Cultural Resources Inventory for the Sierra Streams Institute – Providence Mine Cleanup, Nevada City, Nevada County, California.

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Management Summary

This report represents cultural resources identification efforts conducted for the proposed remediation effort to be conducted by Sierra Streams Institute for the Providence Mine Brownfields site. Cultural Resources encountered during the survey were the former location of the Providence Mine, located in Nevada City, Nevada County, California. There are standing remains of the Providence Mine structure. Associated features found within the Area of Potential Effect (APE) are stockpiles of mine waste rock; the inclined mine shaft, hoist works and various other mining related structures. Historic mining features observed within the APE include a large depression in the former shaft location, several relic concrete foundations and metal bolts protruding from the ground and an approximately 60 foot section of concrete wall facing a 10 foot cut slope in the southwestern portion of the APE.

The proposed undertaking will remove zero to four feet of contaminated waste rock deposits from areas around the former mine site. The excavations will not reach native soil. Other areas of the APE will be filled with clean aggregate and soil. The stone building ruins will be left in place; undisturbed by the undertaking. The mine portal will be filled with waste rock for safety purposes.

Based on the results of the records search, field investigations, and consultation with the Native American Heritage Commission (NAHC), The Providence Mine, CA NEV 276 H, is considered eligible for the National Register of Historic Places (NRHP) under Criterion D. No Native American cultural sites or sacred sites were identified within the APE associated with the proposed undertaking. The Providence Mine site and associated features may be considered eligible for the NRHP under Criterion D. The proposed undertaking will not have a) alter the characteristics of the property that qualify the property for inclusion in the NRHP or b) diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.

Although the Mine may be eligible for the NRHP, the proposed undertaking will result in **no historic properties adversely affected** in accordance with 36 CFR (800.5(d)(1).). Additionally, no historic resources would undergo a substantial adverse change and be "materially impaired ", as defined by CEQA Guidelines, Section 15064.5, subdivision (b)(2).

Background

The United States Environmental Protection Agency's (EPA) Brownfields Program empowers states, communities, and other stakeholders to work together to prevent, assess, safely clean up, and sustainably reuse Brownfields. A Brownfield site is real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. In 2002, the Small Business Liability Relief and Brownfields Revitalization Act was passed to help states and communities around the country cleanup and revitalize brownfields sites. Under this law, EPA provides financial assistance to eligible applicants through four competitive grant programs: assessment grants, revolving loan fund grants, cleanup grants, and job training grants.

The Deer Creek Tribute trail is an eight-mile, multi-use trail offering a cultural/ecological greenway along the Deer Creek corridor in Nevada City, Nevada County, California. Most of the trail is along the berm of two historic ditches that have been previously recorded as archaeological sites. Approximately 6.5 miles of the trail are on previously existing trails. There are other sections of the trail that passes through downtown Nevada City, which was listed on the NRHP as a district in1985.

There are five areas of the Deer Creek Tribute Trail where additional short connecting trails have been proposed. One of area lies on the location of the now abandoned Providence Mine which contains heavy-metal contaminated waste rock tailings. The Providence Mine project area is located just north of the Nevada City National Register District, but not within it.

Under grants received by the City of Nevada City, Friends of Deer Creek (as subcontractor) conducted a Brownfields Community Wide Assessment of abandoned mine sites on properties owned by the City of Nevada City. Providence Mine was investigated; soil samples were obtained from areas of suspected mine waste and other high-use areas and tested for heavy metals contaminants. The results were evaluated using EPA human health risk assessment methods.

Based on these assessments, the City applied for Brownfields clean-up grants from the EPA, submitting grant proposals written by Friends of Deer Creek. The City was awarded three clean-up grants in 2010, one for Stiles Mill (also located in Nevada City) and two for Providence Mine. Grant funds will be used to clean up 0.83 acres of the 38 acre Environs Property located one mile west of downtown Nevada City.. The site was an abandoned gold mine which operated from the 1860s to 1920. The historical purpose of the site was involved in extracting gold. These operations left surrounding areas contaminated with heavy metals. Before the Providence Mine segment of the trail can be utilized by the public, the contaminants must be cleaned up and covered.

1.0 PROJECT DESCRIPTION

Location

The Providence Mine site is located on Providence Mine Road in Nevada City, California on an approximately 38-acre property known as the Environs Property which comprises Nevada County Assessor's Parcel Number 05-100-87 (Attachment 1). The Environs Property is located in a rural forested area along the south side of Deer Creek, approximately one mile downstream of downtown Nevada City. According to the Nevada City Quadrangle map (United States Geological Survey, provisional edition 1995), the site is located in the southwest quarter of the southwest quarter of Section 12, Township 16 North, Range 8 East. The center of the site parcel is located at latitude 39.2590 degrees, longitude -121.0372 degrees.

The site is located within the Nevada City Mining District at the former location of the Providence Mine, a hard rock gold stamp mill which operated at the site between 1861 and 1920. Along with the neighboring Champion Mine with which it later

merged, the Providence Mine was the richest mine in the Nevada City Mining District. The site is currently undeveloped. Foundations of structures from the historic mining operations remain in the Mine Features area of the site. Popular use trails traverse the property, one of which passes directly through the mine features area in the northern portion of the site. Land use of adjacent areas is generally undeveloped open space.

The Brownfields cleanup site is located in the northwestern corner of the Environs property. The Mine Features Area is located on a leveled area of the slope immediately east of a sharp turn in Providence Mine Road near it's terminus at Deer Creek. The Waste Rock Area is located to the north and northwest of the mine Features Area on a steep slope which extend down to the Deer Creek stream channel. The Mine Features Area is identified as Work Area 1 on the attached Site Map and the Waste Rock Area is identified as Work Area 2.

Unlike other Brownfields, which may consist of abandoned industrial structures in an urban setting, abandoned mine lands typically consist of areas of undeveloped and often remote land strewn with toxic industrial waste. Abandoned mine land is frequently left as open space because development is impractical – the land is either too contaminated or too rugged for development. Informal recreational use evolves on what is often the only available open space, exposing users to the toxic legacy of long-abandoned mining operations. The local climate – characterized by a four month period from June to October in which there is typically no rainfall – exacerbates the threat to human health by creating the dusty conditions associated with the dry western states. Contaminated dust is a primary means of accidental ingestion by humans and poses a serious threat to recreational users.

Description of Proposed Undertaking

Detailed description of the Brownfields Site is provided below.

Mine Features Area

The Mine Features Area Brownfields site (MFA) (Attachment 2) is a relatively level area forming a bench on a steep north slope approximately 75 feet in elevation above Deer Creek. The MFA covers approximately 9,000 square feet (0.21 acres) and was the site of the historic Providence Mine with features including the inclined mine shaft, hoist works and various other mining related structures. Current conditions of historic mining features observed in the MFA include a large depression in the former shaft location, several relic concrete foundations and metal bolts protruding from the ground and an approximately 60 foot section of concrete wall facing a 10 foot cut slope in the southwestern portion of the MFA. Other relic foundations in the MFA extend only two feet or less above the ground surface.

No apparent mine tailings or waste rock have been observed in the MFA, however, analytical results of near surface soil samples in the area indicate elevated concentrations of metals including lead, arsenic and cadmium exceeding regulatory standards for unrestricted land use. A short section of low relic wood and crumbling mortar wall located in the northwestern portion of the MFA and corresponds to the center of a lead "Hot Spot" where lead in near surface soil was detected at concentrations exceeding hazardous waste levels.

Waste Rock Area

The Waste Rock Area covers an approximately 26,000 square foot area (0.61 acres) extending from Providence Mine Road to the Northern property boundary above Deer Creek in the west and from the Mine Features Area to Deer Creek in the east. The mine waste slope sits at or near the angle of repose with slope gradients ranging from 1.4:1 horizontal to vertical in the west, to less than 1:1 in the east. An approximately 15 to 25 foot wide bench extends across the middle of the slope, climbing to the east from the adjacent property and ending below the mine features area. The bench is situated approximately 40 feet in elevation below Providence Mine Road and 30 feet above Deer Creek flood plane in it's the western portion and 20 feet below the Mine Features Area and 55 feet above Deer Creek at its eastern end. An approximately 3,200 square foot area immediately northeastern of the Mine Waste Area is outside the scope of the Brownfields Cleanup project due to budget and access limitations but are within the area considered in this evaluation. This area is extremely steep and unstable and includes an active landslide which will need to be addressed in a future project.

Mine waste has been identified in the Waste Rock Area covering an approximately 26,000 square foot area to an unknown depth, likely exceeding 3 feet over much of the slope. A minimum of 3,000 cubic yards of mine waste is estimated to remain in this area, much or all of which has elevated metals concentrations including arsenic, lead and cadmium exceeding regulatory standards for unrestricted land use.

The Mine Waste slope is vegetated with large pine, oak and fir trees and sparse underbrush including Hoary honeysuckle and Himalayan blackberry. Areas of loose un-vegetated mine waste with high erosion potential are located in the northwestern portion of the WRA below the bench and in scattered areas between trees on other portions of the slope.

Proposed activities in the Mine Features Area include excavation and disposal of contaminated soil in the Lead Hot Spot Area and slope re-grading in the Mine Waste Area, backfill placement in the existing mine shaft depression and soil and aggregate cover material placement. Specific tasks associated with these activities are described below.

In the Lead Hot Spot Area, the top 12-inches material where lead concentrations exceed 1000 mg/kg will be excavated and temporarily stockpiled on site. This material will then be characterized for waste disposal and transported off site to a hazardous waste landfill facility. The excavation areas will be backfilled with clean compacted soil. Portions of the trail passing through the MFA with metal concentrations exceeding remedial goals will be covered with 4-inches of compacted aggregate base. Other areas of the MFA will be covered with 8-inches of clean top soil. Material generated during slope re-grading activities in the adjacent Mine Waste Area will be placed as backfill in the shaft depression, covered with topsoil. Upon completion of site grading activities, all disturbed areas will be re-vegetated with native plants.

Proposed remedial activities in the Waste Rock Area include slope re-grading to reduce erosion potential. Accessible areas of relatively steep, bare ground surfaces and/or sparsely vegetated mine waste will be over-excavated using heavy equipment staged on the existing bench. Slope angles will be reduced leaving the existing bench approximately 8-feet wide to allow equipment access and catchment of eroded material. No slope re-grading is proposed for slopes above the bench. Upon completion of slope re-grading, disturbed areas will be re-vegetated with native plants.

Temporary equipment access will be constructed from Providence Mine Road to the Mine Features Area, and down to the existing bench in the Mine Waste Area. No excavation or cover soil placement is proposed in other areas of the Environs Property.

Estimated maximum surface area and depth of proposed excavations, backfill, fill thickness and areas of potential disturbance are as follows:

Areas of Excavation	**Area**	**Depth**
Ramp to MFA	450 sf	2 ft
Ramp to WRA	500 sf	3 ft
Hot Spot Excavation	700 sf	12 in
WR Slope Re-grades :	4,000 sf	1-3 ft
Total area of excavation	**5,650 sf**	

Areas of Fill	**Area**	**Depth**
Hot Spot `	700 sf	12 in
Shaft Depression	2,400 sf	10 ft
Trail	550 sf	4 in
Other MFA Cover soil	2,300 sf	8-12 in

Total area of fill coverage	**5,950 sf**	

Areas of Disturbance

Staging Area	5,000 sf	
Mine Features Area	6,500 sf	
Waste Rock Area	7,000 sf	
Total area of disturbance	**18,500 sf**	**(0.42 acres)**

Specific site activities associated with the proposed remediation are summarized below.

Temporary Access Grading

Current site conditions include steep slopes which limit heavy equipment access to the proposed work areas. Access ramps will be constructed to facilitate heavy equipment access to the work areas. An approximately 10 foot wide ramp will be constructed from Providence Mine Road to the southeastern portion of the Mine Features Area by excavation of the top of the slope and fill at the base of the slope. An approximately 8 foot wide ramp will be excavated from the northeastern portion of the Mine Features Area to the east end of the bench in the Waste Rock Area. Best management practice (BMP) features will be placed to prevent erosion to down slope areas and tracking of contaminated soil off of the work areas. After completion of the project, the temporary access ramp to the Waste Rock Area will be restored to pre-project conditions and the ramp to the Mine Features Area will be partially removed and re-graded to allow trail access to the area.

Clearing and Grubbing

Clearing of a total of eight trees 6-inches or greater and other smaller vegetation will be performed as necessary to allow equipment access to work areas. A 6-inch and a 14-inch diameter cedar tree will be removed to facilitate excavation in the Lead Hot Spot area. A 6-inch and an 8-inch diameter oak tree will be cut at ground surface along the trail in the Mine Features Area and three firs, 6-inch, 8-inch and 10-inch will be cut in the Waste Rock Area. Several other trees will be trimmed leaving growing trunks to allow equipment access. No subsurface excavation of stumps or roots is proposed except during excavation in the Lead Hot Spot, where soil and roots will be excavated to a maximum depth of 12-inches. All cut trees and brush will be chipped on site and the chips used as ground cover for erosion control.

Water Pollution Control and Best Management Practices

All work will be performed above the 100 year flood plain elevation as determined by an engineering survey and a biological survey. Construction staking will be performed based on the surveys and water pollution control BMP features will be installed above the 100 year flood elevation below all work areas. BMPs will include reinforced silt fencing, straw waddles and covering and containment of all stockpiles during periods of forecast rainfall. A stabilized construction entrance will be maintained at Providence Mine Road.

Heavy Equipment

Anticipated heavy equipment to be used for site remediation activities. include;

- Tandem axel dump trucks and pickup trucks,
- Track Mounted Excavator (ie. CAT 235)
- Rubber Tired Excavator (ie. CAT 914G2)
- Rubber Tired Loader (ie. CAT 950)
- Walk behind trench compactor (ie. Rammax RW151524)
- Water Truck

- Brush chipper (ie. Vermeer BC600XL).

Hot Spot Excavation, Waste Characterization and Disposal

Excavation will be performed to remove soil in an approximately 700 square foot area in the western portion of the Mine Features Area where soil exceeding 1,000 mg/kg lead (Hazardous Waste levels) has been identified. The excavation will not exceed 12-inches in depth and will not include removal or significant disturbance of relic foundations or historic mine features, other than the relic wood and crumbling mortar wall in the center of the Hot Spot which contains high levels of lead and will be removed. Excavated soil will be temporarily stockpiled on site and sampled for waste disposal characterization. Confirmation sampling will be performed at the base and perimeter of the excavation and the excavation may be extended horizontally to meet remediation goals. All excavated soil will be transported off- site at an appropriate landfill disposal facility.

Waste Rock Area Excavation and Slope Re-grading

Excavation of mine waste will be performed on the steep slopes adjacent to the Deer Creek flood plain in the Waste Rock Area to decrease the slope angle and minimize erosion of mine waste into the creek. Excavation will be limited to areas above the 100 year flood plain elevation and BMP features including reinforced silt fencing will be installed below each work area. Excavation will be performed on areas below the existing bench crossing the middle of the slope and will focus on areas of un-vegetated mine waste and areas with minimal vegetation. Areas surrounding trees greater than 6-inch diameter and/or where significant root structures are present will be avoided during excavation. A maximum volume of approximately 60 cubic yards or mine waste and impacted soil will be excavated and transported to an on-site placement area discussed below.

On-site Placement of Mine Waste in Shaft Depression

Excavated mine waste from the Waste Rock Area will be transported and placed as fill in the shaft depression in the eastern portion of the Mine Features Area. The shaft depression will first be cleared of debris and an excavator will be used to confirm the stability of the base of the depression (the collapsed shaft dipped to the east at 30 degrees). Fill will be compacted to 85% relative compaction. Depending on the volume of mine waste excavated, up to 8 feet of fill will be placed in the shaft depression and subsequently covered with clean fill soil as discussed below.

Fill and Soil Cover Placement

After completion of the Hot Spot excavation and soil disposal, the excavation will be filled with clean imported soil or soil excavated during ramp construction. Hot Spot fill will be compacted to at least 90% relative compaction. Portions of the trail running through the Mine Features Area will be surfaced with a minimum 4-inchs of aggregate compacted to 90% relative compaction. Clean imported native soil similar to site topsoil will be placed over all areas of the Mine Features Area where surface soil exceeds remediation goals and over the backfilled Hot Spot excavation. Topsoil will be lightly compacted using the equipment bucket or vibratory plate.

Erosion Control and Re-vegetation

Erosion control measures will be implemented as soon as possible after slope excavation is complete and after soil cover placement. A combination of erosion control mats and fiber rolls will be placed on excavated slopes and other areas of loose mine waste in the Waste Rock Area and in any portions of the Mine Features Area where loose fill will be left in place at slopes greater than 5:1. Reinforced straw waddles will be placed at the base of all fill slopes. Wood chips will be spread over areas of uncompacted fill. Re-vegetation will include seeding and planting of plugs and container plants. A restoration biologist will be consulted regarding plant selection. Erosion control, seeding and planting will be completed prior to the beginning of the late fall-winter rainy season.

Institutional Controls

Signs will be placed at site access points to inform the public that mine waste with elevated metals concentrations is present. DTSC will be consulted regarding sign wording. To provide additional human health protection, land use controls will be

established for areas of the site where elevated metal concentrations will remain in place under soil and or vegetative cover. Future land use will be restricted to recreational use or open space. Disturbance of cover soil and vegetation will be prohibited. An Operation and Maintenance (O&M) agreement will likely be required by DTSC to include yearly monitoring and reporting of the integrity of the fill, vegetation and signage. It is not anticipated that permanent fence installation will be required.

2.0 REGULATORY FRAMEWORK

Federal

National Historic Preservation Act

The National Historic Preservation Act (NHPA) of 1966, as amended, and its implementing regulations, 36 CFR Part 800, require that a property that may be affected by a Federal undertaking be evaluated for its eligibility for inclusion in the National Register of Historic Places (NRHP). It further mandates that the Advisory Council on Historic Preservation and the State Historic Preservation Officer (SHPO) be provided an opportunity to comment on the effects of the undertaking on a property that is eligible for listing in the NRHP prior to any potential effect on the historic property by the Federal undertaking.

NHPA established the NRHP, which is the official list of sites significant in American history. Section 106 of the NHPA requires federal agencies to consider the effect of undertakings on historic properties and to develop and evaluate alternatives to avoid, minimize, or mitigate unavoidable adverse effects on historic properties. Historic properties are those listed on or formally determined eligible for the NHRP.

To be listed on the NRHP, a property must be 50 years old, possess historic significance, and retain physical integrity. A property possesses historic significance if it fulfills one of the following criteria:

- *Criterion A:* the property is associated with events or activities that have made a significant contribution to the broad patterns of history.
- *Criterion B:* The property is associated with the lives of persons significant in our past.
- *Criterion C:* The property is associated with the distinctive characteristics of a type, period, or method of construction, or it represents the work of a master, possesses high artistic values, or represents a significant and distinguished entity whose components may lack individual distinction.
- *Criterion D:* The property holds the potential to provide important information about prehistory or history.

Impact Analysis

A significant impact would occur if the Proposed Action results in an adverse effect to a property that is listed in or eligible for inclusion in the NRHP. The specific Criteria of Effect and Adverse Effect, as defined in 36 CFR 800.9, used to evaluate an undertaking's effect on a historic property, are as follows:

- An undertaking has an effect on a historic property when the undertaking may alter the characteristics of the property that qualify the property for inclusion in the NRHP.
- An undertaking is considered to have an adverse effect when the effect on a historic property may diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.

State

California Register of Historical Resources

The State Historical Resources Commission has designed the California Register of Historic Resources (CRHR) for use by state and local agencies, private groups, and citizens to identify, evaluate, register, and protect California's historical resources. The CRHR is the authoritative guide to the state's significant historical and archeological resources. This program encourages public recognition and protection of resources of architectural, historical, archeological, and cultural significance, identifies historical resources for state and local planning purposes, determines eligibility for state historic preservation grant funding, and affords certain protections under CEQA.

California Environmental Quality Act (CEQA)

Under CEQA, public agencies must consider the effects of their actions on both historical resources and unique archaeological resources. Pursuant to Public Resources Code (PRC)
Section 21084.1, a "project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment." Section 21083.2 requires agencies to determine whether proposed projects would have effects on unique archaeological resources.

Historical resource is a term with a defined statutory meaning (PRC Section 21084.1; determining significant impacts to historical and archaeological resources is described in the CEQA Guidelines, Section 15064.5 [a], [b]). Under CEQA Guidelines Section 15064.5(a), historical resources include the following:

1. A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Public Resources Code, Section 5024.1).

2. A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources Code or identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the Public Resources Code, will be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource will be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing in the California Register of Historical Resources (Public Resources Code, Section 5024.1), including the following:

a) 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 important in our past;

c) 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; or

d) Has yielded, or may be likely to yield, information important in prehistory or history.
The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to Section 5020.1(k) of the Public Resources Code [PRC]), or identified in a historical resources survey (meeting the criteria in Section 5024.1(g) of the PRC) does not preclude a lead agency from determining that the resource may be an historical resource as defined in PRC Section 5020.1(j) or 5024.1.

Historic resources are usually 45 years old or older and must meet at least one of the criteria for listing in the California Register, described above (such as association with historical events, important people, or architectural significance), in addition to maintaining a sufficient level of physical integrity.

Properties of local significance that have been designated under a local preservation ordinance (local landmarks or landmark districts) or that have been identified in a local historical resources inventory may be eligible for listing in the CRHR and are presumed to be historical resources for purposes of CEQA unless a preponderance of evidence indicates otherwise (PRC Section 5024.1 and California Code of Regulations (CCR), Title 14, Section 4850). Unless a resource listed in a survey has been demolished, lost substantial integrity, or there is a preponderance of evidence indicating that it is otherwise not eligible for listing, a lead agency should consider the resource to be potentially eligible for the CRHR.

For historic structures, CEQA Guidelines Section 15064.5, subdivision (b)(3) indicates that a project that follows the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings, or the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (1995) shall be considered as mitigating impacts to a less than significant level.

As noted above, CEQA also requires lead agencies to consider whether projects will impact unique archaeological resources. Public Resources Code Section 21083.2, subdivision (g), states that " 'unique archaeological resource' means an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

• Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.

• Has a special and particular quality such as being the oldest of its type or the best available example of its type.

• Is directly associated with a scientifically recognized important prehistoric or historic event or person."

Treatment options under Section 21083.2 include activities that preserve such resources in place in an undisturbed state. Other acceptable methods of mitigation under Section 21083.2 include excavation and curation or study in place without excavation and curation (if the study finds that the artifacts would not meet one or more of the criteria for defining a unique archaeological resource).

Section 7050.5(b) of the California Health and Safety Code (CHSC) specifies protocol when human remains are discovered, as follows:

> *In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27492 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code.*

CEQA Guidelines Section 15064.5, subdivision (e) requires that excavation activities be stopped whenever human remains are uncovered and that the county coroner be called in to assess the remains. If the county coroner determines that the remains are those of Native Americans, the Native American Heritage Commission must be contacted within 24 hours. At that time, the lead agency must consult with the appropriate Native Americans, if any,

as timely identified by the Native American Heritage Commission. Section 15064.5 directs the lead agency (or applicant), under certain circumstances, to develop an agreement with the Native Americans for the treatment and disposition of the remains.

In addition to the mitigation provisions pertaining to accidental discovery of human remains, the CEQA Guidelines also require that a lead agency make provisions for the accidental discovery of historical or archaeological resources, generally. Pursuant to Section 15064.5, subdivision (f), these provisions should include "an immediate evaluation of the find by a qualified archaeologist. If the find is determined to be an historical or unique archaeological resource, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or appropriate mitigation should be available. Work could continue on other parts of the building site while historical or unique archaeological resource mitigation takes place."

Standards of Significance

Following Public Resources Code Sections 21083.2 and 21084.1, and Section 15064.5 and Appendix G of the CEQA Guidelines, cultural resource impacts are considered to be significant if implementation of the project considered would result in any of the following:

1) Cause a substantial adverse change in the significance of a historical resource as defined in Public Resources Code Section 21084.1 and CEQA Guidelines Section 15064.5.

2) Cause a substantial adverse change in the significance of an archaeological resource as defined in Public Resources Code Sections 21083.2 and 21084.1, and CEQA Guidelines Section 15064.5.

3) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature.

4) Disturb any human remains, including those interred outside of formal cemeteries.

State CEQA Guidelines Section 15064.5 defines "substantial adverse change" as physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource is materially impaired.

CEQA Guidelines, Section 15064.5, subdivision (b)(2), defines "materially impaired" for purposes of the definition of substantial adverse change as follows:

The significance of an 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; or

(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.

CEQA requires that if a project would result in an effect that may cause a substantial adverse change in the significance of a historical resource or would cause significant effects on a unique archaeological resource, then alternative plans or mitigation measures must be considered. Therefore, prior to assessing effects or developing mitigation measures, the significance of cultural resources must first be determined. The steps that are normally taken in a cultural resources investigation for CEQA compliance are as follows:

- Identify potential historical resources and unique archaeological resources;
- Evaluate the eligibility of historical resources; and
- Evaluate the effects of the project on eligible historical resources.

3.0 PROJECT LOCATION AND SETTING

3.1 Physical Environment

The proposed project area is located at the divide between the Yuba and Bear River basins within the lower montaine of the north central Sierra Nevada. The elevations within the APE range from approximately 2500 to 2600 feet above mean sea level. Topographically, the property consists of primarily of gently to moderately sloping lands situated along the southern margins of series of prominent east west trending ridges which descend towards the towns of Grass Valley and Nevada City. The geologic map of the Nevada City District indicates that the project area contains quartzite with gold bearing veins (Clark 1970). The topography, water and mineral resources, together with the floral and faunal resources provide a context for land uses by both native and Euroamerican populations (Tremaine 1999).

The habitat in the immediate vicinity is characterized as Sierran Mixed Conifer (Allen 1988), also referred to as yellow pine forest (Munz & Keck 1973). It is typically composed of white fir, Douglas fir, ponderosa pine, sugar pine, incense-cedar, and California black oak.

Common understory shrub species include: deer brush, manzanita, chinquapin, tan oak; bitter cherry; mountain whitethorn, gooseberry, rose, and mountain misery. The area, representative of the transition zone between foothills and highlands, hosts some 355 species of animals (Vernier & Boss 1980). Those of particular economic significance to native peoples included: salmon, trout, minnows, suckers, sunfish, freshwater surfperch, quail, grouse, pigeons, dove, rabbits, pikas, tree squirrels, marmots, ground squirrels, beavers, tule elk, deer, and bighorn sheep (Jackson et al. 1994).

3.2 Cultural Setting

The following briefly summarizes the prehistory, ethnographic, and historic contexts pertinent to the study area.

3.2.1 Prehistory

The prehistory of the north central Sierra Nevada region has been variously interpreted (d., Bennyhoff et al. 1982, Markley & Henton 1985, Jackson et al. 1994, (Tremaine & Jackson 1995). In general, however, human use or occupation is thought to span at least 8500 years. The earliest period, the Archaic, is predominantly understood from assemblages marked by hand stones and millings labs, as well as the infrequent occurrence of obsidian flakes. This evidence is assumed to represent a subsistence base which included seeds and vegetal resources. Later periods have been accorded different labels as well as differing time frames. Thus, while a general cultural sequence is known, the details of the major phases are not well established. The ensuing discussion, then, tracks the temporal frameworks offered by Jackson et al. (1994) and Tremaine and Jackson (1995).

After a period of initial regional use, three periods are discerned: Early, Middle, and Late Sierran. The Early Sierran period, from roughly 5500 to 2500 years ago, is perhaps indicative of the first persistent pattern of land use in the region. Archaeological manifestations, however, are limited. In addition to hands tones and milling slabs, only large projectile points (corner-notched, side-notched, and contracting stemmed varieties) are represented. During this time, a gradual Increase in obsidian use is indicated on the basis of dated flake debris. Elsewhere at this time, a multitude of specific archaeological complexes appear (e.g., Windmiller in the Sacramento Valley, Mendocino in the North Coast Ranges, and the Campbell intrusion in south-central California).

The Middle Sierran period, between 2500 and 1000 years ago is characterized by a diversification of projectile point types. In addition to those from the Early Sierran period, small corner-notched points appear. Obsidian tool production is shown to peak at this time. Elsewhere, especially in the Central Valley, a major cultural efflorescence occurs. Interregional exchange (reflected by an increased volume of obsidian) has been suggested to indicate a period of relative stability in ethnic territories. Mortar and pestle use becomes firmly established. Also round *olivella* beads replace square and rectangular bead styles.

The Late Sierran period, from 1000 years ago to the protohistoric period (about 500 years ago), is marked by a change in projectile point types with the introduction of the bow and arrow. Desert side-notched and small corner notched points appear, as well as small contracting stemmed varieties. Large points are also present. Notably, obsidian use is reduced relative to the Middle Sierran period. It is postulated that chert use for the production of desert-side notched points replaced obsidian. Lastly, the use of bedrock mortars and pestles becomes prevalent at this time. Elsewhere in California, permanent villages are established, marking the emergence of sedentism.

3.2.2 Ethnography

The project is situated within an area traditionally occupied by the Nisenan. Their language is classified as belonging to the Maiduan family of the Penutian linguistic stock (Shipley 1978). Kroeber (1925) claims the Nisenan held the whole of the American River drainage plus the Bear and Yuba rivers. The upper elevations, however, were also peripherally used by the Northern Washoe (d' Azevedo 1986). An ethnographic overview of is provided by Carlson (1984).

Only a few early studies document the traditional life ways of the Nisenan. Merriam (1968-69) provides brief accounts of field work between 1902 and 1906 among several Ne'-se-nun groups on western slopes of Sierra Nevada: near Forest Hill, Colfax, Nashville, and Downieville. Faye (1923) presents notes from interviews with William Joseph, a "Southern Maidu" whose mother was from Amador County in the vicinity of Plymouth and Forest Hill. Beals (1933) writes of the Hill and Mountain Nisenan based on testimonies of nine informants scattered over Eldorado, Amador, Placer, and Nevada counties. Lastly, Kroeber (1929) documents detail on the Valley Nisenan, based on information from a single man, Tom Cleanso, born and raised at Kadema, a village seven or eight miles up the American River. Later ethnographic investigations, carried out during 1966 and 1968 in association with the Auburn-Folsom Dam project, have been presented by Ritter and Schulz (1972). Wilson and Towne (1978) give a summarized accounting of these primary references.

Briefly, from what is known, Nisenan communities lived in permanent settlements located on low, natural rises along streams and rivers or on gentle, south-facing slopes. Each community was composed of a central village and several outlying satellite villages, having access to a district territory generally encompassing 100 square miles (10 miles along each boundary) (Beals 1933). Village populations ranged from 15 to over 100 persons (Kroeber 1925). The major villages had large ceremonial lodges or dance houses (semi-subterranean, earth-covered structures) to host community events. Gifford (1927) has reported on their religious practices.

Economic life for the Nisenan revolved around hunting, fishing, and collecting of plant foods. Each family had three tall granaries for the purpose of storing acorns and dried meat (Wilson 1972). Other resources such as pine nuts, hazelnuts, root cakes, dried fish, seeds, and grasshoppers were stored in baskets or sacks. Households are said to have owned oak and pine trees, quail fences, gathering areas, hunting grounds, and some seed tracts (Voeglin 1942). Payen (1961)

reports that the people around the Folsom area moved their residence three times per year. Informants report spending the summer months hunting and gathering in the uplands, the fall and winter in the low foothills (below the snow line and above flood waters), gathering acorns, buckeyes, and pine nuts. In the late spring, they moved to the Cosumnes or American rivers due to lack of water.

3.2.3 History

The Spanish were in the Sacramento valley, navigating up the Sacramento River as early as 1808 (Moraga), and may have subsequently explored the Yuba and Bear Rivers in 1822 (Thompson and West 1880). Russian, American and Hudson's Bay trappers were also in the general area in search of beaver in the 1820s. In 1822-23 the Russians reportedly built cabins on the Bear River 25 miles east of Nevada City (DelChioppo 1981). The earliest documentation of Euro American presence in the Grass Valley area was in 1846, when Claude Chana and some other French immigrants passed through this area (Hoover, Rensch and Rensch 1966:251) on their way down from the Truckee Pass.

Nevada County was created in 1851 from land areas in Yuba County. The county seat was designated as Nevada City, named in Spanish for the snow that often covers it in winter. A sister city nearby, Grass Valley, was named for its fresh, green spring meadows that greeted gold seeking immigrants. The town was sited by a party of five men that built a cabin on Badger Hill near what is presently the eastern edge of Grass Valley. Others joined the small group and through the winter helped establish the beginnings of the town that evolved into Grass Valley. Another group constructed four cabins in nearby Boston Ravine which also became a part of the new settlement.

3.2.3.1 Development of the Mining Industry

The event that drove Nevada County's rapid early growth was the famed discovery of gold in northern California settlement of Coloma, in 1848. The quest for wealth spurred prospective miners from around the world to try their luck in California's northern hillsides, streams and valleys. In 1850, George Knight, one of these prospectors, discovered gold-bearing quartz in the area, and initiated the new industry of quartz mining. Stamp mills for the reduction of ore were built wherever the ore was mined.

The first mining was almost entirely from surface placering. Drift mining began in the 1850s and continued until about 1900. With gold found in Wolf Creek in 1848, Nevada County witnessed a rapid influx in population. The first few years were characterized by individual prospectors living in transitory mining camps, dependent upon imported foodstuffs and hand tools such as pans, rockers, long toms, and sluice boxes (Pagenhart 1969).

In October 1850, the most noteworthy discovery of gold-bearing quartz was made on Gold Hill in Grass Valley by George Knight, which led to the development of quartz mining in the area. The Gold Hill Mine, (1950-57) had a total production of $4 million. Many other gold veins were discovered in this vicinity, the more prominent being at Massachusetts Hill, and the Eureka on Wolf Creek, Allison Ranch, North Star, Empire and the Idaho, discovered in 1863 (Hoover, Rensch and Rensch 1966:252). The most productive have been the consolidated North Star and Empire mines to the south and east of Gold Hill. These mines operated for more than a century, yielding over $80 million. The longest vein extends for nearly two miles and the longest shaft extended nearly 7,000 feet, with 4,000 feet of vertical depth. The Empire Mine is currently a State Park and museum. Other mines operating into recent times include the Idaho-Maryland and the Brunswick (Clark, 1980; Hoover, Rensch and Rensch 1966). By the mid-1850s, hydraulic technologies were available, soon resulting in the development of a complex system of ditches, canals, and flumes for transporting water.

Quartz lode mining became important by the end of the 1850s. This type of work was conducted on a large industrial scale. It entailed the use of drills and blasting powder to create tunnels and shafts along the gold-bearing veins. The removed ore was then crushed by stamp mills and refined using a chlorination process introduced in 1858 (Jackson et al. 1982). By this time, a more permanent pattern of settlement was in evidence, featuring towns and a variety of transportation systems (e.g., roads, bridges, stagecoach lines, freight & express companies).

Hard-rock quartz mining nearly became synonymous with Grass Valley, the district being California's top-ranking producer, with a total yield of over $300 million (Clark 1980:13). A total of 98 mines (Including the Empire-Star and Idaho-Maryland groups) with total yields of $100,000 or more are listed for Grass Valley (Clark 1980:59-60).

With the building of the transcontinental railroad in 1869, California became tied to a national economy. The next half-century brought an era of commercial development and diversification. Logging, livestock and dairy ranching, farming, fishing, ice harvesting, and recreational tourism were all stimulated or expanded by new market opportunities (Jackson et al. 1982). These enterprises brought varying degrees of material prosperity to the county.

Much of the mining activity took place between 1850 and 1900, slowing down in the early part of this century. Mining of all sorts picked up during the 1930s depression, when many people were out of work and moved from higher-cost cities to more rural areas where living was cheaper and perhaps some gain could be had in smaller mining operations and associated businesses. Mining was suspended during World War II, leading to the failure of many of Nevada County's mines. After the war, the Empire, Pennsylvania, North Star and Idaho-Maryland mines opened, but eventually operations gradually decreased, with the Idaho-Maryland closing in 1956 and the Empire-Star in 1957, ending 106 years of mining operations in the Grass Valley District. The Idaho-Maryland Mine had eventually ranked as California's second highest gold producer,

3.2.4 Recent and Current Use

The Providence Mine operated at the site between 1861 and 1920. Along with the neighboring Champion Mine with which it later merged, the Providence Mine was the richest mine in the Nevada City Mining District and among the richest mines in the California Gold country. The following historical summary is based on review of State Mineralogists reports, historic mining maps and photographs, Sanborn Fire Insurance Maps and other available historic documents.

The Providence Mine was located in 1852 and was first operated from 1861 to 1867. Due to difficulties with ore processing due to the high sulfide content of the ore (which limits mercury amalgamation), the mine was not operated profitably until the adoption of the chlorination process in 1870.

In 1870, Colonel John H. Walrath…" paid sixty thousand dollars for the property, and in the deal he associated with his brother Austin Walrath and with John V. Hunter and W.H. Smith. He operated the mine and was interested in it for thirty-two years when, in 1902 he sold out. During that period he erected the best works in the state with a forty-stamp mill thoroughly equipped." Colonel Walrath also owned the Reward mine (Irvine 1903). On the 28th of April, 1871, on a previous location made in 1857, the Providence Gold and Silver Mining Company obtained a patent in which it was recited that it was "the intent and meaning of these presents to convey" to the company "the vein or lode in its entire width for the distance of 3,100 feet along the course thereof."

By 1886 the Providence Shaft had reached a depth of 1100 feet with drifts (horizontal workings) of up to 3,600 feet and by 1889 had reached a depth of 1884 feet with over one mile of workings. The mine was worked continuously between 1870 and 1895 by which time it was "foremost in Nevada City production and extent of workings" with a reported production of $5 Million. The mine was powered by water, employed 100 miners and boasted a 40 stamp mill with "one of the best chlorination works in the state.

The Providence mine was advanced along the Merrifield Vein, one of the longest and most productive veins in the district which extended in a north northwest orientation a total of 11,000 feet from a location 3000 feet south on the Providence Mine. The vein dips between 35 and 40 degrees to the east and occupies a zone of crushed altered rock along the contact between massive diabase rock to the southwest and granodiorite rock to the north and east. The quartz vein is between 1 foot and 10 feet thick. The ore body consists of milky quartz within the vein and in lenticular form with an average of 6% sulfides consisting of pyrite, chalcopyrite, galena and sphalerite. Specimen gold (free gold) was rare.

The Ural Vein which was similar in character and ran parallel to the Merrifield vein approximately 500 feet to the west, was worked by the Champion Mine which was located across Deer Creek approximately 500 feet to the northwest of the Providence. At least 20 mines worked these two veins, of which the Providence, Champion, Nevada City, Wyoming,

Home mines were the most productive. Over the course of the mining era, the mines working these veins eventually encroached on each other at depth resulting in disputes which often ended up in the courts. (Walrath v. Champion Mining Company, 171 U.S. 293 (1898))

Over time the mines merged through a process of litigation and buy outs by the larger better funded mine companies. The Providence-Champion legal war between 1894 and 1902 shut down both mines and ended with the purchase of the Providence by the Champion Mining Company in 1902. By the early 1900s the Champion group controlled all the mines in a 440 acre area encompassing the major workings of the Merrifield and Ural Veins. Operations of the mines were consolidated and the Champion Shaft was used for lowering miners, shoring and equipment and the Providence Shaft was used for hoisting ore and waste rock. At this time the ore was transported by aerial tramway to the larger mill on the Champion side of Deer Creek for processing. Waste Rock was dumped below the Providence Shaft in a pile extending to the Deer Creek channel (Waste Rock Area of subject site).

Between 1902 and 1911 the Champion Mines were only worked intermittently due to financial and legal issues. In 1911 the Champion Group of mines was purchased by the North Star Mines Company which renewed significant work. By 1918 the Champion Providence Mines were the only operating mines in the Nevada City Mining District. According to the 1930 State Mineralogists Report, The North Star Mines Company stopped work at the site in 1920 after several years of unprofitable operation at the Champion and Providence and Nevada City claims. In later years the Providence mine was advanced to a depth of over 2700 feet along the vein with the ore shoot extending from the surface to at least 2700 feet with a slope length of 300 to 400 feet and a vein width of 2 to 10 feet. The Champion Mine group yielded over $1,500,000 between 1911 and 1920 under the North Star ownership.

No records were located referring to the reopening the Champion/Providence mines between 1920 and the early 1940s when all precious metals mines were closed by the US Government and gold prices were fixed at a low rate to focus industrial efforts on World War II. Mining did not resume at the Champion/Providence Mines after the war.

During World War II, efforts were made to gather scrap metal for the production of war machinery. Most of the mines in the area were stripped of accessible metal such as head frames and metal buildings. Structures at the Providence Mine were likely dismantled at this time.

Historic photographs from the late 1800s show at least two large buildings at the Providence Mine site, most likely the Shaft and Hoisting works and the Stamp Mill. These photographs show the Deer Creek channel between the Providence and Champion Mines choked with mining sediment which aggraded the channel by roughly 20 feet or more at that time. This was primarily hydraulic mine sediment but likely contained some hard rock mine waste as well. Nearly all this sediment has been transported downstream in subsequent years.

An 1898 Sanborn Fire Insurance Map shows the layout of the buildings at the Providence Mine site. A rectangular shaped building labeled Hoisting Works covers the Shaft area (mine features area of site) and appears to correspond with the shaft depression and remnant concrete foundations now remaining at the site. A blacksmith shop was located to the northeast of the shaft (not remaining) and a building labeled “Change Ho.” (likely a changing house used by miners) was located to the northwest of the hoisting works in the approximate location of remnant foundations and the lead hot spot identified during the recent Brownfields Assessment. A waste dump is shown extending in a large lobe to the north encroaching on the Deer Creek channel.

A larger building labeled Quartz Mill and several other structures including a sulphurets room and a roasting furnace are located to the west of the hoisting works (Mine Features Area) of the site in an area along the western subject property boundary and off site to the west. This area has been extensively regarded since the end of mining times with the addition of imported fill and construction of Providence Mine Road. Based on review of historic maps and photographs it appears that the ground surface in the portion of the former Quartz Mill area which is on the subject site has been covered by fill and road construction and is no longer exposed.

According to Bill Falconi, the Nevada City Engineer and long time local resident, the buildings at the Providence Mine were removed prior to the early 1950s. Providence Mine Road was constructed during the 1960s to access mine waste piles at the site which were used as fill during construction of the Golden Center Freeway between Nevada City the Grass

Valley. Mr. Falconi recalls a large pile of waste in the current location of the sharp curve in Providence Mine Road adjacent to the west of the current Mine Features Area. This waste was excavated and a portion used as fill beneath the road. Providence Mine road extended to the bank of Deer Creek and provided access to the mine waste (Waste Rock Area) from the west. Mr. Falconi estimated that up to 2/3 of the mine waste was excavated and removed from the site and placed as fill in 1965 and 1966. He was not aware of any effort to seal the Providence Mine Shaft at the site.

Current conditions at the site include only a limited number of foundations in the mine features area to the west of the former shaft location. The shaft location now consists of an elongated depression approximately 60 feet by 20 feet and up to 15 feet deep. Scattered rusting metal debris such as rods, pipe sections and fittings has been observed in the Mine Waste Rock area. No foundations or other mine features are apparent in the former mill site location to the west of the Mine Features area or in other areas of the site.

4.0 RECORDS AND LITERATURE SEARCH

In advance of this study a records search was completed for the area of potential effect (APE) (Attachment 1) and an archaeological survey was conducted within the APE. This report details the results of an archaeological inventory survey of the proposed Providence Mine Brownfields cleanup located in Nevada City, Nevada County, California.

Cultural resource identification efforts for this project consisted of 1) correspondence with Native Americans; 2) records searches, literature review, and archival research at the North Central Information Center at California State University, Sacramento; and 3) field inventories (historic built environment and archaeology)

The Sierra Streams Institute contacted the Native American Heritage Commission (NAHC), for a list of federally recognized Indian tribes who may have interest in the project area while conducting undertaking the Stiles Mine Brownfields cleanup, regarding the proposed undertaking. Sierra Streams Institute has also written letters to the Native American Tribes who might attach religious or cultural significance to the APE. Sierra Streams Institute is currently awaiting responses from the Native American Tribes.

To determine whether the project site was previously subject to a cultural resources survey or contains previously recorded cultural resources, a records search was conducted on February 9, 2013, at the North Central Information Center (NCIS) located at California State University, Sacramento. The purpose was to identify any previously recorded sites, past cultural resources investigations, properties listed in the National Register, and other historical resources listings. In addition to the official records and maps for archaeological sites and survey, the following historic references were reviewed: The National Register of Historic Places - Listed properties (USDI National Park Service 1996) and National Register of Historic Places Determinations of Eligibility (USDI, National Park Service 1998), California Place Names (Gudde 1969), California Gold Camps (Gudde 1975), California Historical Landmarks (1996), California Inventory of Historic Resources (State of California 1976),General Land Office (1867), Gold Districts of California (Clark 1970), and the Historic Properties Directory (State of California 1995).

Results of the records search indicate that the APE has been previously investigated. The records search also revealed that there are recorded historic resources within the APE and within ¼ -mile of the APE. The Nevada City National Register District lies within one mile of the APE. Several surveys have identified previously recorded historical resources within ½ -mile of the APE. One resource, Providence Mine - CA NEV 276 H, will be affected by the proposed undertaking.

Results of the records search indentify a total of 31 previously documented cultural resources with a 0.5 mile radius of the current APE. The APE has previously been investigated. The records search revealed that portions of the Providence Mine within and outside of the APE were previously recorded in 1978 by D. Storm, B. Barry, F. Hess and J. Tafreshi and assigned the trinomial CA NEV 276 H. This recordation did not recommend the historic period mine or portions of the mine as eligible for listing to the NRHP, CRHR, or as a historic resource for purposes of CEQA.

The site was again recorded by Meals in 2008 as part of the *Archaeological Study for the Deer Creek Tribute Trail.* Additionally, as part of the Federal Emergency Management Agency (FEMA), *Nevada City Vegetation Management Fuel Reduction - Deer Creek* (FEMA, 2009), the URS Corp re-recorded an approximately 250-feet square portion of the Mine.

As noted in their updated site form, " In comparison to other nearby major mines, the Providence Mine is not as important or illustrative of the past as the nearby Champion Mine or the Empire Mines, located in Grass Valley. Generally, the the mine within the APE lacks distinctive features and characteristics from its historic-period. FEMA concluded, despite the above archaeological survey recommendations for NRHP eligibility, that the site would be treated as potentially eligible for purposes of their undertaking. Avoidance and monitoring measures were recommended during their undertaking.

5.0 SURVEY METHODOLOGY

A pedestrian survey of the proposed APE was conducted by Shellie Sullo, a United States Army Corps of Engineers Archaeologist on January 30, 2013. A total of 15 acres was subject to a 100 percent pedestrian survey. The foot print of the proposed project was examined with a 10 meter buffer examined on either side of the proposed undertaking. Visibility ranged from 40-100 percent.

6.0 SURVEY RESULTS

The following prehistoric site types can be expected to occur within the general area based on the results of previous survey work and ethnographic accounts: major occupation sites, temporary encampments, bedrock milling stations, hunting blinds, lithic scatters, tool stone quarries, and mortuary sites. Many exposures, and near a permanent water source. Historic resource types expected to occur within the general area include sites related to mining, water management, transportation (roads or railroads), logging, and early homesteads/settlements.

The records search indicated that there were no recorded prehistoric sites within the APE but the one historic feature was the Providence Mine. Associated features found within the Area of Potential Effect (APE) are stockpiles of mine waste rock, the inclined mine shaft, hoist works and various other mining related structures. Historic mining features observed within the APE include a large depression in the former shaft location, several relic concrete foundations and metal bolts protruding from the ground and an approximately 60 foot section of concrete wall facing a 10 foot cut slope in the southwestern portion of the APE. The Mine Site -CA NEV 276 H - was previously recorded in 1978 and rerecorded in 2008 and 2009. The site forms are on file at the NCIS.

6.1 Cultural Resources Identified

Providence Mine (CA NEV 276 H)

See Section 3.2.4 of this report for history and description of the Mine.

The mine property is concentrated northeast of the dirt Providence Mine Road and is across Deer Creek from the extant portions of the Champion Mine and is not currently in use as a mine. During the January 2013 site visit the conditions of the mine were similar to that as they were in 2009 when the site was re-recorded by URS (Attachment 3). The site form states" Previously recorded as a hard rock mine consisting of concrete slabs and piers, waste rock, several depressions, pond, rock wall, tunnel and a six inch pipe. The Pond was no longer evident or extant and the entire property was overgrown with vegetation. Additionally, most of the concrete features previously identified were not visible due to extensive vegetation, and significant portions of the rock wall were no longer standing or intact. Likewise, evidence of features or components recorded in documentary sources, such as the 40-stamp mill and chlorination plant were not identified during survey (Crawford 1894, Sanborn, 1898, Meals 2008). In comparison to nearby major mines, the Providence mine is not as important or illustrative of the past as the nearby Champion Mine or the Empire Mine located in Grass Valley. Generally, the portion of the mine within the APE laces distinctive features and characteristics from its historic Period". Additionally, the original 1978 site form, recorded by Storm is attached (Attachment 4).

7.0 CONCLUSIONS, FINDING OF EFFECT, AND RECOMMENDATIONS

The proposed undertaking will remove zero to four feet of waste rock deposits with the excavation not reaching native soil. Other areas of the APE will be filled with clean soil, aggregate and rock.

Based on the results of the records search, field investigations, and consultation with the Native American Heritage Commission (NAHC), The Providence Mine, CA NEV 276 H, is considered eligible for the National Register of Historic Places (NRHP) under Criterion D. No Native American cultural sites or sacred sites were identified within the APE associated with the proposed undertaking. The Providence Mine site and associated features may be considered eligible for the NRHP under Criterion D. The proposed undertaking will not have a) alter the characteristics of the property that qualify the property for inclusion in the NRHP or b) diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.

Although the Mine may be eligible for the NRHP, the proposed undertaking will result in **no historic properties adversely affected** in accordance with 36 CFR (800.5(d)(1). Additionally, no historic resources would undergo a substantial adverse change and be "materially impaired ", as defined by CEQA Guidelines, Section 15064.5, subdivision (b)(2).

If buried or previously unidentified resources are located during project activities, all work within the vicinity of the find will cease, and the provisions pursuant to 36 CFR Part 800.13(b) and CEQA Section 15064.5, subdivision (f) and would be implemented. If human remains are encountered the protocols set forth under Section 7050.5(b) of the California Health and Safety Code (CHSC) will be followed and CEQA Guidelines Section 15064.5, subdivision (e).

Prior to the initiation of the remediation action and before any ground disturbing activities take place at the proposed project site, the extant historic features of this site will be fenced off and flagged for avoidance. Workers on the site will be instructed to not to disturb these features.

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APPENDIX A

FIGURES