diminishes the significance of the resource.
3) The lead agency determines the resource to be significant as supported by substantial evidence in light of the whole record (CCR, Title 14, Division 6, Chapter 3, section 15064.5(a)).

The Site of the Idaho-Maryland Mine (NEV-33) meets the first definition of a historic resource presented above because it was officially designated and recognized as historically significant by Nevada County pursuant to NCC Sec. L-II 4.3.6 B.2 and 11 and County Board of Supervisors Resolution 69-102. Although NEV-33 is outside the APE and will not be directly impacted by the project, it is considered as part of the Historic District and impacts to the Historic District are considered.
The Public Resources Code that established the CRHR also states that the following shall be included in the CRHR (PRC 5024.1(d):

1. Resources formally determined eligible for, or listed in, the National Register of Historic Places through federal preservation programs administered by the Office of Historic Preservation, including the National Register program; the Tax Certification program; National Historic Preservation Act Section 106 reviews of federal undertakings;
2. State Historical Landmarks (SHL) numbered 770 or higher; and
3. Points of Historical Interest (PHI) recommended for listing in the California Register by the State Historical Resources Commission.

For the purpose of this document, items 1-3 above are referred to as CRHR Inclusions 1, 2, and 3. None of these apply to resources affected by the current Project

As stated above, both NRHP and CRHR eligibility have two steps. The first is to determine significance. If a resource is significant, its historical integrity is then assessed. Significance plus integrity equals eligibility. The following section provides the criteria used to determine significance and integrity.

Significance

Regardless of the way in which a cultural resource is identified as significant or a historical resource under CEQA for a project, CEQA requires an assessment to determine if the Project will result in a significant impact. CEQA defines a significant impact to a historical resource if its significance is materially impaired. To determine if the significance is materially impaired, it is necessary to determine what materials (physical aspects) of the historical resource are present that convey its historical significance; this ties to historic integrity, which in turn is dependent on the reasons the resource is significant. A cultural resource is significant if it meets any of the criteria (NRHP a-d; CRHR 1-4) listed in the Table 5 below.

Table 5. NRHP and CRHR Significance Criteria

NRHP	CRHR
a) is associated with events that have made a significant contribution to the broad patterns of our history	1) is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage
b) is associated with the lives of persons significant in our past	2) is associated with the lives of persons important in our past
c) embodies the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction	3) embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values
d) has yielded, or may be likely to yield, information important in prehistory or history	4) has yielded, or may be likely to yield, information important in prehistory or history

Integrity

To be eligible for listing in the NRHP or CRHR, a cultural resource must meet one of the significance criteria and have historical integrity. Integrity refers to the authenticity of the resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance. In other words, the resource must retain enough of the physical characteristics to be recognizable as it occurred during its period of significance. Integrity must also be judged in reference to the particular criteria under which it is significant; specific aspects of integrity are required for properties to convey specific types of significance. The aspects of integrity a specific resource retains is referred to as its qualifying characteristics. There are seven aspects of integrity, as presented in Table 6 below.

Table 6. Aspects of Historical Integrity

Aspect	Definition
Location	The place where the cultural resource was constructed or where the historic event occurred.
Setting	The physical environment of a cultural resource as it relates to the character of the location and its surrounding features or open space as it was during the period of significance.
Design	The combination of elements that were used to purposefully create the form, plan, space, structure, and style of a cultural resource.
Materials	The physical elements that were combined or deposited in a particular pattern or configuration during the period of significance to form the cultural resource. Materials reflect choice (influenced by tradition or culture) and availability (influenced by region or trade).
Workmanship	The physical evidence of the crafts of a particular culture or people (such as construction methods or techniques) during the period of significance.
Feeling	The physical features that together express the aesthetic sense of the period of significance and the absence of physical features that detract from this aesthetic sense.
Association	The physical features that can be directly linked to an important historic event or the reasons for which a historic person is significant.

NRHP and CRHR Evaluation of Cultural Resources in APE

Five cultural resources have been identified as extant within the APE and project limits: the Idaho-Maryland Mine, New Brunswick Mine, Union Hill Mine, underground workings of the Idaho-Maryland Mine Co, the McPherson Ditch #1, and East Bennett Road. These resources are described in the preceding section and summarized in Table 7 below. All other previously documented resources that no longer have a visible physical representation in APE are not eligible for listing in NRHP or CRHR under any criterion and need not be considered further.

Idaho-Maryland Historic District

The Historic District is considered as including the Eureka Mine, Idaho-Maryland mine, the New Brunswick Mine, the Old Brunswick Mine, the Union Hill Mine, and the underground workings for all of these mines combined that were continued under the Idaho-Maryland Mine Company. Many of the potential physical remains of this Historic District extend outside APE. However, portions of some of these historic mines are within the APE as described in Table 7 below.

Table 7. Description and Thematic Associations of Extant Cultural Resources in the APE

Cultural Resource	Number	Description	Historic/Thematic Association
Idaho-Maryland Mine	P-29-1447	Temp-001: Concrete towers, penstock, access road	Idaho-Maryland Mine Co.
		Temp-005: Penstocks, ditch	
		Temp-010: Mining ditch and rock feature	
		Temp-012: Mining ditch	
New Brunswick Mine	P-29-1494	Only the tower and shaft remain	
Union Hill Mine	P-29-1496	7 concrete foundations/pads, 1 mine shaft, 2 tailings piles, access road in an area overgrown with blackberry bushes	
Underground Workings of Idaho-Maryland Mine Co.	**n/a**	Inaccessible shafts and tunnels, constructed supports, and associated hardware and machinery	
McPherson Ditch #1	P-29-1485	Earthen ditch	Water conveyance
East Bennett Road	P-29-4634	Historic route improved for modern use. 4 historic features within APE: 1 WPA concrete culvert; 2 rudimentary masonry culverts, locus with 3 dry-laid rock wall segments	Transportation

It is beyond the scope of this study to document and evaluate all of the components that may compose the proposed district or delineate its boundaries; and neither CEQA nor Section 106 require the establishment of an NRHP historic district, even if one is identified and considered eligible. However, for the purposes of this undertaking, the Idaho-Maryland Mine Historic District is considered significant under all of the NRHP and CRHR criteria, as demonstrated by the application of the NRHP and CRHR criteria that follows.

NRHP/CRHR A/1: The Idaho-Maryland Mine Historic District played a prominent role as one of the major lode mines in the District that operated from 1866 to 1956.

NRHP/CRHR B/2: The Idaho-Maryland Mine Historic District is associated with the Coleman brothers and with Errol MacBoyle, who made significant contributions to local history through their development of the Idaho-Maryland Mine, and MacBoyle's community projects.

NRHP/CRHR C/3: The Idaho-Maryland Mine Historic District embodies the distinctive characteristics of the hard-rock mining industry between 1866 and 1956 in the District through its extant underground workings, which also embody the distinctive construction method of the timbering support system. The Idaho-Maryland Mine Historic District also represents a significant and distinguishable entity whose components lack individual distinction [NRHP].

NRHP/CRHR D/4: The Idaho-Maryland Mine Historic District has the potential to yield information important to history of the local area, California, and the nation through its possible archaeological deposits associated with workers, who represent the working labor class of miners locally and of the industrial age nationally.

Each individual cultural resource can then be evaluated to determine whether it is eligible for listing under each criterion, which depends on the ability for each resource to convey the criterion of significance. As explained in the previous section, the ability to convey significance rests on the resource's historic integrity, which is expressed as location, design, setting, materials, workmanship, feeling, and association (explained above).

Idaho-Maryland Mine (P-29-1447)

The Idaho-Maryland Mine has been recorded as P-29-1447 with three major components. [redacted] Resources within APE are associated with newly recorded features of the western loci of P-29-1447.

Four components of P-29-1447 were identified within APE, all part of what is referred to as the western locus. These four components consist of the following resources: two concrete towers 30 and 40 feet tall, a section of 4-foot-diameter riveted pipe, two 1-foot-diameter pipe segments, four discontiguous segments of earthen ditch, and an earthen pile of unknown function. All but the two concrete towers and earthen pile are fragmentary remains of water conveyance features that no longer retain integrity of design, materials, or workmanship. The two concrete towers are of twentieth-century construction and appear at this location on the 1949 USGS map of the area. These are most likely associated with the latest period of the mine, but lacking in feeling and association, do not meet the eligibility criterion for NRHP or CRHR under A/1. Likewise, the concrete towers cannot be associated with a specific significant individual,

they are not distinctive in design or construction, and do not have data potential. As a result, none of the newly recorded components are recommended eligible for listing in NRHP or CRHR under any criterion.

The only component of this resource that retains historical integrity is the underground workings that are accessed through the main shaft of the New Brunswick Mine. This component is considered separately from the Idaho-Maryland Mine because it is a combination of the underground workings of the New Brunswick Mine, Idaho-Maryland Mine, Union Hill Mine, Eureka Mine, and the consolidated Idaho-Maryland Mine Company (see Underground Workings of the Idaho-Maryland Mine Company below).

New Brunswick Mine (P-29-1494)

The above-ground components of the New Brunswick Mine are part of the Idaho-Maryland Mine Company; however, as with P-29-1447, the historic integrity of these components has suffered from the destruction or dismantling of a majority of the features that existed during the period of significance. They lack all but integrity of location. Although the tall concrete main shaft tower is imposing on the landscape, it sits alone as a twentieth-century remnant of the mine's later period of development. It is not distinctive in terms of design, workmanship, or materials.

The only component of this resource that retains historical integrity is the underground workings that are accessed through the main shaft of the New Brunswick Mine. This component is considered separately from the New Brunswick Mine because it is a combination of the underground workings of the New Brunswick Mine, Idaho-Maryland Mine, Union Hill Mine, Eureka Mine, and the consolidated Idaho-Maryland Mine Company (see Underground Workings of the Idaho-Maryland Mine Company below).

Union Hill Mine (P-29-1496)

The Union Hill Mine consists of concrete structural remains, disturbed tailings piles, and a mining shaft. The above-ground physical components of this resource retain integrity of location only and are therefore not able to convey their historical significance. The mine shaft, like that of the New Brunswick Mine, is considered part of the underground workings of the Idaho-Maryland Mine and are assumed to have integrity of location, design, setting, materials, workmanship, feeling, and association. As a result, the Union Hill Mine is recommended as a contributing element of the Idaho-Maryland Historic District under criteria A/1 and C/3. Its character-defining feature comprises the structural components of the mine shaft, specifically the excavated cuts and the timbering system.

The only component of this resource that retains historical integrity is the underground workings that are accessed through the main shaft of the New Brunswick Mine. This component is considered separately from the Union Hill Mine because it is a combination of the underground workings of the New Brunswick Mine, Idaho-Maryland Mine, Union Hill Mine, Eureka Mine, and the consolidated Idaho-Maryland Mine Company (see Underground Workings of the Idaho-Maryland Mine Company below).

Underground Workings of the Idaho-Maryland Mine Company

The underground workings of the Idaho-Maryland Mine Company area combination of the underground workings of the New Brunswick Mine, Idaho-Maryland Mine, Union Hill Mine, Eureka Mine, and the consolidated Idaho-Maryland Mine Company.

While this extensive resource has not been formally documented because of access issues and safety concerns, recent underwater videos taken of the underground workings[6] show that they are largely intact, albeit partially submersed by groundwater. It retains integrity of location, design, setting, materials, workmanship, feeling, and association; therefore, the underground workings of the Idaho-Maryland Mine Company is recommended as a contributing element of the Idaho-Maryland Historic District under criteria A/1 and C/3. Its character-defining feature comprises the structural components of the mine shaft, specifically the excavated cuts and timbering system. The machinery and equipment are not considered a character-defining feature, as these may be found in several other mines of the region, and are better represented via the Empire Mine State Historic Park and the North Star Mine museum.

McPherson Ditch #1 (P-29-1485H)

The McPherson is an earthen ditch in fair condition; however, research has been unable to associate it directly with any of the major water conveyance systems traversing the area or with any specific mine or period of use. It is considered a minor earthen feature lacking the association required for assigning significance and is therefore recommended not eligible for listing in NRHP or CRHR under any criterion.

East Bennett Road (P-29-4634)

East Bennett is a modern road that follows and partially overlays a historic route. The historic route itself is not significant at the local, regional, or national level. In addition, the resource lacks historic integrity other than location.

Summary of Determination of Eligibility

None of the resources in the APE or the project area are individually eligible for listing in NRHP or CRHR; however, the underground workings associated with the Idaho-Maryland Mine Company are contributing elements to the NRHP- and CRHR-eligible Historic District.

[6] Video is located here: https://www.risegoldcorp.com/gallery-3-videos

Finding of Effect and Assessment of Effect

There is one cultural resource that is a historical resource/historic property according to CEQA/Section 106 that requires an assessment of project impacts. This resource is the underground workings of the Idaho-Maryland Mine Company. The entirety of this resource is a contributing element to the Historic District.

Criteria of Effect

Section 106

Under Section 106 of NHPA, an adverse effect is found when an undertaking alters, directly or indirectly, any of the characteristics of a historic property (i.e., architectural, historic, or archaeological) that qualify the property for inclusion in NRHP in a manner that diminishes the integrity of the property's location, design, setting, materials, workmanship, feeling, association, or its physical integrity.

CEQA

A project with an effect that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment. Substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired. The significance of a historical resource is materially impaired when a project:

a) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources;
b) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
c) Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.

Nevada County

Nevada County refers to any act or process, through private or public action, that directly or indirectly changes the specified character-defining or physical features or architectural appearance of a significant cultural resource as "alteration".

Assessment of Effect

The proposed extraction efforts of the Idaho-Maryland Mine Project would alter the underground workings. Although the precise areas of the underground workings that will be affected have not been completely determined at this time, the rehabilitation of the underground workings will occur throughout the life of the mine. For the purpose of this assessment of effect, Rise Gold Corp. assumes the entire underground workings may be affected, which could result in a significant impact under CEQA and an adverse effect under Section 106.

Recommendations

The formal documentation and establishment of a historic district is not within the scope of the power of a project applicant, and therefore is not considered a feasible mitigation measure for project effects.

Nevada County Condition of Approval for Inadvertent Discoveries

To address an unexpected inadvertent discovery of archaeological resources or human remains during development construction, Nevada County requires the project's conditions of approval include the following statement:

> Any person who, in the process of project activities, discovers any cultural resources and/or human remains within the project area, shall cease from all project activities within at least 200 feet of the discovery. A qualified professional shall be notified to assess any discoveries and develop appropriate management recommendations for cultural resource treatment. In the event that human remains are encountered, the sheriff-coroner shall be notified immediately upon discovery. In the event that Native American human remains are encountered, the Native American Heritage Commission or the most likely descendants of the buried individual(s) who are qualified to represent Native American interests shall be contacted. Specific treatment of Native American human remains shall occur consistent with State law.

Mitigation Measure CR-01

The underground working are not accessible or visible to historic preservation professionals and the public and are at present completely flooded with water. Notably, permission to study the underground geology of the Idaho-Maryland Mine Company was denied to the United States Geological Survey (USGS) for its 1940 professional paper on the gold quartz veins of Grass Valley (Johnston 1940). Therefore, information regarding the underground mine workings constructed after the year 1896 (the year the previous USGS report prepared was prepared by Lindgren) was never published and is not available for to the public or government agencies. However, Rise possesses a private library of information that describes the underground mine workings of the Idaho-Maryland in its entirety. A significant public and historic preservation benefit may be gained from sharing this library with the public. This library consists of the following information:

Digital scans and paper reproductions of maps, documents, and reports

- Surface Maps (5 maps) – *Approx. year at 1956, Showing topography, buildings, roads, exploration trenches and drill holes, underground workings at surface, and geology.*
- 103 Level Maps (103 maps) – *Approx. year 1942, Showing mine tunnels, raises and shafts, survey stations, geology, and drill holes.*
- Mine Geology Maps (61 maps) – *Approx. year 1956, Showing geology on tunnels driven post WW2*
- Mine Stoping Maps (219 Maps) – *Approx. year 1956, Showing mine stoping*
- Operation Reports 1919 to 1924 and 1926 to 1935, *Providing monthly or annual reports on underground exploration and mine development*
- Monthly Development Reports – 1936 to 1956, *Providing monthly reports on mine development*
- Geological Summary Reports – 1936 to 1942, *Providing monthly reports on underground exploration*
- Underground Geology Photos – *Collection of photos from 1940' of underground tunnels and geology*

Rise Gold Corp. has also constructed a digital mine model, a 2d and 3d digitization of historic mine tunnels available in AutoCAD dwg and dxf formats.

Rise Gold Corp. will share the historical documentation of the Idaho-Maryland Mine Company in their possession with the public. Sharing would consist of providing the items held in the Rise private library to one of the following libraries: the California State Library, the California Geology and Mining Library, or the Searls Library. The specific library will be determined by the County.

Mitigation Measure CR-01 is recommended to reduce the potentially adverse impact resulting from the alteration of the underground workings of the mine. This mitigation measure is designed to allow maximum protection of the resource and/or maximum preservation of knowledge contained within the resource. It is recommended that this measure be implemented prior to the onset of project activities and as part of the condition of project approval, as required by the NCC. It is recommended that the County determine that implementation of these measures result in reducing the CEQA impact to a less-than-significant level and that the lead federal agency determine there will be no adverse effect to historic properties.

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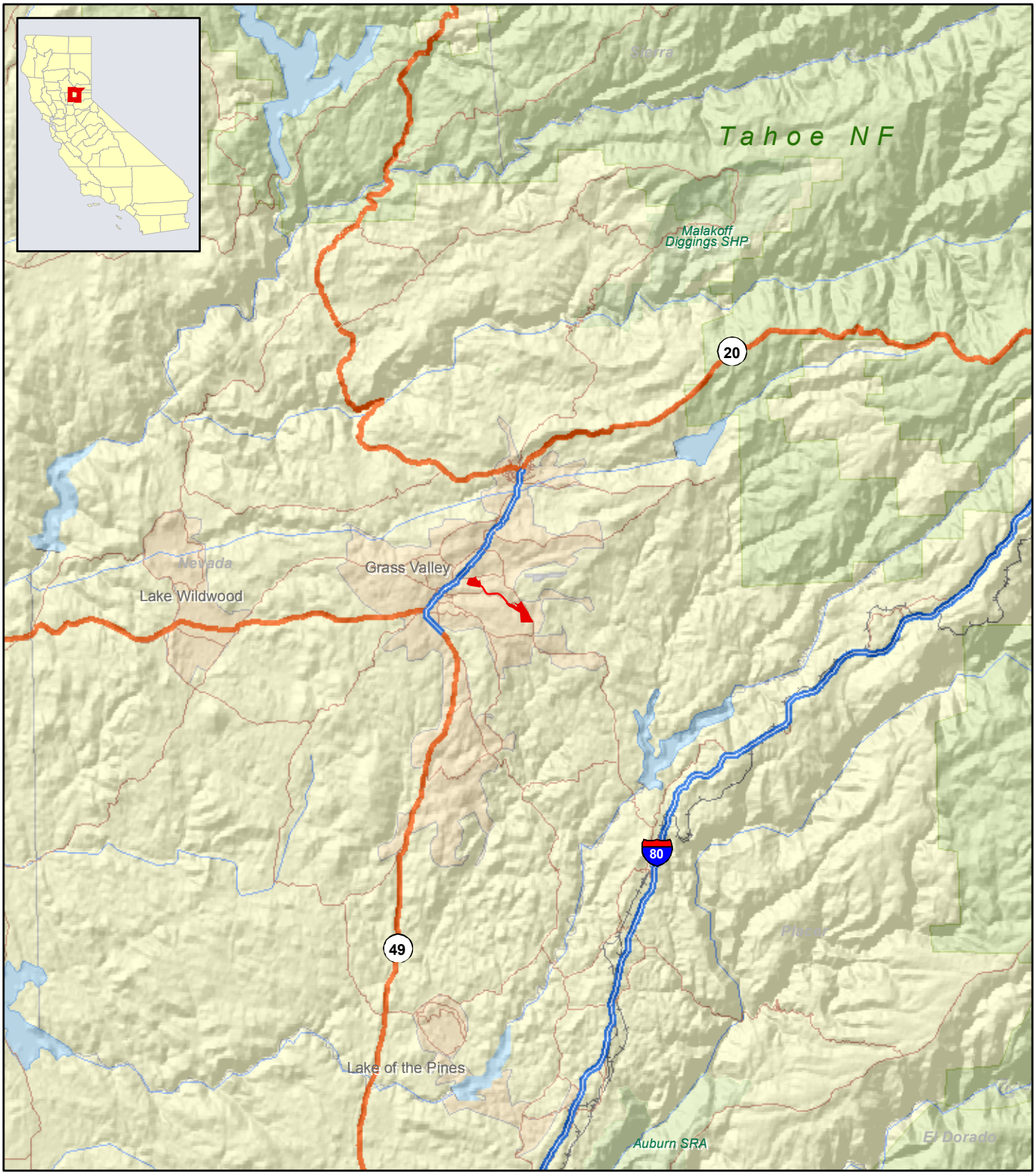

Rise Project Area

0 1 2 3 4 5
Miles

N
W E
S

1:250,000

Sources: *USA Base Map* [layer], *Data and Maps* [CD]. ESRI, 2006.

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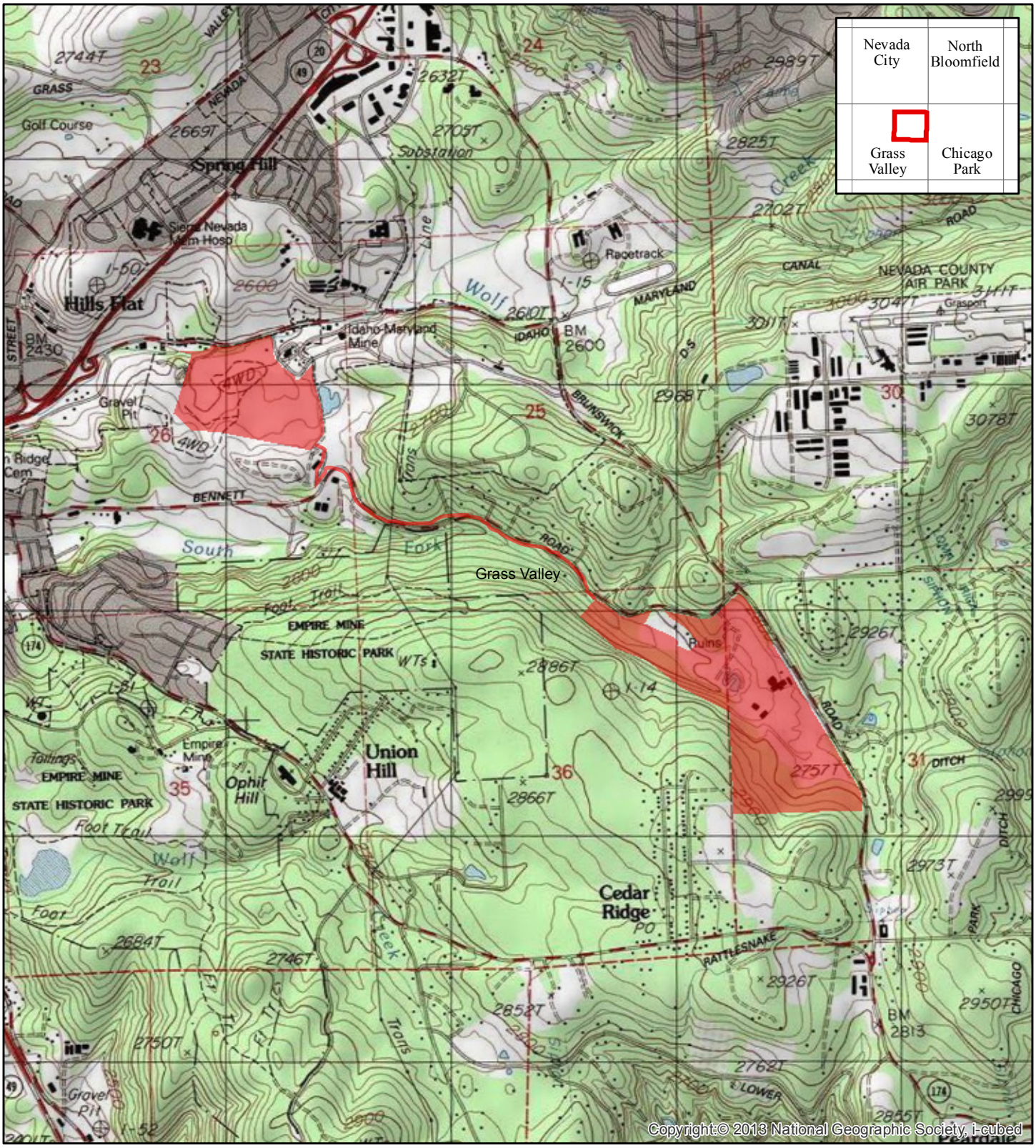
Figure 1
Project Vicinity Map



Rise Project Area

0 0.5 Miles

0 1 Kilometers

Nevada County, CA
Grass Valley USGS Quadrangle, 7.5' Series, 1977.
T16N R08E, Secs 26, 36; T16N R09E, Sec 31.

1:24,000

N
W E
S

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Figure 2
Project Location Map

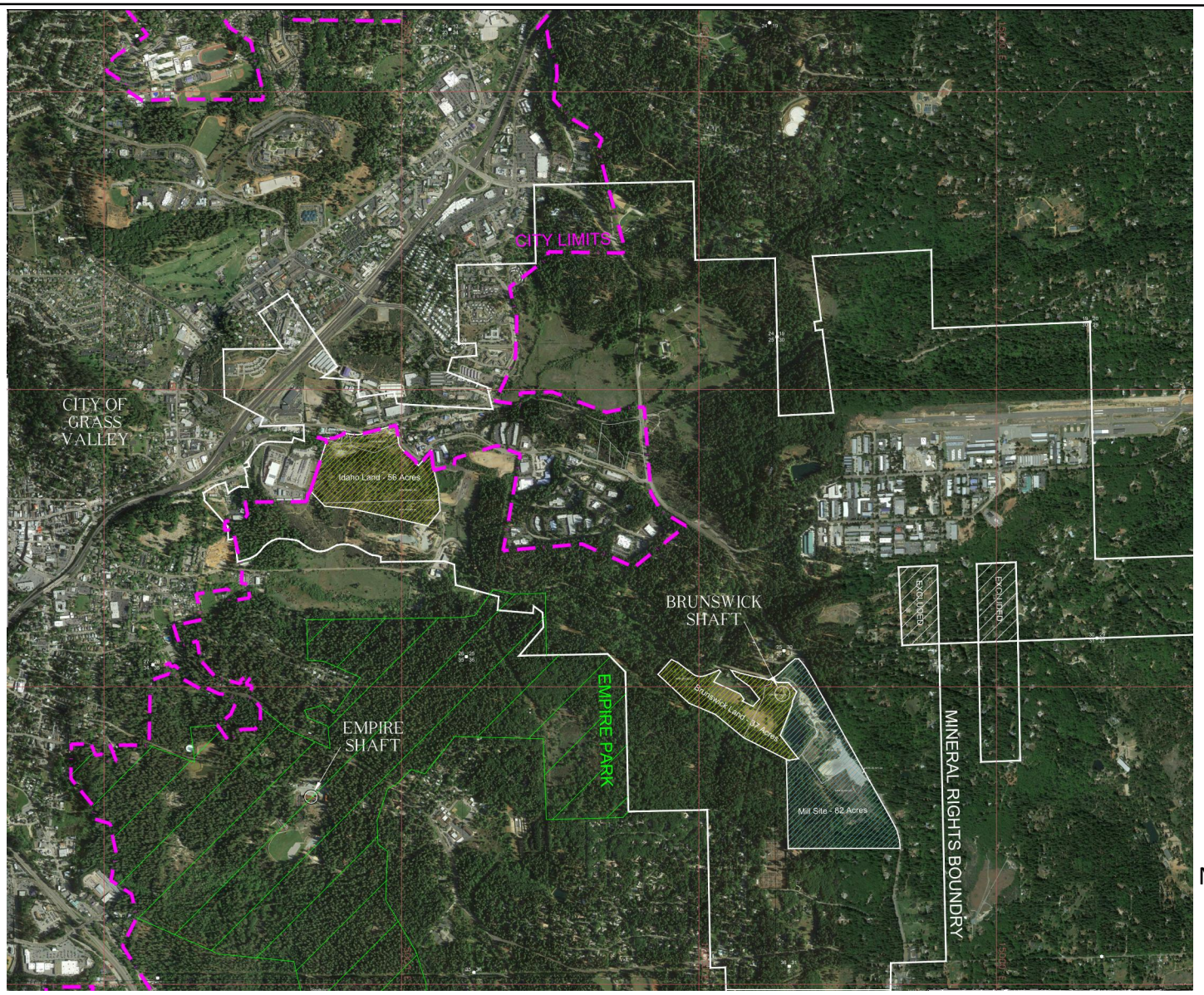

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Figure 3
Mineral Holdings Map
(RISE Gold Corp. 2005)

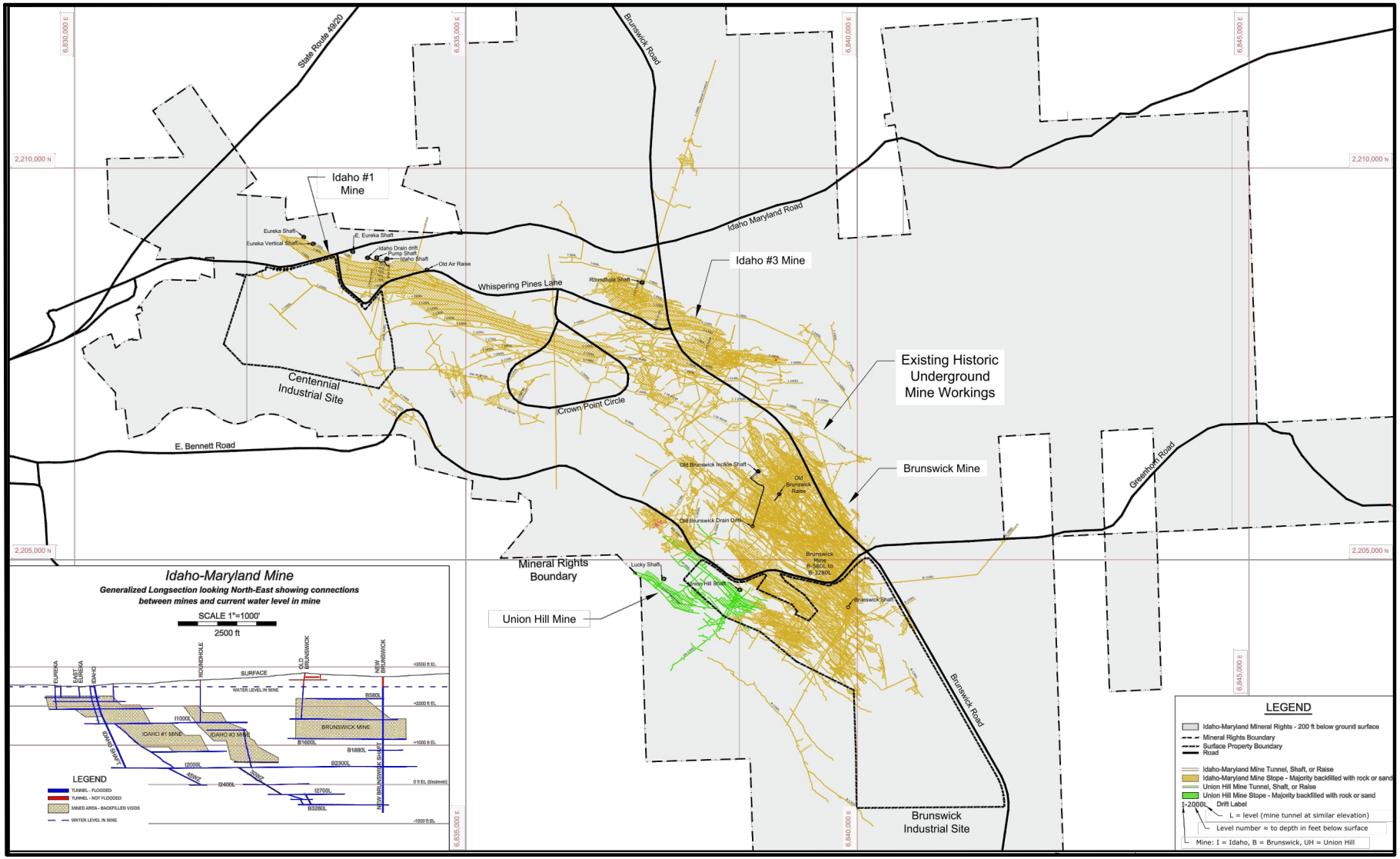

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Figure 4
Underground Workings
(RISE Gold Corp. 2019)

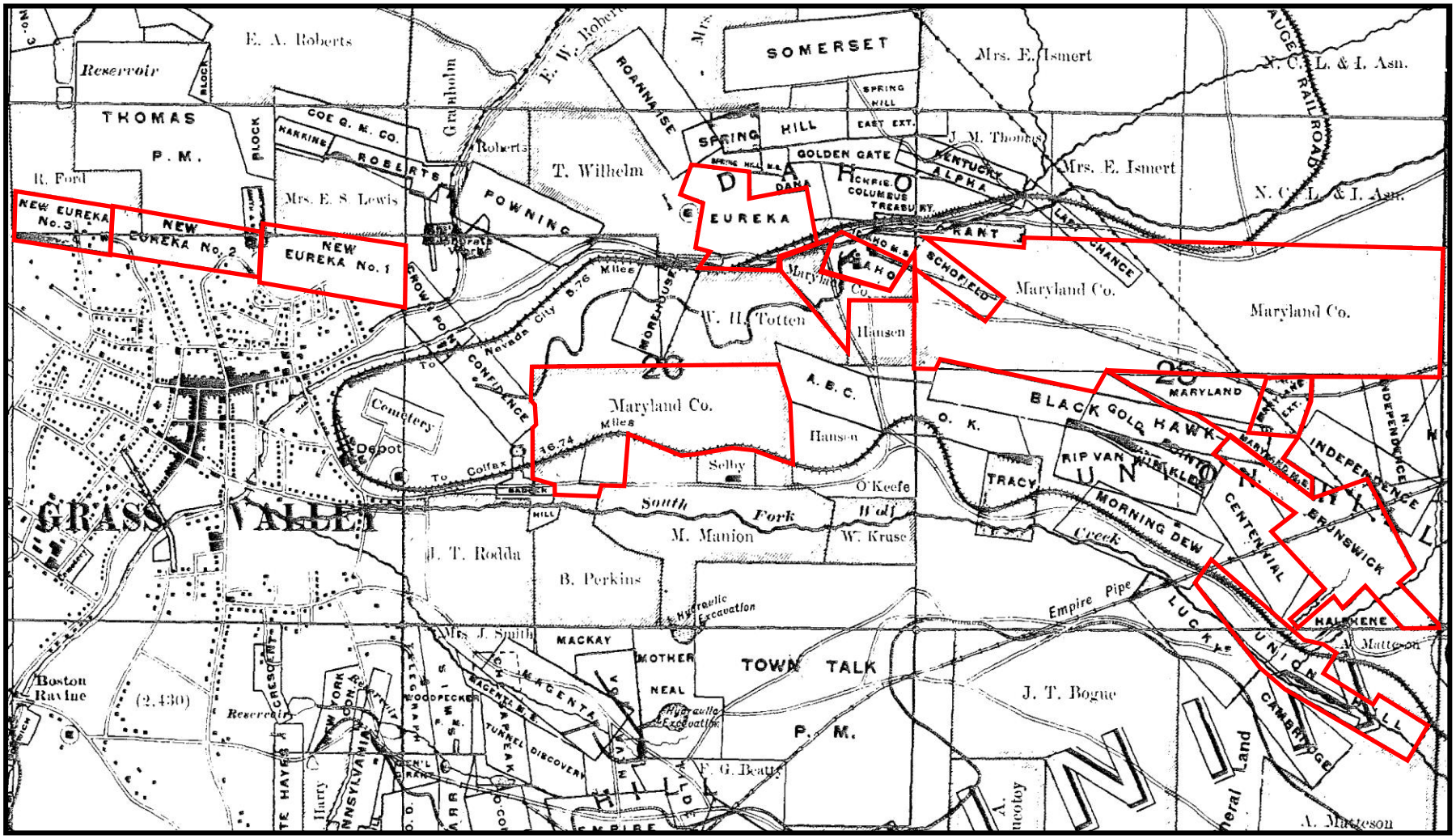

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Figure 6
Mines of the Idaho-Maryland Mine Company
(Uren ca. 1897)

Historic Properties Inventory and Finding of Effect Idaho-Maryland Mine Project

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Appendix E
Resume of Trish Fernandez

Trish Fernandez, M.A., RPA

Archaeologist/Historian

Qualifications

Ms. Fernandez meets the Secretary of Interior's Professional Qualification Standards for work in Archaeology, Architectural History, and History, and has substantive experience conducting Ethnographic research. She has successfully conducted all phases of work and prepared numerous documents covering a wide breadth of resource types, including Tribal Cultural Properties, in compliance with federal regulations.

Expertise

Trish is a recognized expert in NEPA and Section 106 compliance and has taught seminars and workshops on these subjects through universities and professional archaeological and planning organizations.

Experience

Ms. Fernandez has served in a variety of leadership roles, including President and CEO of InContext, cultural program leader, team supervisor, project manager, principal investigator, and field director. She has written, peer-reviewed, and edited scores of environmental documents.

Trish has prepared and directed preparation of numerous documents for all types of public works projects, primarily transportation and linear projects spanning multiple years. She is adept at navigating the most efficient route through regulatory compliance that requires the consensus of multiple federal and state agencies and multiple federally and non-federally recognized Native American tribes.

Ms. Fernandez has served in a volunteer capacity with various professional organizations in an effort to improve archaeological professional standards. In this capacity, she has provided the California Governor's Office of Planning and Research with comments regarding requested changes to their state guidelines; led the statewide effort in developing qualification standards for all levels of archaeological field crew; and successfully led the revision to the SCA's Code of Ethical Guidelines, which required a majority vote by the general membership.

Trish now serves as incoming President of the Register of Professional Archaeologists where she is continuing to make archaeology more accessible to the public and users of professional services and to standardize professional practices and provide practitioners with the means to grow in their careers.

Years of Experience

25

Education

MA, Anthropology, CSU, Sacramento
Graduated 2001 Magna Cum Laude

Professional Memberships

American Public Works Association
American Environmental Professionals
American Cultural Resources Association
Society for Historical Archaeology
Society for California Archaeology
California Preservation Foundation
California Council for the Promotion of History

Registrations

Archaeologist No. 989366 (Register of Professional Archaeologists)

Registered Historian No. 583 (California Council for the Promotion of History)

Awards

Thomas F. King Award for Excellence in Cultural Resources Management, 2008

Selected Appointments

Society for California Archaeology Professional Standards and Ethics Committee, Chair, 2014-2019

California State Archaeological Resources Committee, Chair/Vice Chair, 2006–2015

Old Sacramento Historic Foundation, Board Member, 2008-2010

California State Historical Resources Commission, 2005–2009

El Dorado County Cultural Resources Commission, 1997–2000

Foothill Indian Education Alliance, 1996–1997

InContext
Cultural Resources Solutions

Selected Papers/Presentations

Tribal Consultation: Section 106, CEQA, and AB52, AEP 2019

Cultural Resources: An Integrated Approach, InContext 2018, ICF 2009 & 2011, Buena Vista Rancheria 2007, SCA 2005, Jones & Stokes 2002

AB52: Key Points and Suggested Protocol, Individual Workshops, 2015

White Papers on Archaeological Practices in California, SCA 2010

What the Heck is That? An Overview of Cultural Resources Properties and Types, AEP 2009

Historic Resources Preservation, UC Davis Extension 2009

CRM for Engineers and Planners, EID 2008

Cultural Resources in El Dorado County, EID 2006

The El Dorado Canal: Keeping Power Flowing since 1876, El Dorado County Historical Society 2004

Selected Continued Education

CEQA Mid-Year Case Law Review, AEP, 2015

Caltrans Section 106 PA Workshop, Caltrans District 4, 2015

NEPA Overview and Refresher, UCD Extension, 2010

Section 106 Agreement Documents, National Preservation Institute, 2007

Principles of Tribal Consultation, SRI Foundation, 2006

Public Works and Environmental Compliance, Lorman Education, 2006

Conflict Resolution, UCD Extension, 2004

Consulting with Native Americans about TCPs, ACRA, 1996

Work History

InContext: Cultural Resources Solutions – Fair Oaks, CA, 2012-Present
President and Principal Investigator. Responsibilities include administration, business development, financial reporting, and performing all aspects of technical work related to inventories, evaluations, and mitigation measures.

ICF International — WA, OR, CA, 2008–2011
Cultural Resources Manager. Directed complex, controversial projects; restructured CA team. Established job descriptions and expectations for cultural staff. Took over troubled projects throughout the company to bring them into budgetary, contractual, and regulatory compliance and mend client relations. Managed Sacramento team; created mentoring and peer review structure for quality control and staff development; developed workload management and projection system; increased morale and productivity. Created standardized regulatory language templates, marketing materials, and presentations; developed and presented educational symposia for professional conferences.

El Dorado Irrigation District — Placerville, CA, 2004–2008
Environmental Review Specialist. Responsible for all aspects of cultural resources review under CEQA, including research, survey, consultation, determinations of significance and impacts. Responsible for developing and implementing proactive agency program for complying with all state and federal laws related to cultural resources. Responsible for management of cultural resources as part of the FERC Project 184 relicensing process.

Pacific Legacy, Inc. — Cameron Park, CA, 2002–2004
Historical and Local Government Program Director. Responsible for development and quality of historic-period resources and local government program. Directly supervised cultural staff in three offices. Developed and implemented supervisory and mentoring structure to promote quality, productivity, and personal growth. Directed and conducted all phases of research, excavation, evaluation, and mitigation. Responsible for business development and assisting operations of the Central Sierra office.

Jones & Stokes, Inc. — Sacramento, CA, 1995–2002
Senior Cultural Resources Specialist. Conducted and managed cultural resources studies, including architectural and archaeological inventories, oral histories, and archaeological excavations. Evaluated all types of resources for CRHR and NRHP eligibility. Prepared a variety of reports for cultural resources compliance, and marketing materials and proposals for business development. Developed basic cultural resources training for non-cultural project managers.

Eldorado National Forest – Placerville, CA, 1995
Archaeologist. Conducted archival research, surveys, recorded cultural resources and performed evaluative excavations. Prepared technical reports and documentation. Recorded segments of the Pony Express Trail and associated sites with the aid of GPS technology.