

DRAFT- REVISED

**Initial Study/Mitigated Negative Declaration
Eagle Bird Mine Reclamation Plan Project**



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Introduction

Pursuant to Title 14 of the California Code of Regulations, Section 15063 of the California Environmental Quality Act (CEQA) Guidelines, Sierra County (the County) is the Lead Agency preparing this Initial Study to analyze the potential environmental impacts associated with implementing the proposed surface mining reclamation plan for the Eagle Bird mine. While mining and reclamation activities could occur simultaneously during the active mining period, Sierra County does not have jurisdiction over the proposed mining Plan of Operations and impacts associated with implementing the Plan of Operations are not evaluated in this Initial Study. Environmental review for the Plan of Operations is under the jurisdiction of the U.S. Forest Service and subject to Federal environmental review in compliance with the National Environmental Policy Act.

PROJECT SUMMARY

- Project Title:** Eagle Bird Mine Reclamation Plan Project
- Lead Agency:** Sierra County Department of Planning and Building Inspection
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- Document Preparer:** DUDEK Environmental
- Project Location:** The Study Area is within the Tahoe National Forest (TNF) in Sierra County, approximately 4.6 air miles east-southeast from the unincorporated community of Downieville and ±2 miles south of State Route (SR) 49, which runs along the north bank of the North Yuba River. Please refer to the topographic site and vicinity map and aerial photo map provided in Figures 1 and 2. The Study Area is located in the south ½ of Section 4 and north ½ of Section 9, Township 19 north, Range 11 east. The approximate coordinates for the center of the Pedro Mine Claim site are 39.538 latitude and -120.746 longitude.
- The site is accessed from SR 49 near Downieville by taking Galloway Road to Henness Pass Road, to Forest Road 98, to Forest Route 19N19. Alternately, Henness Pass Road and the site can be reached from SR 49 near Camptonville by following Ridge Road to Pliocene Ridge Road to Henness Pass Road. The proposed area of disturbance, including onsite mining access roads, totals approximately four acres within previously-disturbed areas within eight mining claims known as the Eagle Bird Mine Claim Group.
- Project Sponsor:** Eagle Bird Mining Company LLC (EBMC)

Project Background: EBMC has submitted a *Plan of Operations, Reclamation Plan, and Financial Assurance Cost Estimate* to comply with the Surface Mining and Reclamation Act (SMARA) of 1975 (amended 1980), and to satisfy the agencies with jurisdiction over different components of the proposed mining operations and post-mining reclamation, including Sierra County, the U.S. Forest Service (USFS, Forest Service) the State Office of Mine Reclamation, and the Central Valley Regional Water Quality Control Board. The *Plan of Operations, Reclamation Plan, and Financial Assurance Cost Estimate* is referenced throughout this document and can be downloaded at the following website:
<http://www.sierracounty.ca.gov/index.aspx?nid=251>.

Under SMARA, Sierra County retains lead agency status under CEQA for approval of the proposed Reclamation Plan and Financial Assurance Cost Estimate, which constitutes the proposed project for CEQA purposes. The Reclamation Plan sets forth a plan for reclamation of the surface disturbances resulting from implementation of the Plan of Operations, while the Financial Assurance Cost Estimate provides the present-day cost to complete reclamation of the existing site and reclamation of the areas anticipated to be disturbed during the first year of operation. Permitting and environmental review of the proposed Plan of Operations is under the authority of the USFS.

General Plan Land Use Designation: Forest

Zoning District: General Forest (GF)

Existing Land Uses: The Study Area is within the Tahoe National Forest and is open to the public for recreational uses. No active logging or mining operations occur on the site, though active logging operations are occurring in the vicinity. The proposed project area has been disturbed by historical mining operations and two buildings and a variety of equipment and debris from historical mining operations is scattered around the site.

Supporting Technical Documents, Figures and Plans: The figures, attachments, and project documentation referenced in this document depicting site plans/project designs are for general reference purposes. The *Plan of Operations, Reclamation Plan, and Financial Assurance Cost Estimate* submitted for the mining and reclamation project is referenced throughout this document and is available for viewing and download at <http://www.sierracounty.ca.gov/index.aspx?nid=251> or upon request from the Sierra County Department of Planning and Building Inspection. Select figures from that document are included as Attachment A to this Initial Study.

PROJECT DESCRIPTION

Background and Context

The project proponent, Eagle Bird Mining Company LLC (EBMC), is proposing to conduct mining operations on five of nine existing mining claims known as the Eagle Bird Mine Claim Group. The Eagle Bird Mine Claim Group consists of nine claims including: Patrick, Eagle Bird, Eagle Bird No. 1, Elcy, Annex, Pedro, Pedro No. 1, Golden Slipper, and Dorothy Millsite. The five claims planned for mining are the Pedro, Eagle Bird, Patrick, Elcy, and the Annex. The Eagle Bird Mine Claim Group is depicted in Figure 4 of the *Plan of Operations, Reclamation Plan, and Financial Assurance Cost Estimate* prepared by Condor Earth Technologies (2014; select figures included in Appendix A). The site is located within the Tahoe National Forest in Sierra County near the community of Downieville. From Downieville, access to the Study Area is via Galloway Road and Henness Pass Road, which are dirt and gravel-surfaced roads.

EBMC has submitted a Plan of Operations, Reclamation Plan, and Financial Assurance Cost Estimate to comply with the Surface Mining and Reclamation Act (SMARA) of 1975 (amended 1980), and to satisfy the agencies with jurisdiction over different components of the proposed mining operations and post-mining reclamation, including Sierra County (the County), the State Office of Mine Reclamation (OMR), the U.S. Forest Service (USFS), and the Central Valley Regional Water Quality Control Board (RWQCB).

Pursuant to requirements of the California Water Code, EBMC submitted a Report of Waste Discharge to the Central Valley RWQCB for the purposes of determining a waste management strategy that prevents the pollution or contamination of waters of the State. Waste Discharge Requirements, which is the strategy approved by the RWQCB, become a mandatory provision in the Plan of Operations for the proposed mining activity, which is approved and administered by the Forest Service.

Under SMARA, Sierra County retains lead agency status under CEQA for approval of the proposed Reclamation Plan and Financial Assurance Cost Estimate. The Reclamation Plan sets forth a plan for reclamation of the surface disturbances resulting from implementation of the Plan of Operations, while the Financial Assurance Cost Estimate provides the present-day cost to complete reclamation of the existing site and reclamation of the areas anticipated to be disturbed during the first year of operation. SMARA regulations require the lead agency, in this case Sierra County, to require financial assurances for reclamation of land disturbed by mining activities.

Plan of Operations

The Plan of Operation (PoO) describes the proposed mining and processing operation. This section briefly summarizes the PoO. The entire draft PoO is available for download from the County's website at <http://www.sierracounty.ca.gov/index.aspx?nid=251>. The PoO focuses on exploratory and assessment activities necessary to evaluate the extent and quality of the resource; and, assuming a viable resource is present, stabilize the site, clean out collapsed tunnels, map, extract, and process ore. The PoO includes:

- An anticipated production averaging 40 tons per day (tpd) of ore grade material from one or several of the mine sites on the claim;
- both onsite and offsite processing of the ore for gold recovery; and
- the discharge of mine and process waste materials onsite.

Mining and processing operations occurred on the site in the mid-1880s, the 1910s, 1930s, and most recently in 1969 on the Eagle Bird Mine, though some mining activities have occurred since the site was recorded by the Forest Service in 1986 (Peak & Associates 2013). Past mining and processing within the Study Area has disturbed approximately 4.1 acres around mine workings and additional areas associated with access roads internal to the mine claims complex (Appendix A - Figure 7). The PoO proposes the re-opening of disturbed areas located on the Pedro, Patrick, and Eagle Bird claims and rehabilitation and limited exploration of the Elcy-Annex adit/tunnels. The Pedro No. 2 adit/decline would be evaluated for viability to access the existing workings or if an alternative decline would be warranted.

Mining activities are proposed to commence after all applicable permits are obtained from oversight agencies, which would likely be by Spring 2015. Operations would cease once mineral reserves are exhausted, with an assumed mine life of 25 years (assumed termination date of October 31, 2040). The site would be closed once reclamation activities are completed and approved by oversight agencies. It is noted that reclamation activities and mining operations could occur concurrently during the active mining period.

Mining and processing will begin at a low rate and gradually increase up to a maximum of 40 tpd average over the early years. While mining and processing rates are low, ore material up to 12-inch diameter will initially be transported offsite for final concentration and refining at a custom mill. Ore exceeding 12-inches would be stockpiled onsite for processing to 12-inch minus or less at a later date. A transition to onsite milling would occur as mining and processing rates increase. Anticipated waste to ore ratios range from 0.1 waste to 1 ore to 0.5 waste to 1 ore. At a production rate of 40 tpd ore, the anticipated annual production (6 months) is 7,200 tons of ore. At an average waste to ore ratio of 0.25/1, the total annual production is 9,000 tons, which equates to approximately 5,660 cubic yards. The total planned site waste rock and tailings storage capacity is 40,000 cubic yards and provides storage capacity to operate at 40 tpd for approximately seven years. No mining resources would be developed on the Eagle Bird No. 1, Dorothy Millsite, Pedro No. 1, or the Golden Slipper Claims.

All mining and processing activities and waste materials stockpiles are proposed to take place within previously disturbed areas, and in such a way as to avoid negatively impacting undisturbed areas in adjacent to active mining areas. The active mine operations area would be clearly field delineated onsite to prevent inadvertent disturbance outside of the proposed activity areas.

During the first season, the workforce would live in the existing four-bedroom house on the Eagle Bird Claim. The house would be replaced by the end of October during the first mining season with sufficient trailer(s) capacity equivalent to a four-bedroom residence. The existing metal shop

building on the Eagle Bird Claim would remain and be used to support mining operations. A watchman's trailer resting on native soil would be placed at the mill site on the Pedro Claim. Sewage disposal would be accommodated by the existing septic system onsite, subject to approval by the Sierra County Environmental Health Department, and portable lavatories that would be regularly serviced/pumped. Power would be provided by a generator and solar power. Water is proposed to be provided by onsite sources or brought in via truck if onsite sources are determined to be non-potable. Propane would be used for heating and cooking in onsite trailers and portable propane or kerosene heaters may be used as necessary during operations.

Reclamation Plan

The tasks proposed for mine reclamation include, in general terms, equipment removal and grading, revegetation, and monitoring and maintenance. The overall goal of reclamation is to attain a vegetative cover characteristic of surrounding undisturbed areas and to maintain or improve the value of habitat for wildlife and plants. The final land use proposed for the site is natural mixed conifer forest blended with the surrounding undisturbed forest land and wildlife habitat. The final use would be focused on maintaining existing surface and groundwater quality in the site and adjoining areas, in compliance with the terms and conditions of the Industrial Stormwater General Permit and Waste Discharge Requirements issued by the RWQCB.

Equipment and Facilities

Currently, there are several pieces of mining process equipment and buildings within the Study Area. Equipment on the Pedro Claim would remain onsite for possible use during operations. The house located on the Eagle Bird Claim would be removed by the end of October of the first mining season and onset of winter weather and would be replaced with residential trailer(s) with wooden covers (ramadas) to support snow loads. The trailer(s) would provide capacity equivalent to a four-bedroom residence. The existing metal shop building on the Eagle Bird Claim would remain for use during project operations, but would be removed once mining operations have ceased. Upon completion of mining operations, all mining and process equipment and facilities/buildings and concrete foundations would be removed from the site. Trailers and wooden ramadas on the Eagle Bird and Pedro Claims, would also be removed. Sewage disposal systems used during mining operations would be abandoned in compliance with Forest Service and Sierra County Environmental Health Department requirements. Prior to closure, all adits would be inspected for wildlife habitation by a qualified biologist and then closed in accordance with the recommendations and under the supervision of a qualified geotechnical engineer or other qualified professional approved by the County.

Soils and Grading

Mining activities are not expected to produce substantial amounts of soil since the activities are proposed to occur on previously disturbed land. The natural surface soil and subsoil would be stripped and stored in a stockpile on the Pedro Claim prior to re-disturbance. Stockpiled soil would be used for final ground cover of re-disturbed areas and would be a mixture of stockpiled soil/subsoil, weathered rock excavated during grading, inert fines excavated from settling ponds produced during operations, and chipped plant material from initial grading and subsequent

construction of Expansion Area No 2. Stockpiled soil would be seeded with a native grass mix and would not be disturbed until use in revegetation. Test plots would be constructed onsite and managed simultaneously with mining to determine the most appropriate planting procedures to be followed to ensure successful implementation of the proposed revegetation plan. Prior to test plot construction, a mixture of stockpiled soil/subsoil, weathered rock, and chipped plant material would be tested in a certified lab to determine the suitability of the soils for the planned vegetative cover.

Compaction of soil resulting from surface mining activities would be addressed by ripping, disking, or other means, to eliminate compaction and to establish a suitable root zone in preparation for planting in areas to be revegetated. All final waste rock and tailings fill slopes would be graded to conform to the surrounding topography. Waste rock would be compacted to a relative density of 60 to 80 percent. Grading for project operations has been designed to minimize slope angles and avoid erosion. All new mine waste features would have a maximum slope of 2 horizontal to 1 vertical (2H:1V), a maximum height of 50 feet, and the final ground cover would include a high percentage of coarser material mixed with fines to prevent erosion. Site grading is designed to direct runoff from sloped areas into drainage features and into the existing natural drainages and forest floor. Drainage and erosion control features would accommodate runoff from not less than a 20-year, 1-hour storm event. Grading requirements, erosion and sediment controls, and management of mine waste would be approved by the RWQCB as part of the Industrial Stormwater General Permit and Stormwater Pollution Prevention Plan, and Waste Discharge Requirements.

Reclamation Concepts

Past mining and processing on the site is estimated to have disturbed approximately 4.1 acres, excluding onsite mining access roads. Some of the previously disturbed areas exhibit natural revegetation.

The closure of adits and declines that contain tailings would be performed with a concrete bulkhead to eliminate potential threats to water quality from point-source discharge from the underground workings. No tailings are planned for disposal above steep slopes or at a greater than 3:1 slope.

Since the degree of past disturbances and natural revegetation vary widely between the different areas of historical mining disturbance, the following provides a description of proposed reclamation activities for each mining claim.

PEDRO NO. 1: Previous disturbances on the claim include the No. 2 Adit, mine waste dump, and a pond, as shown on Figure 7 of the *Plan of Operations, Reclamation Plan, and Financial Assurance Cost Estimate* (Appendix A - Figures). The adit entrance is caved in at the portal and is covered by fallen trees and natural revegetation. The mine waste, access road from the Pedro Claim, and the former pond are grown over with native vegetation. The PoO proposes no further disturbance on the

Pedro No. 1 claim, and reclamation activities are proposed to enhance the natural re-establishment of vegetation occurring on the areas previously disturbed by mining on this claim.

PEDRO: Previous disturbances on this claim include the No. 2 Adit decline, the No. 3 cut, two settling ponds, a large graded area between the No. 2 Adit and south of the settling ponds, the No. 5 Adit, and a small pond located in the southwest corner of the claim. Locations of these features are shown in Figure 7 in the *Plan of Operations, Reclamation Plan, and Financial Assurance Cost Estimate* (Appendix A - Figures). Photos of these features are provided in the *Plan of Operations, Reclamation Plan, and Financial Assurance Cost Estimate* (entire document available for download from the County's website at <http://www.sierracounty.ca.gov/index.aspx?nid=251>). The pond on this claim is completely grown over with natural vegetation and would need no further reclamation work. The No. 5 Adit is partially caved with tree roots growing across the entrance, and the waste dump has trees growing out of it (photos provided in the *Plan of Operations, Reclamation Plan, and Financial Assurance Cost Estimate*). The access to this mine is completely grown over and no longer visible. Due to the mature trees on the mine dump and the vegetation in the cut to the No. 5 Adit, no additional grading or revegetation is proposed to occur. Prior to closure of the No. 5 Adit, the adit and tunnel would be inspected for evidence of bats and other wildlife habitation by a qualified biologist and in compliance with established Forest Service protocols. If it is determined that adit closure will not adversely affect wildlife, the adit would be closed with a reinforced polyurethane foam plug and covered with dirt. If there is substantial evidence of use by bats, birds or small mammals, then a bat gate would be installed to eliminate human entry but allow continued use of the adit by wildlife.

The proposed mining and reclamation boundary in and adjacent to the No. 2 Adit decline and around the proposed mill site and settling ponds is shown on Figure 8 (Appendix A - Figures) and described in Sections 4.4.1, and 4.7 through 4.9 of the *Plan of Operations, Reclamation Plan, and Financial Assurance Cost Estimate* (available for viewing and download from the County's website at <http://www.sierracounty.ca.gov/index.aspx?nid=251>). The primary reclamation boundary would be clearly marked in the field to prevent inadvertent disturbance outside of the proposed boundary. Reclamation activities would include grading of fill slopes to a minimum of 2H:1V. On larger waste fills, the slopes would be constructed to a 2H: 1V slope as they are placed. The waste fills would be covered with soil/fines stockpile material if needed to fill in around coarse waste rock material, otherwise the fines would be saved for placement on flatter areas. Depressions such as the tailings storage basin and the settling ponds would be filled with inert waste rock, or waste material stockpiled nearby and capped with a mixture of finer inert waste rock, soil stockpile, inert tailings, and chipped material. All drainage and erosion control features would be left in place, with the exception of the surface diversion berm upslope from the Eagle Bird workings. The diversion berm would be breached at three locations approximately 100 to 125 feet on center to create four equal berm segments. Each breach will be four to six feet long and graded to match the existing topography to promote natural surface flow through the area, avoid concentrated runoff, and inhibit ponding. Shortly after operations have ceased, the No. 2 Adit would be filled with waste

rock material and closed with a concrete bulkhead, as described in Section 5.4 of the *Plan of Operations, Reclamation Plan, and Financial Assurance Cost Estimate*.

PATRICK: Past disturbances on this claim include the No. 2 Adit and the two small associated waste rock storage areas. The waste rock area below the access road, shown in Photo 2 of the *Plan of Operations, Reclamation Plan, and Financial Assurance Cost Estimate* (available for download from the County's website at <http://www.sierracounty.ca.gov/index.aspx?nid=251>), has naturally revegetated and no reclamation activities are proposed that would disturb this waste rock storage area. The upper waste rock storage area adjacent to the adit would be graded and revegetated in place if it is re-disturbed during mining activities. If mining activities do not disturb this waste rock, it would be left intact, as it has naturally revegetated. The existing adit would be backfilled with inert waste dump material or waste from the Eagle Bird waste dump and the adit would be closed with a concrete bulkhead as described in Section 5.4 of the *Plan of Operations, Reclamation Plan, and Financial Assurance Cost Estimate*. The surface of the adit fill and excavated waste dump material would be sloped to blend with the existing hillside and revegetated.

EAGLE BIRD NO. 1: No new disturbance or mining activity would occur at Eagle Bird No. 1. The existing disturbances, which include several discovery cuts, would be left in place since natural revegetation is already well established.

EAGLE BIRD: Disturbed areas on this claim include the mining activity on three levels from the No. 2 Adit and disturbed areas associated with historical mining upslope from the adit. Other disturbed areas include the mine dump adjacent to the adit, the old stamp mill foundation located below the toe of the mine dump, tailings on the forest floor down slope from the old mill, structures including the metal shop building and the two story house (to be replaced with temporary residential trailer(s)), and the small pond located south of the present house. The total disturbed area on this claim is estimated to be 1.1 acres. After mining activities have ceased, the proposed reclamation includes backfilling the No. 2 Adit with waste material and closing the adit with a concrete bulkhead as described in Section 5.4 of the *Plan of Operations, Reclamation Plan, and Financial Assurance Cost Estimate* (available for viewing and download from the County's website at <http://www.sierracounty.ca.gov/index.aspx?nid=251>).

Some older mine workings on the Eagle Bird Claim have collapsed and are partially filled. Several old surface pits also exist on this claim. Natural vegetation has established around these features. No further reclamation activities are proposed in these areas.

Potential surface subsidence from project operations would be filled with mine waste material. The surface would be graded to blend with surrounding topography prior to application of final soil cover and revegetation. The retention pond south of the residence and shop would be backfilled with the existing berm material and waste rock to blend with surrounding topography prior to application of final soil cover and revegetation. The waste dump opposite the No. 2 Adit would be sloped back on the top to achieve a 2H:1V final slope. The excavated waste would be stacked against the cut bank above the dump and sloped over the closed adit and adjoining cut slope as

shown on Figure 16 in the *Plan of Operations, Reclamation Plan, and Financial Assurance Cost Estimate* (Appendix A – Figures). The remaining level portion of the waste dump would be graded to divert sheet flow laterally to swales discharging to the forest floor and away from waste rock storage areas. All drainage and erosion control features would be left in place.

GOLDEN SLIPPER: Disturbed areas on the Golden Slipper Claim consist of four small discovery pits located downslope from the pond on the Eagle Bird Claim. The pits have been naturally revegetated and access to the pits cannot be found. No new mining activity is proposed on this claim and no further reclamation is proposed.

DOROTHY MILL SITE: Areas disturbed by past mining activities on this claim include a pond surrounded with native vegetation. The pond would be left in place. No further reclamation work is proposed.

ELCY: Historical mining disturbance on the Elcy Claim includes four discovery or exploration pits located just above the adits, and the excavated bank above the adits located on the Annex Claim, which is shown on Figure 7 (Appendix A – Figures) and in Attachment B of the *Plan of Operations, Reclamation Plan, and Financial Assurance Cost Estimate* (available for viewing and download at <http://www.sierracounty.ca.gov/index.aspx?nid=251>). The total area of historical disturbance is approximately 0.2 acres. The pits have grown over with native vegetation and no further reclamation activities are proposed for these pits. The only other disturbed area is a portion of the road that provides access to the adits on the Annex Claim.

ANNEX: Historical disturbance on this claim includes three adits and several small waste dumps. The total area of past disturbance is approximately 0.25 acres. All features are shown on Figure 10 (Appendix A – Figures) of the *Plan of Operations, Reclamation Plan, and Financial Assurance Cost Estimate* (available for download at <http://www.sierracounty.ca.gov/index.aspx?nid=251>). The No. 2 Adit is partially caved. Natural revegetation has occurred on the access road to the adit and the historical waste storage area. The adit would be inspected for wildlife habitation per established Forest Service protocols. If no evidence of wildlife use is found, it would be closed with a reinforced polyurethane foam plug and covered with dirt and rock using hand tools (shovels, picks, etc.) carried to the adit by site personnel. If there is substantial evidence of use by bats, birds or small mammals, a bat gate would be installed to eliminate human entry, but allow continued use by wildlife. To perform reclamation work, the No. 2 Adit site would be accessed on foot via the existing access road, and no modification to the small intermittent drainage would be required.

The No. 6 Adit and the access road to it have not been identified. However, once located, the closure of this adit is proposed to occur in the same manner as the No.2 Adit.

The locations of Adit Nos. 3, 4, and 5 are shown on Figure 10 (Appendix A – Figures) of the *Plan of Operations, Reclamation Plan, and Financial Assurance Cost Estimate*. The three adits have a common entry point that has collapsed, as shown in Photo 8 of the *Plan of Operations, Reclamation Plan, and Financial Assurance Cost Estimate*. Reclamation would include filling the adits with existing and new mine waste material to a depth of approximately 10 to 15 feet. The mine waste existing on the sides

of the entry to the adits and other waste that may be stockpiled in adjacent areas on previously disturbed ground would be placed over the adit fill and up against the vertical rock wall above the adit. The waste cover would be sloped in the direction of the entry road prior to placement of any available soil and waste fines. Revegetation would follow final grading and fines placement.

The other disturbance, thought to be waste deposited by an old three-stamp mill reportedly used for a short time, is shown in Photo 11 of the *Plan of Operations, Reclamation Plan, and Financial Assurance Cost Estimate*. This historical waste storage area has naturally revegetated and no further reclamation work is proposed.

ROADS: The USFS system roads providing access to the project area would be maintained with water bars and culverts to prevent erosion in compliance with Forest Service protocol for road maintenance; these roads would not be reclaimed. Mining access roads in the Study Area, those providing access from Forest Service roads to mining areas, would be reclaimed by installing water bars to control erosion, and then lightly ripping the compacted surfaces between water bars to slow runoff and create a rough surface to capture native plant seeds and promote natural revegetation. Native trees and shrubs would be planted by hand on the mining access roads in the density described below.

Revegetation & Grading

The objective of revegetation on the site is to attain a vegetative cover that is similar in diversity and canopy coverage to the surrounding undisturbed forest, and to maintain or enhance wildlife habitat in the disturbed areas. While most tree removal would occur as part of the mining operational activities, some tree removal could be necessary to conduct grading activities associated with reclamation work. The applicant would obtain approval from the Forest Service for any tree removal and all areas of tree removal would be revegetated according to the reclamation plan performance standards described below.

Prior to placement of soil cover and revegetation, test plots would be constructed onsite and managed simultaneously with mining to determine the most appropriate soil treatment and planting procedures to be followed to ensure successful implementation of the proposed revegetation plan. Prior to test plot construction, a mixture of the available soils/wastes would be tested in a certified lab to determine the suitability of the onsite soils for planting. Two approximately 12 feet by 12 feet test plots would be located at the site; one on the Elcy-Annex where somewhat excessively drained, loamy-skeletal, mixed soil typically 13 to 31 inches in thickness derived from metasedimentary rock is typical, and another in a location representative of soil conditions on the remainder of the site.

The existing vegetative canopy cover in the area ranges from 40 to 80 percent. The vegetation is classified as a mixed conifer forest with a canopy dominated by tree species including Douglas-fir, ponderosa pine, incense cedar, and white fir, and a shrub layer dominated by green leaf manzanita and mountain whitethorn.

The target final canopy cover of trees and shrubs would be 60 percent. The total vegetative cover would be greater as native and perennial grasses are planted between trees and shrubs. The target canopy cover would be achieved with a density of approximately 150 trees and shrubs per acre. Four species of trees and two shrub species would be used for revegetation onsite. Tree species used to revegetate the site would be approved by the Forest Service and could include Douglas-fir, Ponderosa pine, incense cedar, sugar pine and Jeffrey pine. Shrub species proposed for use in reclamation include green leaf manzanita and mountain whitethorn.

Additional herbaceous species and grasses would also be planted and would grow naturally in the understory. The canopy cover goal is anticipated to be met by hand planting seedlings at a spacing of approximately 12 feet over all newly disturbed areas, including mining claim roads. This density of planting will require 300 seedlings planted per acre, and assuming a 50 percent survival rate, would produce 150 plants per acre. A grass mix of California brome, blue wild rye, Spanish clover, and yarrow would be broadcast by hand in the areas between the seedlings.

Fertilization at planting time and monthly hand irrigation of approximately one gallon each per tree and shrub and additional fertilization during the summer months for the first three years of revegetation would be necessary to achieve a vegetative cover that would regenerate without continued dependence on irrigation or fertilizer and to achieve the goal of 50 percent survival rate after 5 years. Hand watering would be conducted through a perforated PVC pipe placed with the seedling at the time of planting. Seedlings would be planted per Forest Service guidelines, which include placing a small bag of slow release fertilizer in the hole during planting and placing a small amount of forest soil into the hole as an inoculant. The seedlings would be lightly mulched with native forest soil. Planting would likely be done in the early summer months to attain some initial growth prior to the following winter season. A USFS-approved contractor would perform the revegetation services. During the last two years of the establishment period the seedlings would not be watered or fertilized. Annual monitoring would be carried out to determine the success rate of revegetation plantings and remedial measures would be prescribed if planting success rate is not meeting target densities. Annual monitoring of vegetation would also record the annual growth of a selected sample of plants. The sample size and methodology for monitoring will be designed to produce an 80 percent confidence level. The potential invasion from noxious weeds would be eradicated by hand grubbing or other USFS-approved methods. No herbicides would be used on USFS property and all ongoing noxious weed eradication would be reported to the USFS.

Monitoring Plan

The reclaimed land would be monitored once each year until success criteria are met to assess the effectiveness of the reclamation process. The inspection would take place in the summer or fall season, and would note any erosion concerns that need repair, and general plant vitality and growth of a selected sample of seedlings. Inspections would also note if there is a need for additional irrigation or fertilization of seedlings. An inspection report would be prepared and submitted to the mine owner/operator, the Lead Agency, the USFS, and the RWQCB. Monitoring would be performed by a qualified professional approved by the County and the USFS.

Permits and Approvals Needed

The following permits and approvals are required or could be required for the proposed reclamation project:

- Sierra County
 - Approval of SMARA Reclamation Plan and Financial Assurance Cost Estimate
 - Septic Permit for installation of new septic system (if required)
 - Demolition Permit for removal of existing structures
 - Encroachment Permit for maintenance and snow clearing on the County road system (if necessary)
 - Transportation Permit in the event that temporary hauling during reclamation exceeds legal load limits
- U.S. Forest Service
 - Plan of Operations and Reclamation Plan for mine operation and reclamation activities
 - Special Use Road Permit to authorize commercial hauling on Forest Service system roads
- Regional Water Quality Control Board, Central Valley (Region 5)
 - Waste Discharge Requirements for the treatment, storage, and disposal of mining waste (amended into the approved Plan of Operations for mining and the reclamation plan);
 - Obtain coverage under the Industrial Activities Stormwater General Permit, which includes preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) that includes Best Management Practices (BMPs) for stormwater quality discharges from mining and reclamation activities;
 - A 401 Water Quality Certification could also be required for any impacts to waters of the State identified onsite.
- California Department of Fish and Wildlife – A Streambed Alteration Agreement pursuant to Section 1600 et seq of the California Fish and Game Code would be required for any impacts to waters of the State resulting from reclamation activities.
- U.S. Army Corps of Engineers: A Section 404 permit would be required for any impacts to wetlands/waters of the U.S. resulting from reclamation activities.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

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

- | | | |
|---|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology/Soils |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards& Hazardous Materials | <input type="checkbox"/> Hydrology/Water Quality |
| <input type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise |
| <input type="checkbox"/> Population / Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Transportation/Traffic | <input type="checkbox"/> Utilities / Service Systems | <input type="checkbox"/> Mandatory Findings of Significance |
| | | <input checked="" type="checkbox"/> None with Mitigation |

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed from an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

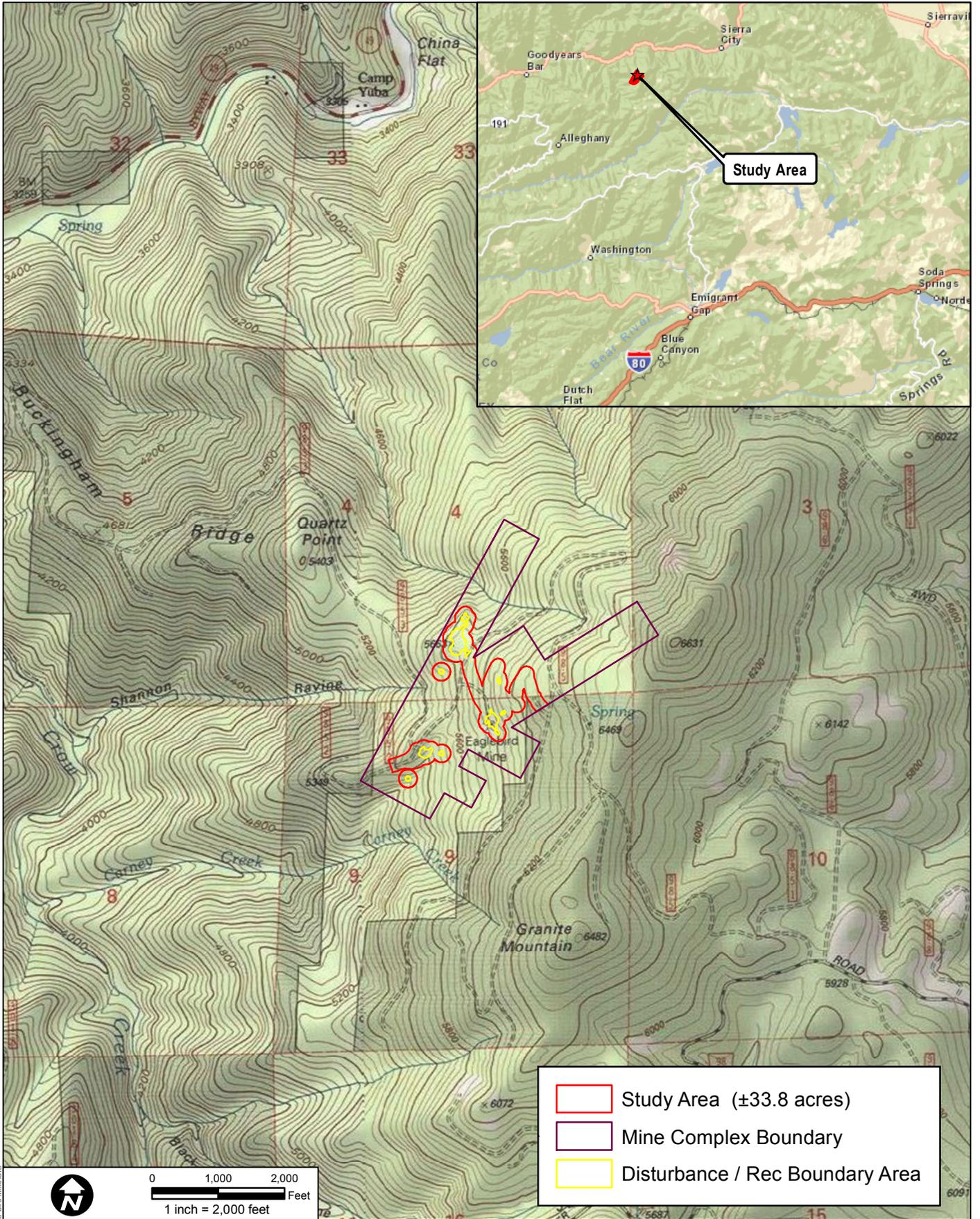
I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature _____

Date: _____

Printed Name: Brandon Pangman

For: Sierra County



DUDEK

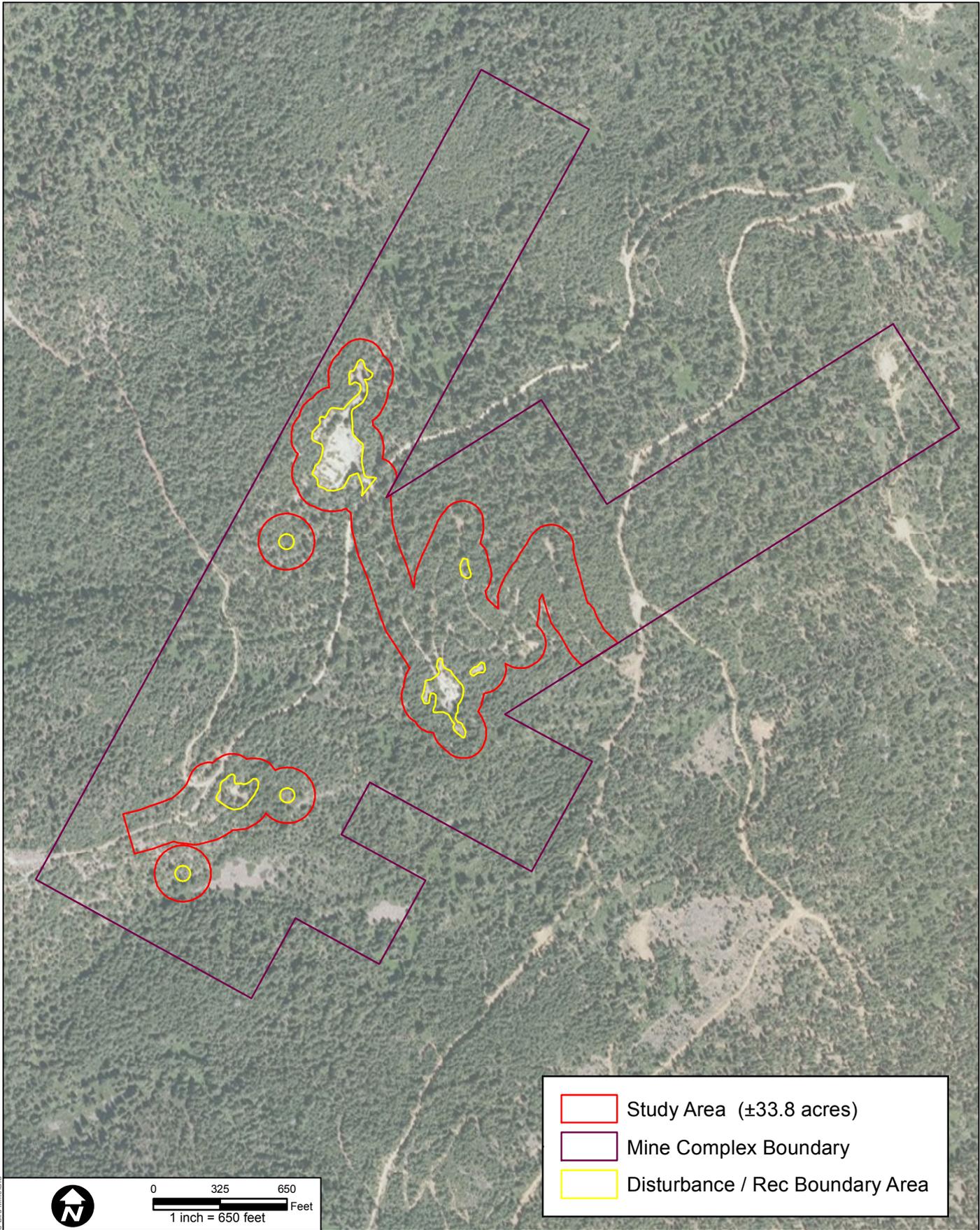
Eagle Bird Mine Claim Complex

Tahoe National Forest
Sierra County, CA

USGS Base Map: Sierraville, CA
7.5 minute topographic quadrangle
Sections: 3, 9, 4
Township: 19N
Range: 11E

FIGURE 1
Site & Vicinity

7506-1



	Study Area (±33.8 acres)
	Mine Complex Boundary
	Disturbance / Rec Boundary Area



0 325 650
 Feet
 1 inch = 650 feet

DUDEK

7506-1

Eagle Bird Mine Claim Complex

Tahoe National Forest
 Sierra County, CA

FIGURE 2
Aerial Photo

Source: Esri, i-cubed, USDA, USGS, AEX, GeoEye, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community



View into forested area. Looking southeast from edge of disturbed area on the Pedro claim site. Note small average stem diameter and small diameter downed woody material in this area.



View to northeast upstream along intermittent drainage just east of the Annex No. 3 Adit. Note sparse riparian shrubs; incised channel through tailings. Vegetation is sparse except on wet substrate in channel.



Looking east to opening of Adit No. 2 on the Annex claim. Open adits exist on the Eagle Bird, Pedro, and Annex claims.



View southeast from access road to Eagle Bird mine site. Adit No. 2 is to left of metal shed in photo. Water in photo is from spring/seep that drains from the adit opening.

EVALUATION OF ENVIRONMENTAL IMPACTS:

I. AESTHETICS –	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The Study Area is in a remote area within the Tahoe National Forest that is accessed by USFS paved and unpaved roads. Vehicular access to all portions of the mine site is limited and snow frequently prohibits access to the Study Area during winter. Padlocks and a gate restrict vehicular access to the Eagle Bird claim area and the existing buildings onsite. No active logging or mining operations occur within the Study Area, though the Forest Service road providing access to the mine, Forest Route (FR) 19N19, is used by timber operators for access to harvest sites and landings near the Study Area and sees heavy use during harvesting operations. The proposed project area has been disturbed by historical mining operations, and two buildings and a variety of equipment and debris are scattered around the site. The site is characterized by these and other signs of past mining operations, including areas of cleared vegetation, excavated ponds, dirt-surfaced mining access roads, and graded processing and work areas (Figure 2 – Aerial Photo Map, Figure 3 – Site Photos). The areas of historical mining disturbance are within and surrounded by dense mixed conifer forest. The Pedro site is visible from FR 19N19, while only access roads serving the other claim sites are visible from the roadway. The proposed mining sites are generally situated on a north facing slope along the Yuba River Canyon at an elevation several hundred feet above the river (Figure 1 – Site and Vicinity Map).

Views from the Study Area are generally local and of forested areas. No designated scenic vista is available from the Study Area and the Study Area is not an important component in any designated scenic viewshed and is not visible from Forest Service roads except for those adjacent to the claim sites. The Study Area is not visible from State Route (SR) 49, which is a designated Scenic Highway (California Department of Transportation, 2014). The proposed reclamation project is located outside Sierra County’s Scenic Corridor (-SC) Overlay zone district and the aesthetic standards applied by this zone overlay do not apply to activities within the Study Area. No artificial source of lighting exists in the Study Area.

Impacts

- a. Mine reclamation would be conducted to stabilize, contour grade to better match surrounding topography, and to revegetate the site following mining disturbance. No designated scenic vistas occur on the site and the site is not an important component of

any scenic vista in the area. No mining or reclamation activities would be visible from SR 49 or FR 98. Only portions of mine roads and the Pedro site would be visible from FR 19N19. Mining and reclamation activities would result in temporary impacts to the scenic quality of the area, including as viewed from FR 19N19, but reclamation work would stabilize and revegetate the area to approximate a more natural forested condition. Trailers used for living quarters during mining and reclamation would not be visible from FR 98 or FR 19N19, and would be removed as part of implementing the proposed reclamation plan.

The project would result in no substantial long-term adverse effects on scenic vistas from area roadways, including SR 49. Accordingly, impacts to scenic qualities of the area resulting from mine reclamation activities would be less than significant.

- b. State Route 49 is the nearest roadway carrying a state Scenic Highway designation. The Study Area is not visible from SR 49. No impacts to scenic resources within a state scenic highway would occur as a result of the proposed project.
- c. The proposed mine reclamation would be conducted to provide for the protection and subsequent beneficial use of the mined and reclaimed land. The reclamation of the site would involve removal of mining equipment, concrete foundations, and buildings and grading and revegetation of site topography disturbed by mining activities. Final land use proposed for the site is natural mixed conifer forest. This would be consistent with the surrounding undisturbed forest land. Because the proposed reclamation plan would take the site from a developed mining site to a more natural forested condition to integrate with the forest in surrounding areas, the proposed project would result in no impacts associated with degradation of the visual character or condition of the site.
- d. The proposed mine reclamation plan includes no addition of permanent or long-term onsite lighting and would create no new sources of glare in the project area. The project would result in no impacts associated with the addition of light or glare.

Mitigation Measures

No mitigation measures are necessary.

II. AGRICULTURE AND FOREST RESOURCES –	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| d) Result in the loss of forest land or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Setting

The Study Area is designated Timber and Range in the Tahoe National Forest’s Land and Resources Management Plan (LRMP) which allows for multiple uses including timber harvest, mining, livestock grazing, and recreation. The Study Area is zoned General Forest and designated as Forest in the Sierra County General Plan. The Study Area includes several established mining claims. It has been actively mined off and on since the 1880s; however, it has been mostly dormant since 1969. The Study Area carries no Farmland designation and is not under a Williamson Act contract. In its present state, the Study Area is a substantially disturbed abandoned underground hard rock gold mine with surface facilities including access roads, adits, tunnels, abandoned mining equipment, and man-made structures. Prior to the proposed reclamation project, the site will be an active hard rock gold mine with associated surface facilities.

Impacts

- a. - c. No land designated by the state of California as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance occurs in the Study Area; therefore the proposed project would have no impact on these lands. The project site is not under a Williamson Act contract; therefore the project would not be in conflict with local zoning or Williamson Act contracts supporting agricultural uses. The project proposes no change in existing zoning and would result in no conflicts with the existing zoning and would not require the Study Area to be rezoned. The project would result in no impact to agricultural resources or conflict with any timberland production zoning.
- d. - e. Several trees may be removed to allow for reclamation activities and as a result of grading, but the proposed project would be carried out within established mining claim sites and would restore the site to a forested condition consistent with the performance standards for vegetative cover identified in the reclamation plan and thereby increase the forest resources in the area over the post-operational condition. The proposed reclamation project would therefore result in no loss of forest land or conversion of forest land to non-forest uses. The final land use proposed for the site is natural mixed conifer forest. The proposed project would have a less than significant impact associated with the loss or conversion of farmland or forest land to non-agricultural or non-forest uses.

Mitigation Measures

No mitigation measures are necessary.

III. AIR QUALITY –

Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The project site is located within the Mountain Counties Air Basin (MCAB), within the jurisdiction of the Northern Sierra Air Quality Management District (NSAQMD). Most of the air pollution generated within the District comes from local motor vehicle emissions and dust emissions resulting from ground disturbance and wildfire. Air quality in the immediate project vicinity is influenced by emissions from motor vehicles traveling on SR 49, as well as emissions from timber harvesting/logging/agricultural activities, use of construction and landscaping equipment, wood-burning appliances, and seasonal wildfires. Sierra County is in attainment for state and national air quality standards for nitrogen dioxide and sulfur dioxide. The County is in non-attainment for state standards for respirable particulate matter (PM10) and is unclassified for fine particulate matter (PM2.5), ozone and carbon monoxide. No sensitive receptors occur within several miles of the Study Area.

NSAQMD has adopted Rules that govern emissions of air pollutants in the MCAB. Those applicable to the proposed project include:

Rule 205, Nuisance. This rule prohibits the discharge of air contaminants or other material from any source which cause injury, detriment, nuisance, or annoyance to any considerable number of persons, or to the public, or which endangers the comfort, repose, health, or safety of any such persons, or the public or which cause to have a natural tendency to cause injury or damage to business or property

Rule 226, Dust Control. This rule states, “A dust control plan must be submitted to and approved by the Air Pollution Control Officer before topsoil is disturbed on any project where more than one (1) acre of natural surface area is to be altered or where the natural ground cover is removed.” The Dust Control Plan requirements are typically included by enforceable conditions included on the project grading plans (NSAQMD, 1994).

NSAQMD's *Guidelines for Assessing and Mitigating Air Quality Impacts of Land Use Projects* (NSAQMD 2009) provides a tiered approach to analyzing criteria pollutant emissions impacts. Thresholds of significance are based on a source's projected impacts and are a basis from which to apply mitigation measures. The NSAQMD's tiered approach to significance determination levels is divided into Levels A, B and C. A project with emissions meeting Level A thresholds will require the most basic mitigation measures. Projects with projected emissions in the Level B range will require more extensive mitigation measures. Projects which exceed Level C thresholds will require the most extensive mitigation measures. The tiered thresholds from Levels A, B and C are provided in Table 3.2-3 below.

**Table 3.2-3
NSAQMD-Recommended Thresholds of Significance**

ROG	NO _x	PM ₁₀
<i>Level A</i>		
<24 lbs/day	<24 lbs/day	<79 lbs/day
<i>Level B</i>		
24-136 lbs/day	24-136 lbs/day	79-136 lbs/day
<i>Level C</i>		
>136 lbs/day	>136 lbs/day	>136 lbs/day

Source: NSAQMD 2009

If emissions for NO_x, ROG and PM₁₀ exceed 136 pounds per day (Level C), then NSAQMD advises the Lead Agency that the project is likely to result in a significant impact to air quality. Impacts below a Level C are considered potentially significant prior to implementation of mitigation.

No ultramafic soils, or soils with potential to contain naturally occurring asbestos, are mapped on the project site (USDA, 2014).

Impacts

a. - e.

Construction Phase Emissions

The proposed project would involve limited operation of construction equipment, such as excavators and loaders, and on-highway trucks used to haul material to a landfill. The use of this construction equipment and on-highway trucks would generate GHG emissions associated with vehicle exhaust. The amount of activity at each individual claim site is very limited, ranging between 4 and 48 total hours of equipment operation and truck trips combined. Several claim sites could be subject to reclamation activities within a single year. Modeling was completed using the CalEEMod program to estimate the air pollutant emissions associated with annual operation of equipment and trucks. Table 1 below shows the number of hours of equipment and truck use assumed to occur on a given day of reclamation operations, which was used to model emissions. In addition to the hours of equipment use identified in Table 1, modeling assumed an average of 16.7 on-highway material hauling trips per day.

Table 1– Daily Equipment and Truck Use

<i>Equipment Type</i>	<i>Hours operated per day</i>
Excavator	8
Concrete/Industrial saws	6
Rubber tired dozer	4
2 Loaders	14
Grader	8
Total	40

As discussed above, the NSAQMD has adopted tiered thresholds of significance to identify when a project may have a significant impact on air quality. As shown in Table 2, the air pollutant emissions generated by construction equipment use and truck hauling trips would remain below the NSAQMD thresholds and the project would have a less than significant impact related to air pollutant emissions. For most pollutants, the project emissions would be within Level A of the NSAQMD thresholds, while for NO_x, the project emissions would be within Level B.

Table 2– Maximum Daily Emissions and Thresholds

	ROG	NO _x	PM ₁₀
<i>Maximum Daily Emissions</i>	3.88	38.03	5.67
<i>Pollutant Threshold (NSAQMD)</i>	<24 (Level A)	24-136 (Level B)	<24 (Level A)
Threshold Exceeded?	No	No	No

As shown, daily construction emissions would not exceed the NSAQMD Level A threshold for ROG, and would not exceed the NSAQMD Level B thresholds for NO_x and PM₁₀; therefore, impacts associated with criteria pollutant emissions within the NSAQMD jurisdiction would be less than significant. Due to the nature of the project, no mitigation measures recommended in the NSAQMD *Guidelines for Assessing and Mitigating Air Quality Impacts of Land Use Projects* for Level B thresholds would apply to the proposed project. It is noted that in accordance with District Rule 226, implementation of the reclamation plan at each claim site would require submittal of a Dust Control Plan to the District for approval prior to any surface disturbance, including clearing of vegetation. The NSAQMD Guidelines and rules require dust control plans to ensure that dust emissions are reduced to the extent feasible.

Operational Emissions

Activities that would generate pollutant emissions would cease upon completion of site reclamation and the only longer term emissions generator would be related to post-construction site monitoring. Site monitoring of success would require several vehicle trips a year and would result in minimal pollutant emissions. The reclamation project would result in no new long-term source of pollutant emissions, as the intent of the project is to restore land to its prior condition and not to continue any long-term use of the land. Impacts associated with long-term operation emissions would be less than significant.

Stationary source emissions

The proposed project would construct no new stationary emission sources. No impact to air quality is anticipated from stationary source emissions.

Mitigation Measures

No mitigation measures are necessary.

IV. BIOLOGICAL RESOURCES –	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

In April 2013, Dudek staff prepared a Biological Resource Assessment of the +/- 34 acre Eagle Bird Mine project site in Sierra County, CA. The study included all land within 100 feet of the anticipated area of disturbance, including onsite roads. The project site occurs approximately 4.6 miles east-southeast from Downieville, and about 2 miles south of SR 49 along the north bank of the

North Yuba River in the US Forest Service Yuba River Ranger District. The proposed project site is surrounded by underdeveloped forested lands.

Two biological communities were identified: approximately 30.13 acres of Sierran mixed conifer forest and approximately 3.67 acres of disturbed area including areas of past mining disturbance and roads. Dominant species in the Sierran mixed conifer forest include white fir and Ponderosa pine, with subdominants including, incense cedar, sugar pine, and Douglas-fir. Sparse understory of greenleaf manzanita, pinemat manzanita, deer brush, bush chinquapin, huckleberry oak, mountain whitethorn, creeping snowberry, serviceberry, wild rose, Scouler's willow, brown dogwood, bracken fern, and a sparse herbaceous cover is present along the edges and openings of disturbed areas. A poorly developed montane riparian community is present as a subcomponent of the Sierran mixed conifer community just east of the main adit entrance on the Annex claim site. Species representative of this community include mountain alder, wild rose, willow, dogwood, and thimbleberry.

Wildlife observed were common resident and migratory bird species including: common raven, Steller's jay, northern flicker, mountain chickadee, mule deer, and Douglas' squirrel. Black bear tracks were also observed on site. Coyote, skunk, a variety of rodents and other common small mammals likely inhabit the area. Open mine adits could potentially provide roosting and hibernating habitat for several bat species, although none were observed during daytime reconnaissance surveys. Nighttime surveys conducted in 2009 in the Study Area by the Forest Service detected bats but no roosting in open adits.

No wetland delineation was conducted. However, the intermittent drainage that bisects the Study Area on the Annex claim site appears to meet criteria to be subject to regulation under the Clean Water Act. A seep in the Eagle Bird No. 2 Adit and constructed ponds on Eagle Bird and Pedro claim sites appear to be isolated features, and would likely not be subject to regulation under the Federal Clean Water Act. These features will likely fall under regulatory jurisdiction of the RWQCB and the California Department of Fish and Wildlife (CDFW) under Section 1602 of the Fish and Game Code. Section 1602 requires an entity to notify CDFW before: 1) substantially diverting or obstructing the natural flow of a river, stream, or lake; 2) substantially changing the bed, channel, or bank of a river, stream, or lake; 3) using any material from the bed, channel, or bank of a river, stream, or lake; and/or 4) depositing or disposing of debris, waste, material containing crumbled, flaked, or ground pavement where it may pass into a river, stream, or lake. Bed, bank and channel is defined as the shoreline, associated riparian vegetation and floodplain. Ephemeral streams and stream headwater areas are regulated under this code section. A determination of whether or not a Lake and Streambed Alteration Agreement will be necessary for the undertaking is made only after CDFW receives a Notification (form and fee) and the project is reviewed by staff. Typically the terms and conditions of the Agreement require that all streams and headwater features be restored to approximate either pre-project conditions or conditions of similar nearby undisturbed or restored streams, whichever is determined to provide the most benefit to wildlife resources.

A search of the California Natural Diversity Database (CNDDDB) and lists maintained by the California Native Plant Society (CNPS) and the U.S. Fish and Wildlife Service identified 18 special-status plant species, and 14 special-status wildlife species with potential to be supported by habitats that occur within the project area. The TNF Sensitive Species List was also consulted, and listed 11 plant species and five wildlife species with potential to be supported by habitat on the project site. The TNF Watchlist for plants includes three species that could occur in the project area. The site is

also potentially suitable for 12 species that are candidates for Forest Service Sensitive or Watchlist designation. Some plant and wildlife species are included in more than one list; all designations and listings are shown in Table 3, below. Dudek staff determined that project site conditions are potentially suitable for 28 special-status plant species and seven special-status wildlife species.

Table 3: Special-Status Species with Potential to Occur in the Study Area

Species	Federal	State	CNPS	Habitat	Potential for Occurrence**
Plants					
Triangle-lobe moonwort, <i>Botrychium ascendens</i>	USFS-S	-	2.3	Riparian plant communities above 4,000 feet.	Possible. Wet areas onsite could support these species. Not known from Study Area. Study Area is above normal elevational range of these species. Only <i>B. ascendens</i> and <i>B. crenulatum</i> are known from the TNF, but not near the Study Area.
Scalloped moonwort, <i>Botrychium crenulatum</i>	USFS-S	-	2.2		
Common moonwort, <i>Botrychium lunaria</i>	USFS-S	-	2.3		
Mingan moonwort, <i>Botrychium minganense</i>	USFS-S	-	2.2		
Mountain moonwort, <i>Botrychium montanum</i>	USFS-S	-	2.1		
Bolander's bruchia <i>Bruchia bolanderi</i>	USFS-S	-	2.2	3800-9,500 feet, moist/riparian areas.	Possible. Wet areas could support this species. Occurrences known from Forest Road 98.
Davy's sedge <i>Carex davyi</i>	-	-	1B.3	Subalpine coniferous forest; upper montane coniferous forest.	Possible. Wet areas and forest could support this species.
Woolly-fruited sedge <i>Carex lasiocarpa</i>	USFS-U	-	2.3	Wetlands/fens/peatlands, above 6,000 feet	Possible. Riparian, ponds, and seeps in the Study Area are potential habitat for these species.
Mud sedge <i>Carex limosa</i>	USFS-U	-	2.2	Wetlands/fens/peatlands, 4,000 to 8,700 feet	Possible. Riparian, ponds, and seeps in the Study Area are potential habitat for these species.
Northern meadow sedge <i>Carex praticola</i>	USFS-U	-	2.2	Meadows, < 10,000 feet	
Sheldon's sedge <i>Carex sheldonii</i>	USFS-U	-	2.2	Riparian, 4,000-5,000 feet	

Species	Federal	State	CNPS	Habitat	Potential for Occurrence**
Northern coralroot <i>Corallorhiza trifida</i>	USFS-U	-	2.1	Usually wetlands, meadows, edges, embedded in lower montane coniferous forest [mesic].	Possible. Wet areas are potential habitat. No CNDDDB or CalFlora occurrences in Sierra County.
Common cudonia <i>Cudonia monticola</i>	USFS-S	-	--	Coniferous forests, older, mixed (humus and rotting wood)	Possible. Down and dead woody debris on forest floor onsite provides marginal habitat for this species.
Clustered lady's slipper <i>Cypripedium fasciculatum</i>	USFS-S	-	4.2	Lower montane, mixed conifer, older forest, 500-7,200 feet, serpentine soils are strong indicator, seeps and streambanks.	Possible. Wet areas in Study Area are potential habitat.
Mountain lady's slipper <i>Cypripedium montanum</i>	USFS-S	-	4.2	Lower montane mixed conifer, broad-leaved upland, older forest, 600-7,500 feet	Possible. Wet areas and forested areas are potential habitat.
Yellow willowherb <i>Epilobium luteum</i>	USFS-U	-	2.3	Lower montane conifer forest along streams and seeps, YRRD, < 6,000 feet	Possible. Wet areas in Study Area are marginal for this species. <i>Epilobium</i> species observed in riparian area.
American mannagrass <i>Glyceria grandis</i>	USFS-U	-	2.3	Bogs and fens; meadows; marshes and swamps (streambanks and lake margins), < 6,500 feet	Possible. Not known from vicinity of Study Area. Wet areas onsite are marginally suitable. <i>Glyceria</i> species have been observed in area.
Buttercup-leaf suksdorfia <i>Hemieva ranunculifolia</i>	USFS-U	-	2.2	Meadows and seeps; upper montane coniferous forest; [mesic, rocky, granitic]. moist, rocky crevices, 5,000-6,000 feet	Possible. Though no occurrences are known from Study Area, wet areas provide marginal habitat and site is at appropriate elevation for this species.
Santa Lucia rush <i>Juncus luciensis</i>	USFS-U	-	1B.2	Wetland/riparian, vernal wet areas, seeps; 1,000-6,200 feet.	Possible. Wet areas potentially suitable for this species. Occurrences known from similar habitat in Plumas and Nevada Counties. TNF occurrences from Donner Pass and Martis Peak areas.
Cantelow's lewisia <i>Lewisia cantelovii</i>	USFS-S	-	1B.2	Broad-leaved upland forest, chaparral, cismontane woodland; lower montane coniferous forest; mesic, granitic, 1,000-4,500 feet, outcrops in Yuba River drainages	Unlikely. Study Area is above normal elevational range of this species. Suitable rocky habitat lacking onsite.

Species	Federal	State	CNPS	Habitat	Potential for Occurrence**
Hutchison's lewisia <i>Lewisia kelloggii</i> subsp. <i>hutchisonii</i>	USFS-S	-	--	Forest edges / openings, rocky ridges, 5,200-7,000 feet.	Possible. Forest and edges potentially suitable. Occurrences known from vicinity of Study Area.
Kellogg's lewisia <i>Lewisia kelloggii</i> subsp. <i>kelloggii</i>	USFS-S	-	3.3	Forest edges / openings, rocky ridges, 5,400-9,000 feet.	Possible. Forest and edges potentially suitable. Occurrences known from Gold Lakes area.
Tall alpine aster <i>Oreostemma elatum</i>	USFS-C	-	1B.2	Wet meadows / peatlands / fens / seeps, mesic sites in upper/lower montane conifer forest, 2900 to 6200 feet	Possible. Wet areas are marginal habitat. Occurrences known from Plumas and Sierra Counties.
Closed-throated beardtongue <i>Penstemon personatus</i>	USFS-S	-	1B.2	Forested edges/openings, chaparral, lower/upper conifer forest, metavolcanic, 4,500-6,500 feet	Possible. Forest and disturbed areas are potential habitat. Occurrences known from vicinity of Study Area.
Olive phaeocollybia <i>Phaeocollybia olivacea</i>	USFS-S	-	--	Coniferous forest, older, mixed	Possible. Forest floor is potential habitat.
Sierra starwort <i>Pseudostellaria sierrae</i>	USFS-U	-	4.2	Chaparral, cismontane woodland, lower/upper montane coniferous forest. Openings, 4,000-7,000 ft.	Possible. Openings and disturbed areas in Study Area are potential habitat.
Alder buckthorn <i>Rhamnus alnifolia</i>	USFS-U	-	2.2	Upper and lower montane coniferous forests; meadows and seeps; riparian scrub; 4,500-7,000 feet.	Possible. Riparian area is potential habitat. Not identified during field surveys.
Marsh skullcap <i>Scutellaria galericulata</i>	USFS-W	-	2.2	Lower montane coniferous forest, meadows, marshes, swamps, 4,000-7,000 feet	Unlikely. Riparian area is marginal habitat. Not known from area; not identified during reconnaissance surveys.
Marsh hedge-nettle <i>Stachys pilosa</i>	USFS-U	-	2.3	Great Basin scrub, seeps, open wet meadow , <6,500 feet	Possible. Wet areas onsite are potential habitat. Nearest occurrence from Gold Lake Quad.
Slender-leaved pondweed <i>Stuckenia filiformis</i>	USFS-W	-	2.2	Aquatic, marshes and swamps, shallow water, 1,000-7,000 feet	Unlikely. No suitable aquatic habitat occurs in the Study Area.

Species	Federal	State	CNPS	Habitat	Potential for Occurrence**
Howell's tauschia <i>Tauschia howellii</i>	USFS-S	-	1B.3	High elevation openings/rocky areas, gravelly substrate, 5,500-8,500 feet	Possible. Occurrences known from Keystone Gap area of TNF. Substrate marginal onsite; most suitable near Annex claim.
Birds					
Bald eagle <i>Haliaeetus leucocephalus</i>	USFS-S	CE	--	Occurs along shorelines, lake margins, and rivers. Nests in large, old-growth or dominant trees with open branches.	Unlikely. Study Area not in close proximity to large body of water.
Northern goshawk <i>Accipiter gentilis</i>	USFS-S	CSC	--	Dense, mature coniferous forests, most typically dense fir stands in the Sierra Nevada mountains.	Possible. Forested areas onsite provide suitable nesting habitat. Occurrences recorded within 2 miles.
California spotted owl <i>Strix occidentalis occidentalis</i>	USFS-S	CSC	--	Old-growth conifer and mixed conifer-hardwood forest in coastal and Sierra Nevada ranges.	Possible. Numerous occurrences within 2 miles of the Study Area. Protected Activity Center (PAC) SIE0065 approx. 1 mile west of Study Area.
Great gray owl <i>Strix nebulosa</i>	USFS-S	CE	--	Sierra Nevada in mature mixed conifer and red fir forests, adjacent to montane meadows within forested habitat. No regular seasonal migration; however, elevational migration with food availability may occur. Nests in broken top snag or mature fir.	Unlikely. Study Area is not in close proximity to open meadow foraging habitat. Old growth structure lacking. Nearest occurrences 13 miles ENE (1978), 17 miles SE (2010).
Willow flycatcher <i>Empidonax traillii</i>	USFS-S	CE	-	Breeds in extensive willow thickets on edge of wet meadows, ponds, or streams.	Unlikely. Riparian vegetation within Study Area does not support extensive willow thickets.
Yellow warbler <i>Dendroica petechia</i>	-	CSC	--	Breeds in riparian vegetation throughout California; populations in Sacramento and San Joaquin valleys are declining. Common in eastern Sierran riparian habitats below 8,000 feet.	Possible. Riparian band and shrub understory present in Study Area provide marginally suitable habitat.

Species	Federal	State	CNPS	Habitat	Potential for Occurrence**
Nesting Raptors****	-	CFP	--	Grasslands, large trees in woodland / forest / riparian communities.	Possible. Trees onsite provide suitable nesting habitat.
Amphibians					
Mount Lyell salamander <i>Hydromantes platycephalus</i>	-	CSC	--	Occurs only in the Sierra Nevada, from Sierra County south to Tulare Co. Occurs in habitat from about 4100 to 12,000 ft. Habitat consists of rock areas in mixed conifer, red fir, lodgepole pine, and subalpine habitats.	Unlikely. Massive rock outcrops with seeps not present in Study Area. Known from Sierra Buttes area in TNF.
California red-legged frog <i>Rana draytonii</i>	FT	CSC	--	Occurs in lowlands and foothills in deeper pools and slow-moving streams, usually with emergent wetland vegetation. Requires 11-20 weeks of permanent water for larval development.	Unlikely. Study Area above normal elevational range of this species. Unvegetated mining ponds, and other wet areas in the Study Area do not provide depth or duration of suitable aquatic habitat .
Foothill yellow-legged frog <i>Rana boylei</i>	USFS-S	CSC	--	Found in partially shaded, shallow streams with rocky substrates. Needs some cobble-sized rocks as a substrate for egg laying. Requires water for 15 weeks for larval transformation.	Unlikely. Study Area above normal elevational range of this species. No perennial aquatic habitat suitable for breeding occurs in the Study Area. All occurrences within several miles from perennial streams.
Sierra Nevada yellow-legged frog <i>Rana sierrae</i>	FC USFS-S	CT	--	Found from Plumas Co. to Fresno Co. above 4500 feet in the Sierra Nevada in streams, lakes, ponds. Require two years to complete development.	Unlikely. No perennial aquatic habitat suitable for breeding, overwintering, or metamorphosis occurs in the Study Area. All occurrences within several miles of Study Area are from perennial streams.
Reptiles					
Western pond turtle <i>Emys marmorata</i>	USFS-S	CSC	--	Inhabits ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Needs suitable basking sites and upland habitat for egg laying.	None. Study Area above normal elevational range of this species. No suitable aquatic habitat occurs in Study Area.

Species	Federal	State	CNPS	Habitat	Potential for Occurrence**
Mammals					
Western Red bat <i>Lasiurus blossevillii</i>	USFS-S	CSC	--	Forests and woodlands up to conifer forests. Roosts primarily in trees and occasionally shrubs.	Unlikely - Rare above 200 meters and typically associated with wider riparian corridors of mature sycamore and cottonwood that do not occur on any of the sites. Breeding restricted to lower elevations in CA (Pierson et al 2004).
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	USFS-S	CL	--	Found in a variety of habitats. Most common in mesic sites with forest or woodland component. Roosting and maternity sites in caves, mines, lava tubes, tunnels, and buildings. Gleans insects from brush or trees and feeds along habitat edges.	Possible. Mine adits are potential roosting habitat. Surveys conducted in the Study Area by the Forest Service in 2009 detected bats, but no roosting in open adits. Study Area at upper elevation of typical range of species.
Pallid bat <i>Antrozous pallidus</i>	USFS-S	CSC	--	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting.	Possible. Mine adits are potential roosting habitat. Surveys conducted in the Study Area by the Forest Service in 2009 detected bats, but no roosting in open adits. Study Area at upper elevation of typical range of species.
Sierra Nevada snowshoe hare <i>Lepus americanus taioensis</i>	-	CSC	-	Montane riparian habitats, with dense thickets of alder and willow. Early seral stage coniferous forest.	Unlikely. Species prefers thickets of deciduous trees in riparian areas. Riparian corridor is narrow and vegetation is sparsely developed. Nearest occurrence from 14 miles NE of site in 1929.
Sierra Nevada red fox <i>Vulpes vulpes necator</i>	USFS-S	CT	-	Occurs in conifer forests and rugged alpine landscape of the Sierra Nevada and Cascade ranges between 4,000 feet and 12,000 feet, most often above 7,000 feet.	Unlikely. Study Area below typical elevation range of this species and does not include fell fields or meadows. No occurrences recorded from vicinity of Study Area or TNF. Systematic surveys conducted throughout the Sierra from 1996 to 2002 failed to detect any Sierra Nevada red fox.
American marten <i>Martes americana</i>	USFS-S	-	--	Mixed evergreen forests with >40% canopy closure. Mixed-aged stands, particularly old-growth and snags that provide cavities for nests/dens.	Possible. Snags and downed debris in forested areas provide marginal habitat for this species. Nearest CNDDDB occurrence is approximately 6 miles NE of Study Area. Most sightings in TNF from higher elevations.

Species	Federal	State	CNPS	Habitat	Potential for Occurrence**
Pacific fisher <i>Martes pennanti pacifica</i>	FC USFS-S	CSC	--	Occurs in intermediate to large-tree stage late seral stage coniferous forests and riparian woodlands with a high percent level of canopy closure.	Unlikely. No confirmed occurrences in close proximity to site. Surveys have detected no fishers in this area of northern Sierra Nevada (Zielinski 2005). (Re-introduction effort in progress in Plumas County)
California wolverine <i>Gulo gulo luteus</i>	FC USFS-S	CT	--	Remote habitat free of human disturbance with dense cover.	Unlikely. Nearest unconfirmed observation in CNDDDB is from 10 miles SE (1971, Jackson Meadow). No individuals detected in 1991/1992 TNF study. Recent confirmed sighting near Sagehen Creek Field Station over 20 miles SE of Study Area. Preliminary DNA analysis indicates this individual is not a descendent of the last known Sierra Nevada population of California wolverine (USFS 2008).

*Status Codes:

Federal

FE Federal Endangered
 FT Federal Threatened
 FP Federal Proposed Species
USFS TNF Designation:
 USFS-S TNF Sensitive
 USFS-W TNF Watchlist
 USFS-U TNF Under consideration

State

CE California Endangered
 CT California Threatened
 CL Candidate for Listing
 CR California Rare (plants only)
 CSC California Species of Concern
 CFP California Fully Protected

CNPS

Rank 1B Rare, Threatened, or Endangered in California
 Rank 2 R, T, or E in California, more common elsewhere
 .1- Seriously threatened in California
 .2- Fairly threatened in California
 .3- Not very threatened in California

**Definitions for the Potential to Occur:

- **None.** Habitat does not occur.
- **Unlikely.** Some habitat may occur, but disturbance or other activities may restrict or eliminate the possibility of the species occurring. Habitat may be very marginal, or the Study Area may be outside the range of the species.
- **Possible.** Marginal to suitable habitat occurs, and the Study Area occurs within the range of the species.
- **Occurs:** Species was observed during surveys.

***Proposed for de-listing by USFWS in 2012.

****Protected under Fish & Game Codes and Federal Migratory Bird Treaty Act.

Impacts

- a. The proposed project would result in disturbance associated with removing buildings and equipment, decommissioning mine entrances and access roads, grading, re-vegetation, and maintenance. While the work would be conducted within areas previously disturbed by mining activities, which generally do not provide high value habitat for sensitive species, there is some potential for special-status species to nest or otherwise occupy or occur within areas that would be disturbed by reclamation activities, particularly if the site is inactive for a period of time between mining operations and initiation of reclamation activities, and for reclamation activities to result in direct or indirect impacts to special-status species. Impacts could include disturbance of active bird nests, bat roost sites, or

den sites, and direct impacts to special-status plants. Mitigation Measures BIO.1 and 2 require surveys for special-status plants and nesting birds prior to site disturbance and require that measures to avoid or minimize impacts to special-status plant and animal species be implemented if any of these species are found onsite. With implementation of these mitigation measures, impacts resulting from temporary and intermittent site disturbance from reclamation activities would be less than significant.

Reclamation activities would involve the use of heavy equipment and other vehicles that have potential to introduce non-native, noxious, and invasive plant species to the project area. Introduction of non-native species could affect sensitive habitat and has potential to adversely affect sensitive species in the project area and greater forest by outcompeting native special-status species or forming monocultures within sensitive habitat types. Mitigation Measure BIO-2 would reduce the risk associated with introducing weed species to the project site as a result of vectors associated with carrying out the proposed project.

The overall goal of reclamation is to rehabilitate areas disturbed by mining activities and attain a vegetative cover characteristic of surrounding undisturbed areas. In the final or operational condition, reclamation would expand and enhance onsite habitat for wildlife and plants. Implementation of the reclamation plan would return the area disturbed by mining activities to a mixed conifer forest vegetation community that would be consistent with pre-disturbance site conditions and the surrounding undisturbed forest areas. In the final or operational condition the proposed reclamation project would have no adverse effects on special-status species of plants or animals.

- b, c. A sparse, narrow riparian corridor exists within the Study Area along an intermittent drainage just east of the entrance to Adits 3, 4, and 5 on the Annex claim site. Other hydrologic features on the site include settling/storage ponds on the Eagle bird and Pedro claims, and a seep or spring that daylights at the entrance to the Eagle Bird No. 2 adit. Impacts to each of these features as part of reclamation work could be subject to regulation by the Corps, the RWQCB and CDFW. Implementation of Mitigation Measures BIO.3 and 4, which require the project to obtain appropriate permits and mitigate for impacts in accordance with the terms and conditions of the resource agency permits would ensure that impacts remain less than significant.
- d. Please refer to the discussion in 'a' above regarding impacts to special-status animal species and nesting birds and mitigation measures for impacts that could occur. While the project would result in some disturbance within the forested area, the site provides no habitat used for fish passage, does not comprise a critical wildlife movement corridor, and contains no known significant wildlife nursery sites. The intent of the reclamation project is to rehabilitate the site to a natural condition, thereby expanding and enhancing habitat on the project site. Reclamation activities would be temporary and intermittent and would result in less than significant impacts associated with substantial interference with fish movement, wildlife corridors, or use of native wildlife nursery sites.
- e. Reclamation activities would require removing some trees from the existing disturbed areas to grade the site in accordance with the reclamation plan. Tree removal would be carried out consistent with the approved reclamation plan and Forest Service regulations and would not conflict with any County ordinance for the protection of trees and all areas would be revegetated in accordance with the performance standards identified in the reclamation plan. The project would result in no impacts associated with conflicts with

local policies pertaining to the protection of biological resources.

- f. The project site is not subject to any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. The project area is subject to the Land and Resource Management Plan for the Tahoe National (Forest Plan, 1990) and amendments thereto. The proposed mining and reclamation project will be reviewed for consistency with the Forest Plan by the Forest Service prior to approving the Plan of Operations/Reclamation Plan and the Commercial Use Permit required to carry out mining activities. No impacts would result from conflicts with any local, State, or federal conservation plans.

Mitigation Measures

Mitigation Measure BIO.1-Special-Status Plants

1) Many of the special-status plant species with potential to occur inhabit wet habitats. To the extent possible, disturbance to the intermittent stream and areas that are inundated with water should be avoided or minimized.

2) Prior to site disturbance, floristic rare plant surveys should be conducted (according to current agency guidelines) within the areas of potential effect. The floristic surveys should be conducted during the appropriate blooming period(s) for the special-status species with potential to occur. The results of the survey should be provided to the Sierra County Planning and Building Department and the TNF YRRD District Botanist. Should any individual special-status plant species be located, the applicant shall retain a qualified biologist to develop and implement a mitigation plan in coordination with the agencies with jurisdiction over the species discovered (USFWS, CDFW, and USFS). Depending on the species and its listing status, appropriate measures could include avoidance, impact minimization, transplanting, restoration, and soil/seed salvage.

3) *Noxious / Invasive Plants*: To avoid introducing non-native noxious or invasive weeds to the project area, the following measures shall be implemented by the applicant and their contractors:

- All seed or plant material used for revegetation or site stabilization should be approved by the TNF YRRD Forest Botanist prior to application.
- The applicant shall implement all recommendations contained in the Weed Risk Assessment prepared by the Forest Service, which may include vehicle washing requirements, seeding requirements, monitoring requirements, or other measures determined effective for weed control on the project site.
- The erosion control and revegetation plan shall be reviewed and approved by Forest Service personnel prior to site disturbance. The plan shall require that all erosion control materials and aggregate used on the site are of certified “weed-free” materials. To maintain soil microbe health, the plan shall require that all topsoil stockpiles that will remain in place for over one month shall be promptly seeded with an approved seed mix.
- All equipment brought onsite shall be kept free of non-native invasive species before moving into the project area. This may be accomplished by thoroughly washing vehicles prior to transporting them to the site to ensure that the equipment is free of soil, seeds, vegetative material, or other debris that could contain or hold seeds of non-native invasive species.

Mitigation Measure BIO.2-Special-Status Wildlife

1) *Nesting raptors*: Trees within the Study Area provide suitable nesting habitat for raptors known from the region, including northern goshawk and spotted owl. Take of any active raptor nest is prohibited under California Department of Fish and Game Code Section 3503.5. To avoid take of any active raptor nest, tree removal within the Study Area should be conducted between September 1 and May 1, which is outside of the typical raptor breeding season.

For any site disturbance activities, including tree removal, initiated during the typical breeding season (generally May 1 to through August 31) a pre-construction nesting survey shall be conducted by a qualified biologist within 30 days prior to project related activities. Additional nesting surveys shall be conducted prior to initiation of activities in areas that have remained inactive for periods of 30 days or more during the nesting season. The biologist's report shall be provided to the County and the USFS for approval prior to commencing disturbance activities. If any active raptor nests are found on or immediately adjacent to the proposed area of disturbance, the Sierra County Planning and Building Department and the TNF YRRD District Biologist shall be notified and consultation shall be initiated with CDFW to determine appropriate avoidance measures and mitigation responsibilities. Mitigation measures typically include limited operating periods and /or a 100 to 500-foot buffer from the nest and nest monitoring until it is determined to be inactive.

2) *Yellow warbler*: Habitat in the Study Area is considered marginal for this species. However, yellow warbler could nest in the shrubby forest understory or riparian shrubs in the Study Area. To avoid impacts to this and other nesting birds, vegetation disturbance should be limited to the minimum required and should be conducted between September 1 and May 1, which corresponds to the non-nesting season. If vegetation removal must occur during the breeding season, CDFW shall be contacted to determine appropriate measures to ensure impacts to nesting birds are minimized. Measures could include a survey for active nests and impact minimization or avoidance measures if nests are discovered. Evidence of CDFW consultation and implementation of recommended mitigation shall be provided to the Sierra County Planning Department and USFS within 30 days of beginning vegetation removal during the nesting season.

3) *General Nesting and Denning Habitat* (mammals and birds): To minimize impacts to habitat for cavity-nesting species, large-diameter (>24 inches dbh) standing snags should be left in place unless they represent a safety hazard. Large-diameter downed woody debris, including cut logs and fallen trees, shall be retained onsite to the extent feasible, or relocated onsite if they must be moved. All proposed tree removal, including removal of standing snags, shall be reviewed and approved by the USFS.

4) *Bats*: Prior to disturbance inside mine adits, a qualified biologist shall be retained to assess the suitability of the mine adits for roosting and determine whether adits are active roost sites. The assessment could include nighttime surveys of adit openings or other appropriate means as determined necessary by the qualified biologist to determine use by bats. If it is determined that bats are using the mine adits, CDFW and the USFS District Biologist shall be notified and consulted regarding appropriate measures and protocol for excluding bats from the adit prior to further disturbance. Measures could include installing one-way exclusionary devices or measures to provide for continued use of adits by bats while restricting entrance by humans. Depending on the listing status of bats present, an Incidental Take Permit could be required from CDFW under Section 2081 of the Fish and Game Code to carry out adit closure or reclamation activities.

Mitigation Measure BIO.3 - Riparian Habitat

For any impacts to the bed, bank, or channel of perennial and intermittent creeks or other water bodies subject to regulation under Section 1602 of the Fish and Game Code, the project applicant must apply for and obtain a Streambed Alteration Agreement from the CDFW. The area regulated by CDFW is the stream zone, which is defined as the area from top-of-bank to top-of-bank or the outside edge of the riparian canopy, whichever is widest, and includes ephemeral streams and stream headwater areas, as determined by CDFW. A Streambed Alteration Agreement from CDFW will be required prior to activities that will affect these features. The Streambed Alteration Agreement requires that all streams and headwater features be restored to either pre-project conditions, or conditions of similar nearby undisturbed or restored streams, whichever is determined to provide the most benefit to wildlife resources. All mitigation measures for impacts to waters of the state must be implemented in accordance with the terms and conditions of the Streambed Alteration Agreement.

Mitigation Measures BIO.4 - Wetlands

A formal wetland delineation shall be prepared and verified by the U.S. Army Corps of Engineers prior to disturbance resulting from reclamation work of any potential wetland areas, as determined by the USFS or the County. Modification of jurisdictional hydrologic features on the site, including the intermittent drainage that bisects the Study Area on the Annex claim, settling/storage basins on the Eagle Bird and Pedro claims, and the seep or spring that daylight at the Eagle Bird No. 2 Adit shall be avoided unless appropriate permits/authorizations are obtained.

The applicant shall obtain a permit from the Corps pursuant to Section 404 of the federal Clean Water Act for any reclamation activities that affect hydrology in waters shown on a verified delineation map. As required to obtain the 404 permit, the applicant shall obtain a water quality certification from the RWQCB pursuant to Section 401 of the federal Clean Water Act. The applicant shall comply with all terms and conditions of the permits issued by the Corps and the RWQCB, which require mitigation for all proposed impacts to waters of the U.S. and waters of the State of California at a minimum 1:1 ratio of impacts to compensation. These measures typically include one or more of the following: onsite creation, offsite creation, purchase of credits in a mitigation bank, or payments to an in-lieu fund. The precise mitigation and monitoring requirements would depend on the extent of impacts and the types of jurisdictional waters affected.

V. CULTURAL RESOURCES –

Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- d) Disturb any human remains, including those interred outside of formal cemeteries?

Setting

In June 2013, Peak & Associates completed a *Cultural Resource Inventory and Determination of Eligibility for the National Register of Historic Places of Forest Service Site 05175300460/CA-SIE-1776H within the Eagle Bird Mine Claim Group*. A copy of this report can be reviewed upon request from the Sierra County Department of Planning and Building Inspection. The information in this section relies on the findings of the Peak & Associates study.

Portions of two archaeological sites are included in the Area of Potential Effect (APE): the Eagle Bird Mine, FS Site 05175300906/CA0SIE0201H (located within 2 claims, Pedro and Patrick) and the likely location of the former Elcy mine, FS Site 05175300460/CA-SIE-1776H (located within the Elcy and Annex claims). The Eagle Bird Mine was previously deemed ineligible for inclusion in the National Register of Historic Places (National Register). The Elcy mine site was found by the Forest Service to be ineligible for historic designation and the State Historic Preservation Office concurred with the finding of ineligibility.

In 1986, TNF inspected portions of the project APE during a reconnaissance effort associated with the Quartz Point Compartment Sale. In 2009, William Slater, USFS Archaeologist, conducted archival research and filed a cultural resources report with TNF for the Eagle Bird Mine site. Additional research was conducted by Peak & Associates at the California Room of the California State Library, the Bureau of Land Management, the California Mines and Geology Library, and using the website Ancestry.com.

In addition to archival research, in October 2012 Neal Neuenschwander of Peak & Associates conducted an updated field study covering the APE. Originally, the former Elcy mine site contained a standing cabin, storage structure, outhouse, adit, tailing pipe, 5-stamp mill, and a trash scatter. By 1997, the site had been excavated by looters, removing the structural remnants and most artifacts. However, various items were still found including: 200 tin cans, 20 to 30 fragments of glass, 10 fragments of ceramics, a stove part, an enamel water pan, and a leather fragment from a boot, with some dating back as far as the late 1800s. The 2012 field study revealed an additional adit and large pit that were not previously recorded. No new features were found on the Eagle Bird Mine site.

Prior to 2013, the Elcy mine site (FS Site 05175300460) had not been evaluated for historic designation. The Peak & Associates report found that the Elcy Mine site does not meet criteria for inclusion in either the National Register or the California Register of Historical Resources (California Register); no record of major production is shown from this mine, it is not associated with any significant individuals, it includes adits that have been recently altered and are not distinctive, and no original buildings are present.

Due to the ineligibility of the placement of these sites on the National Register of Historic Places or the California Register, the Peak & Associates report found that the proposed project will have no effect on historic properties.

Impacts

- a. Previous studies and an updated field reconnaissance identified no significant historical resources within the proposed disturbance area, though several historic-era features onsite were determined to be ineligible for federal or State registers of historical resources. The proposed project would result in a less than significant impact associated with changes in the significance of a historical resource, as defined in §15064.5 of the CEQA Guidelines.
- b. Portions of two archaeological sites are included in the APE, however, the study conducted by Peak & Associates and the Forest Service determined that the sites do not meet criteria of historical significance to be included on the National Register or California Register. The site contains no cultural resources that are considered of local significance, included on any local register of historic places, or considered by the Lead Agency, Sierra County, to be of special historic significance. The proposed reclamation project would result in less than significant impacts to historic resources.

No prehistoric resources or evidence of prehistoric use have been identified by any surveys conducted on the site. However, excavation and other soil disturbance required to carry out reclamation could unearth subsurface artifacts / Native American human remains. Should Native American human remains be discovered on the project site during project implementation, the project proponent will be required to comply with all applicable guidelines of California Health and Safety Code Section 7050.5 and Public Resources Code Sections 5097.94, 5097.98 and 5097.99, which require specific mitigation measures be taken in the event of discovery of human remains or evidence of burials. Implementation of *Mitigation Measure CUL.1*, which requires work to stop and further evaluation to be carried out in the event that cultural resources are discovered during construction, would further ensure that impacts from inadvertent discovery of subsurface artifacts or Native American human remains would be less than significant.

- c. The project site contains no known paleontological resources or unique geologic features. However, subsurface excavation could unearth paleontological resources that require further investigation. Implementation of *Mitigation Measure CUL.1*, which requires work to stop and further evaluation to be carried out in the event that paleontological resources or other unusual material are discovered during work onsite, would further ensure that impacts from inadvertent discovery of subsurface paleontological resources would be less than significant.
- d. The possibility exists for discovery of subsurface artifacts / Native American human remains. Should Native American human remains be discovered on the project site during project implementation, the project proponent will be required to comply with all applicable guidelines of California Health and Safety Code Section 7050.5 and Public Resources Code Sections 5097.94, 5097.98 and 5097.99, which require specific mitigation measures be taken in the event of discovery of human remains or evidence of burials. Implementation of *Mitigation Measure CUL.1* would further ensure that impacts related to inadvertent discovery of subsurface artifacts or Native American human remains would be less than significant.

Mitigation Measures

Mitigation Measure CUL.1: If artifacts, exotic rock or unusual amounts of shell or bone or other potential buried archaeological or paleontological resources or human remains are encountered during earth-disturbance associated with the proposed project, the County shall be immediately notified and all soil-disturbing work shall be halted until a qualified archaeologist or paleontologist completes a significance evaluation. If the cultural resources are discovered, the evaluation shall be carried out pursuant to Section 106 of the National Historic Preservation Act . The significance evaluation shall include specific measures for the appropriate management of the resources uncovered and shall be submitted to Sierra County. No further soil-disturbing work shall be conducted within 100 feet of any resource discovery until an appropriate management plan is developed by a qualified archaeologist or paleontologist for the protection of any significant resources identified. The significance evaluation shall be carried out in consultation with appropriate agencies, including the State Historic Preservation Office the Forest Service, and Sierra County, as necessary.

VI. GEOLOGY AND SOILS –

Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

- i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.
- ii) Strong seismic ground shaking?
- iii) Seismic-related ground failure, including liquefaction?
- iv) Landslides?

b) Result in substantial soil erosion or the loss of topsoil?

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

VI. GEOLOGY AND SOILS –

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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Would the project:

the disposal of wastewater?

Setting

The project area lies within the Sierra Nevada physiographic province, in the Sierra Nevada mountain range. The project site is located approximately 4.6 air miles east-southeast from the unincorporated community of Downieville. Site elevations range from approximately 5,150 feet to 6,470 feet. The site is located on the northwest facing slope of Granite Mountain (elevation 6,482 feet).

The project site has been disturbed by past mining operations and access roads. The geology map for the area shows that the majority of the site is located within the Paleozoic Bowman Lake Batholith (granitic) and the western edge of the site appears to lie within the Paleozoic Medasedimentary Shoo Fly Complex (shale/slate). As discussed in the custom soil report included as Attachment C of the Reclamation Plan, there are four soil types present at the site. These soils are listed below, in order from most to least abundant along with distinguishing properties and qualities:

- Chaix variant-Rock outcrop-Cryumbrepts (CKF), well drained, 30 to 50 percent slopes, coarse-loamy, mixed, frigid Dystric Xerochrepts Physical parameters include a typical soil thickness of 22 to 24 inches that is generally 67 percent sand, 23 percent silt and 10 percent clay (sandy loam). Infiltration rate is moderate (0.2 – 0.8 in/hr) and saturated hydraulic conductivity (Ksat) ranges from 1.98 to 5.95 in/hr (maximum 2.8×10^{-3} cm/sec).
- Hurlbut-Deadwood-Rock outcrop complex (HUG), somewhat excessively drained, 30 to 75 percent slopes, fine-loamy, mixed, mesic Dystric Xerochrepts
- Deadwood-Rock outcrop-Hurlbut complex (DEG), somewhat excessively drained, 30 to 70 percent slopes, loamy-skeletal, mixed, mesic Dystric Lithic Xerochrepts
- Tahoma variant-Hotaw variant-Cryumbrepts (MUE), well drained, 2 to 30 percent slopes, Fine-loamy, mixed, frigid Ultic Haploxeralfs

The site soils are shallow, poorly developed in places, and much of the site is not covered by soils. Infiltration rates are typically high where fractured and/or decomposing bedrock is present. Where unfractured bedrock is present, infiltration is minimal and runoff can occur. The site soils are shown in Figure 6 of the *Plan of Operations, Reclamation Plan, and Financial Assurance Cost Estimate* (Appendix A – Figures); complete document downloadable from the County’s website at <http://www.sierracounty.ca.gov/index.aspx?nid=251>). The custom soil report is included as Attachment C of that Plan. There are no Alquist-Priolo mapped earthquake fault zones within the project area (CDC, 2014).

Impacts

- a. The proposed project would reclaim land disturbed by mining and remove and decommission old mining features and associated structures. While the reclamation site would be open to the public, it is in a remote part of the National Forest and few

people are expected to visit the site aside from those involved in the reclamation project itself. The proposed project would result in no structures and would not increase the risk to structures or humans associated with seismic events. No Alquist-Priolo mapped earthquake fault zones are located in the project area. Risks associated with seismic events such as rupture of a fault, strong ground shaking, and ground failure would be less than significant as a result of the proposed project.

Grading for reclamation would result in maximum slopes of 2:1 and a maximum height of 50 feet. Tailings disposal piles will be located in mildly sloped areas of the site and would not be placed at an inclination greater than 3:1. Waste rock slopes would be a maximum of 2:1. While the project site is located in a remote area of the Tahoe National Forest and a potential threat to public safety or adjacent property is considered low, improper placement of waste material could result in slope instability and increase the risk of landslide or result in substantial erosion. Mitigation Measure GEO-1 requires that an engineering analysis of slope stability be conducted by a qualified geotechnical engineer and that recommendations contained in the engineering analysis report be implemented for all high slope areas including final cut slopes and tailings and waste disposal piles. Mitigation Measure GEO-1 further requires that the geotechnical engineer review all final proposed slopes to ensure that they conform to the surrounding topography and natural landform and that recommendations of the geotechnical engineer be implemented to ensure that final grading blends with the natural landscape. With implementation of Mitigation Measure GEO-1, risks associated with landslide would be less than significant.

- b. During and upon completion of mining and processing activities, the re-disturbed land, any newly disturbed lands, and old mining features that are still open to public access would be reclaimed. Reclamation activities would be required to be in compliance with the Industrial Activities Stormwater General Permit, which will include implementation of measures included in a SWPPP that includes water quality BMPs for site stormwater discharges. Reclamation would occur in accordance with the SMARA Reclamation Plan and the RWQCB would issue Waste Discharge Requirements (WDRs) which incorporate the provisions of the approved Plan of Operations and Reclamation Plan (see SMARA, Public Resources Code, Section 2770, et seq.), prescribe additional conditions as necessary to prevent water quality degradation, and ensure that there will be no significant increase in the concentration of pollutants in ground or surface water (see Title 27 California Code of Regulations Section 22510(c) Reclamation). A Monitoring and Reporting Program (MRP) would be required to monitor compliance with WDRs.

Mining activities at the Eagle Bird Mine would occur largely on previously disturbed land. The natural surface soil and weathered surface material (subsoil) that exist would be stripped prior to re-disturbance and placed in a soil stockpile on the Pedro Claim. Since much of the existing graded areas and mine waste dumps support natural vegetation, soil that would be used for final cover of re-disturbed areas and waste rock and tailing piles during reclamation would be a mixture of stockpiled soil/subsoil, weathered rock excavated from grading operations, inert fines excavated from the settling ponds produced during operations, and chipped plant material from initial grading and subsequent construction of Expansion Area No. 2. Stockpiled soil would be seeded with a native grass mix and would not be disturbed until use in

revegetation as part of reclamation. Test plots would be constructed onsite and managed simultaneously during active mining to determine the most appropriate planting procedures to be followed to ensure successful implementation of the revegetation plan proposed as part of the mine reclamation.

As previously mentioned, grading for mine and milling operations would be done in accordance with the grading plan approved by the County and in such a way as to minimize slopes that could increase erosion. The final cover would include a high percentage of coarser material mixed with fines to inhibit erosion. Grading would be planned to direct runoff from sloped areas into drainage features and into the existing natural drainages and forest floor. The Forest Service system roads in the claim block area and site access would be maintained to a stable surface and protected against erosion by maintaining water bars and culverts per the terms of the Commercial User Permit obtained from the Forest Service. Mining claim roads would be reclaimed by installing water bars, as necessary, to control road erosion and then lightly ripping the compacted surfaces between water bars. The ripped areas would also help control erosion. Implementation of the approved reclamation plan, and compliance with the approved WDRs and the MRP along with the terms of the Industrial Activities Stormwater General Permit would ensure that impacts from erosion and sedimentation remain less than significant.

- c. The proposed project would close several mine adits as part of reclamation activities on the site. Closure of these adits would include partially filling them with mine waste material and plugging them with concrete bulkheads. Improperly closed or plugged mine adits could represent a hazard to the public as a result of collapse or because they represent an attractive nuisance to people who might explore the former mine site. Mitigation Measure GEO-2 requires that, consistent with CCR 3502(b)(2), mine adits be closed in accordance with the recommendations and under the supervision of a qualified geotechnical engineer or other qualified professional approved by the County. With implementation of this mitigation measures, risks associated with mine adit collapse or instability resulting from reclamation activities would be less than significant.
- d. Please see VI. above. The proposed project is reclamation of a disturbed mining site and does not include any structures or other components that would result in any risks as a result of expansive soils. Grading and earthwork would be carried out consistent with the recommendations of a geotechnical engineer, as required by Mitigation Measure GEO-1. Risks associated with expansive soils would be less than significant.
- e. The proposed reclamation project would eliminate and abandon septic tanks onsite in compliance with the Sierra County Department of Environmental Health. The reclamation project includes no improvements that would generate wastewater, and would have no impacts associated with onsite wastewater disposal.

Mitigation Measures

Mitigation Measure GEO-1: The proposed final grading shall be reviewed by a qualified geotechnical engineer prior to initiation of reclamation activities onsite that would create steep slopes. The determination of which elements of the proposed reclamation plan would be subject to this measure would be subject to County discretion and would apply primarily to slopes proposed

on the Eagle Bird Claim site. The geotechnical engineer shall provide a slope stability analysis report to the County that provides recommendations for final grading and slopes based on an analysis of the soils and waste materials present onsite at the time reclamation activities commence. The report shall also include a review of final grades in relation to the surrounding topography and recommendations to ensure compliance with CCR 3704(f), which requires that final cutslopes and grading conform to the natural surrounding topography, and CCR 3502(b)(3), which requires that a stability analysis be conducted for final slopes that approach a critical gradient. Recommendations provided by the slope stability analysis shall be implemented during final site grading. The costs associated with the geotechnical engineering report or slope stability analysis shall be borne by the mine operator.

Mitigation Measure GEO-2: Mine adits shall be closed in accordance with the recommendations and under the supervision of a qualified geotechnical engineer or other qualified professional approved by the County and the USFS. A mine adit closure report shall be prepared by the qualified professional and submitted to the County and the USFS following the closure of each mine adit. The report shall include the recommendations of the geotechnical engineer or qualified professional and shall provide verification that the recommendations were carried out during mine adit closure. The costs associated with the report shall be borne by the mine operator.

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

Setting

Climate change, which involves significant changes in global climate patterns, has been associated with an increase in the average temperature of the atmosphere near the Earth’s surface, or global warming. This warming has been attributed to an accumulation of greenhouse gases (GHGs) in the atmosphere. These GHGs trap heat in the atmosphere, which in turn heats the surface of the Earth. GHGs include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride, HFC-23 (fluoroform), HFC-134a (1, 1, 1, 2-tetrafluoroethane), and HFC-152a (difluoroethane). While CO₂ is the most prevalent GHG, other GHGs have a higher “global warming potential” than CO₂. To account for these differences, most GHG analyses convert all GHG emissions to CO₂ equivalents (CO₂e). The conversion process reflects the relative global warming potential of each individual GHG.

While the greenhouse effect is a naturally occurring process that aids in maintaining the Earth’s climate, human activities, such as burning fossil fuels and clearing forests, generate additional GHG emissions which contribute to the greenhouse effect and result in increased average global temperatures. Further, GHGs may have long atmospheric lifetimes (for example, CO₂ may remain

in the atmosphere for decades or even centuries) ensuring that atmospheric concentrations of GHGs will remain elevated for decades. Increasing GHG concentrations in the atmosphere are primarily a result of emissions from the burning of fossil fuels, gas flaring, cement production, and land use changes. In California, the transportation sector is the largest emitter of GHGs, followed by electricity generation (California Energy Commission, 2006). The California Air Resource Board's (CARB) Emissions Inventory Report found the total statewide GHG emissions in 2009 were equivalent to 457 million tons of CO₂ (CARB, 2012). Compared with the emissions in 1990, this is a 5.5 percent increase.

Data indicate that global surface temperatures have increased 0.8°C (1.4°F) in the past century, and 0.6°C (1.1°F) in the past three decades. Temperatures are expected to continue to increase as a result of increasing concentrations of GHGs. The increased temperatures are anticipated to lead to modifications in the timing, amount, and form (rain vs. snow) of precipitation; changes in the timing and amount of runoff; deterioration of water quality; and elevated sea levels. In turn, these changes could be associated with increased flooding and other weather-related events, increased salinity levels in coastal groundwater basins, changes in water supply availability, changes in agricultural activities, changes in the range and diversity of wildlife and vegetation, and changes in conditions related to wildfires.

In 2006, the State of California enacted Assembly Bill (AB) 32, the Global Warming Solutions Act. AB 32 requires reducing statewide GHG emissions to 1990 levels by 2020. Meeting the AB 32 reduction targets will require an approximately 30 percent reduction compared with a "business as usual" scenario. The state's plan for meeting these reduction targets is outlined in the CARB Climate Change Scoping Plan (CARB, 2008).

CARB's Scoping Plan fact sheet states "This plan calls for an ambitious but achievable reduction in California's carbon footprint – toward a clean energy future. Reducing greenhouse gas emissions to 1990 levels means cutting approximately 30% from business-as-usual emissions levels projected for 2020, or about 15% from today's levels."

The strategies in the AB 32 Scoping Plan most applicable to the proposed project are goals to increase the energy efficiency of buildings and appliances and to reduce emissions associated with transportation – both by encouraging use of alternative forms of transportation and by increasing vehicle fuel efficiency.

Impacts

a. and b. *GHG Emissions*

Sierra County does not have established GHG emissions significance thresholds and does not employ a specific strategy for mitigation of GHG emissions. The project area is located within the jurisdiction of the Northern Sierra Air Quality Management District (NSAQMD). NSAQMD has not established any significance thresholds and has no published guidance for evaluating the significance of GHG emissions.

In the absence of local or regional GHG thresholds and GHG reduction plans, the California Air Pollution Control Officer's Association (CAPCOA) White Paper on CEQA and Climate Change provides analysis of potential GHG thresholds that could be applied to the proposed project. The lowest potential threshold presented in the

White Paper is 900 metric tons of CO2e annually (MTCO2e).

As discussed in the White Paper, a project consisting of 50 single-family residences or 35,000 square feet of office space would generate approximately 900 MTCO2e. The proposed project would involve limited operation of construction equipment, such as excavators and loaders, and on-highway trucks used to haul material to a landfill. The use of this construction equipment and on-highway trucks would generate GHG emissions associated with vehicle exhaust. The amount of activity at each individual claim site is very limited, ranging between four and 48 total hours of equipment operation and truck trips combined. Several claim sites could be subject to reclamation activities within a single year. It is expected that equipment and truck operation could range as high as 120 hours in a year, as given in Table 4, below. In addition to the equipment 120 hours of vehicle use identified in Table 4, the modeling assumed an average of 16.7 on-highway material hauling trips per day. Modeling was completed using the CalEEMod program to estimate the GHG emissions associated with annual operation of equipment and trucks. Assuming the following equipment and truck use, less than 6 MTCO2e would be generated. As this is substantially less than 900 MTCO2e, the project would have a less than significant impact related to GHG emissions and climate change or conflict with any plan for GHG reduction, and no mitigation measures are necessary.

Table 4 – Equipment Use Hours

Equipment Type	Hours operated per day	Total hours (assuming 3 days use)
Excavator	8	24
Concrete/Industrial saws	6	18
Rubber tired dozer	4	12
2 Loaders	14	42
Grader	8	24
<i>Total</i>	<i>40</i>	<i>120 hours and 50 haul trips</i>

Mitigation Measures

No mitigation measures are necessary.

VIII. HAZARDS AND HAZARDOUS MATERIALS –

Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

VIII. HAZARDS AND HAZARDOUS MATERIALS –

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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Would the project:

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| and accident conditions involving the release of hazardous materials into the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Setting

Hazardous materials stored and used in the vicinity of the Study Area would include common materials used in residential, forestry, mining, and recreational activities, such as paints, cleaning solvents, bonding agents, and small quantity petroleum fuels and lubricants. The existing four-bedroom residence on the Eagle Bird Claim site is of simple, wood-framed construction and the other building is a metal warehouse. Sierra County requires a demolition permit for prior to removal of any existing structures, as well as an inventory and inspection of any waste being hauled to a County landfill or transfer station. A search of the State Geotracker and Envirostor databases determined that no hazardous materials cleanup sites are recorded from the Study Area or nearby surroundings (Department of Toxic Substances Control, 2014; State Water Resources Control Board, 2014). An inquiry with the Sierra County Department of Environmental Health returned no records for the Study Area (Sierra County 2014). No school exists within 0.25 mile of the project site and the site is not near any private airstrip or within the boundaries of an airport land use plan. In the event of a hazardous materials release, the Sierra County Environmental Health Department would respond and contact the State Department of Toxic Substances Control

and a qualified private hazardous materials contractor would provide evaluation and clean up services to the County. While the project is a federal responsibility area, CalFire places portions of the project site within a Very High Fire Hazard Severity Zone. Fire protection and response to wildland fires in the project area is provided by the Forest Service.

Impacts

- a. The proposed mine reclamation activities associated with the project would be conducted to remove the existing structures and remnants on the Eagle Bird Claim site, stabilize soils onsite, contour grade to better match surrounding topography, and revegetate the site following mining disturbance. The reclamation portion of the project would result in no routine transport, use, or disposal of hazardous materials other than common materials used for grading and revegetation and related to equipment use and short-term residential use of the site facilities during reclamation. This would include small quantity petroleum products for fuel and lubrication and common residential products such as cleaning and maintenance supplies. Demolition of the existing structures onsite would require short-term transport of building materials. Please refer to the discussion, below, regarding potential hazardous materials in the existing structures onsite. No herbicides would be used to eradicate noxious weeds during site revegetation. By complying with storage and use guidelines included on the packaging and Material Data Safety Sheets for such chemicals, construction of the proposed project would not create significant hazards to the public from the use of these materials. No impacts are expected to result from routine use, transport, disposal, or release of hazardous materials.
- b. The four-bedroom house, metal shop building, and building remnants on the Eagle Bird Claim site would be demolished as part of reclamation activities. The existing structures could contain hazardous materials including asbestos, lead or other universal hazardous waste commonly found in older structures. Demolition could represent an exposure risk to workers or others onsite. Mitigation Measure HAZ-1 requires the existing buildings to be inspected for asbestos and lead and other universal hazardous wastes prior to building demolition and for any such materials identified to be handled and disposed of in accordance with State and federal regulations, in particular the National Emissions Standards for Hazardous Air Pollutants (NESHAP) NSAQMD regulations, Cal-OSHA, and the California Code of Regulations, Title 22, Division 4.5 related to hazardous waste materials.

As discussed in Section VI. Geology and Soils, onsite activities would be required to comply with WDRs implemented through a SWPPP. The SWPPP would include measures for spill prevention and response for hazardous materials stored onsite. It is noted that fuels and other hazardous materials would be stored in approved containers and within a protected containment area to ensure that all spills are contained and appropriately cleaned up.

Implementation of Mitigation Measure HAZ-1 and compliance with the approved WDRs and implementation of the measures included in the SWPPP would prevent impacts associated with accidental release of hazardous materials used during reclamation and would ensure that impacts associated with release of hazardous materials by any reasonably foreseeable upset or accidents would be less than significant.

- c. No schools are located within 0.25 mile of the project site. No impacts would result from hazardous materials in close proximity to a school.
- d. The project site is not included on lists of regulated hazardous materials facilities or sites of known contamination or spills maintained by the State Water Resources Control Board's GeoTracker, the Department of Toxic Substance Control's Envirostor database, or the Sierra County Department of Environmental Health. No open cases for hazardous materials contamination or regulated facilities are within 0.25 mile of the project site. No impacts would result from disturbance within a listed hazardous materials site.
- e. - f. The site is not located within any airport land use plan and would result in no impact related to proximity to a public or private airport.
- g. Access for emergency vehicles would be maintained at all times throughout construction and no road closures would be necessary. Therefore, the proposed project would result in no impact associated with impairing implementation of emergency response and evacuation plans.
- h. The proposed project involves mine reclamation activities to stabilize, contour grade to better match surrounding topography, and to revegetate the site following mining disturbance. Onsite activities including grading, vehicle operation, and residential use represent potential fire ignition sources. Reclamation activities would be required to comply with and implement fire prevention measures specified in the use permit obtained from the Forest Service and as terms and conditions of the approved PoO and are therefore not expected to substantially increase the risk of wildfire. These measures typically require that fire prevention practices be followed and that fire suppression equipment, such as extinguishers, shovels, and a water source, is maintained onsite at all times and that project activities be carried out in compliance with federal and state fire safe codes and regulations contained in 36 CFR Section 228.11 and the Public Resources Code. The reclamation of the site would result in less than significant impacts related to exposing people or structures to a significant risk of loss, injury, or death involving wildland fires.

Mitigation Measures

Mitigation Measure HAZ-1: Prior to demolition of existing buildings on the Eagle Bird Claim site, the applicant shall retain a qualified environmental specialist (e.g., a Registered Environmental Assessor) to inspect the buildings for hazardous substances. The specialist shall perform an investigation for asbestos, polychlorinated biphenyls, mercury, lead, or other hazardous materials and shall provide a report disclosing the findings of the investigation to the County and the USFS. If contaminants are discovered at levels that would require special handling, these materials shall be managed as required by law, consistent with recommendations of the report, and according to federal and state regulations and guidelines, including those of the Northern Sierra Air Quality Management District, Sierra County Environmental Health Department, the California Division of Occupational Safety and Health Administration, and the California Department of Toxic Substances Control. Should asbestos-containing material be identified in either structure, demolition of that structure shall comply with the National Emission Standard for Hazardous Air Pollutants for Asbestos.

IX. HYDROLOGY AND WATER QUALITY –

Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

Runoff from the claims complex generally follows slopes onsite to the northwest and down to forested areas along the North Yuba River canyon via or runs and runs into one of three small, perennial drainages within the claims complex. From north to south these perennial streams include an unnamed tributary to the North Yuba River, Shannon Ravine, and Carney Creek. None

of the perennial drainages is within the boundaries of the proposed reclamation area. Shannon Ravine and Carney Creek flow west into Jim Crowe Creek, which delivers flows north into the North Yuba River. At its nearest point, the North Yuba River is approximately 1.75 miles north of the site at an elevation of ±3,200 feet, about 2,000 feet lower than the Study Area. The Study Area is within the Upper Yuba watershed (HUC 18020125). The FEMA Flood Insurance Rate Map (panel #06091C0361C) for the site indicates that the site is outside of the 100-year floodplain.

The only defined drainage onsite is a small, intermittent drainage incised through historical mine tailings material stockpiled just east of the main adit (No. 3 Adit) entrance on the Annex claim site. Within the Study Area this drainage supports sparsely developed riparian vegetation, mostly in the main channel; almost no vegetation grows on the incised banks. Upstream, this drainage runs west of Adit No. 2 on the Annex claim and bisects the abandoned access cut to this adit. During the October and November field visits for the biological resources study, a very low flow of surface water (<1 gpm) was present in this drainage immediately east and upstream of the No. 3 Adit entrance pad, but the channel downstream and to the south was dry, indicating subterranean flow during drier months. Surface water in this drainage is delivered offsite to Carney Creek. No other defined drainages occur within the Study Area.

A seep or spring within the No. 2 Adit on the Eagle Bird mine site drains a low flow of water out of the adit entrance (Figure 3 – Site Photos). The water from this seep flows unconfined over the compacted surface of the graded pad area and off of the access roadway, where it is directed into a small open trough that is connected to pipes that direct water toward the Pedro claim site. This flow of water supports sparse hydrophytic vegetation (*Juncus* sp.) in places where water collects in shallow puddles on the dirt road surface. The pipes to the Pedro claim are broken several feet below the trough and water spills to open forest on the slope below the access road.

Other hydrologic features include two artificially-constructed holding ponds on the Pedro Claim and a constructed holding pond south of the small cabin on the Eagle Bird claim site (Appendix A - Figure 7). The berm on the west side of the pond on the Eagle Bird claim site has failed, but a depression remains. During site visits in October and November, each of the ponds in the Study Area held little to no water. The three ponds have no connection with any natural, defined waterway. Review of aerial photographs shows that these ponds impound some water following rain events and during snowmelt.

Impacts

- a. A Mine Waste Characterization Report was submitted by the applicant on February 2, 2012 and was accepted by the RWQCB later that month. Title 27 CCR Section 22480 characterizes mine waste as Group A, B or C based on an assessment of the potential risk to water quality, with Group C being of lowest risk (all discharges from this waste would be in compliance with the applicable water quality control plan. The proposed mining project would process only Group C materials onsite. If Group B materials are encountered they would be removed to an offsite facility and would not be encountered during reclamation activities and would pose no threat to water quality during reclamation activities
- . The reclamation plan would return the site to a natural, forested condition and would be required to comply with the terms and conditions of the Waste Discharge Requirements issued by the RWQCB, which would include measures to ensure that existing surface and groundwater quality is maintained. Grading requirements, erosion and sediment controls, and management of mine waste would be approved by

the RWQCB as part of the Waste Discharge Requirements. The terms and conditions of the Industrial Stormwater General Permit and Waste Discharge Requirements require quantitative monitoring, testing, and annual reporting on stormwater runoff quality and the effectiveness of BMPs and require that remedial action be taken in the event that stormwater does not comply with waste discharge requirements for the project. Site closure would not occur until the RWQCB determines that water quality meets standards and the site and mine wastes on the site no longer pose any threat to water quality, in compliance with Title 27, CCR Section 22510(h). Impacts associated with violation of water quality standards or waste discharge requirements would be less than significant.

- b-f. The proposed reclamation plan would return the site to a more natural forested condition and conform site topography to the existing surrounding landscape. The project would not alter the course of a stream or river, no residential development, and proposes no changes or structural impediments to onsite hydrology. The reclamation project would temporarily use surface water and possibly groundwater for irrigation to establish plantings and would cease use of water entirely once reclamation is complete. The project is not located in an area with a high concentration of groundwater wells or in the vicinity of an overdrawn aquifer. The temporary use of groundwater, if necessary, to establish plantings would not result in an overdrawn condition. The proposed project includes no components that would be expected to substantially deplete groundwater supplies or interfere with groundwater recharge. The project includes no addition of impervious surfaces that would increase runoff in the project area and would require no change in any existing stormwater facilities.

Construction activities associated with reclamation would be required to implement BMPs for erosion control and stormwater quality maintenance during project construction, as required. These would be implemented consistent with the approved reclamation plan, the Industrial Stormwater General Permit and the WDRs approved by the RWQCB. Measures could include watertight bulkheads at mine adit openings, mulching, revegetation, placement of straw wattles, sediment catch basins, or other measures determined appropriate and effective for anticipated site conditions by the RWQCB. The effectiveness of erosion control measures would be monitored in accordance with the permit, SWPPP, and Waste Discharge Requirements. With implementation of erosion control measures and BMPs required as terms and conditions of permits and Waste Discharge Requirements, impacts from erosion and sedimentation would be less than significant and no additional mitigation measures are necessary.

- g-i. The proposed reclamation plan would not place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map (FEMA, 2012). In addition, the project would not expose people or structures to risks associated with flooding. Therefore, impacts would be less than significant.
- j. The project site is physically removed from any large body of water and is not subject to inundation by seiche, tsunami, or mudflow. The project would have no impact associated with these hazardous conditions.

Mitigation Measures

No mitigation measures are necessary with implementation of required BMPs.

X. LAND USE AND PLANNING —	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The project area is within the Tahoe National Forest (TNF) in Sierra County, approximately 4.6 air miles east-southeast from the unincorporated community of Downieville and ±2 miles south of State Route (SR) 49, which runs along the north bank of the North Yuba River. The site is zoned General Forest and designated as Forest in the Sierra County General Plan. The project site is designated Timber and Range in the Tahoe National Forest’s Land and Resources Management Plan (LRMP) which allows for multiple uses including timber harvest, mining, livestock grazing, and recreation. The site is currently developed as an underground hard rock gold mine with associated surface facilities such as access roads, adits, tunnels, mining equipment and man-made structures onsite. It has been actively mined off and on since the 1880s; however, it has been mostly dormant since 1969.

Impacts

- a. – c. The proposed project would involve mine reclamation activities to return the site to a more natural condition. The project includes no components that would result in a physical division of an established community, conflict with the County’s General Plan, or that would conflict with other applicable land use policies and regulations. Project review by the Forest Service would ensure that the proposed reclamation project would comply with applicable elements of the LRMP as a condition of approval of the PoO required to carry out the project on National Forest land. The project area does not fall within the jurisdiction of any habitat conservation plan.

Mitigation Measures

No mitigation measures are necessary.

XI. MINERAL RESOURCES –

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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Would the project:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Setting

As noted in the Project Description above, the project site is currently developed as an underground hard rock gold mine with associated surface facilities such as access roads, adits, tunnels, mining equipment and man-made structures onsite. The site has been actively mined off and on since the 1880s; however, it has been mostly dormant since 1969. Underground workings associated with the claim sites are known to contain gold and other mineral resources.

Impacts

- a. – b. The proposed reclamation activities would be conducted to stabilize, contour grade to better match surrounding topography, and to revegetate the site after mining activities have ceased. The reclamation project would not result in the loss of availability of any further mineral resources on the site and would have no impact on access to or availability of any mineral resources.

Mitigation Measures

No mitigation measures are necessary.

XII. NOISE—

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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Would the project:

- | | | | | |
|---|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

XII. NOISE—

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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Would the project:

levels existing without the project?

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Setting

Sources of noise in the project vicinity include existing rural residential land uses, noise from vehicles on area roadways and noises generated by recreational and commercial use of National Forest lands in the project area. This includes noises associated with timber harvesting including noise generated by heavy equipment and saw operation.

Sierra County has no adopted noise ordinance, but the Noise Element of the General Plan does provide a basis for comprehensive local noise policies and includes noise level standards for development projects.

Impacts

- a. The proposed project would generate temporary noise associated with equipment removal, grading, and revegetation. Noise would be generated by workers, vehicles, and construction equipment, and would be anticipated to be intermittently elevated. While noise levels would be elevated, no blasting or pile-driving is anticipated as part of the proposed reclamation plan.

Noise generated by initial reclamation activities would be required to implement Mitigation measure NOISE-1, which requires reclamation activities to be conducted during daytime hours, when construction noise would result in the least disturbance to recreational users that could be in the area. With these time restrictions on hours of construction operations, impacts resulting from temporary construction noise and vibration would be less than significant.

- b. Substantial ground-borne vibration typically occurs as a result of blasting or pile-driving activities. No such activities would be necessary for the project reclamation activities and no sensitive uses, such as residential development, are in close proximity to the project site. Earthwork and revegetation associated with the proposed project would generate less than significant amounts of ground-borne vibration.
- c. Upon completion, the proposed reclamation project would generate no noise and would result in no change in traffic volumes in the project area. The proposed project would result in no impacts from a permanent increase in ambient noise levels in the

vicinity of the proposed project.

- d. Reclamation activities associated with the proposed project are expected to result in elevated ambient noise levels periodically during reclamation activities. Noise would be the result of operation of grading and construction equipment. However, reclamation activities generating noise would be temporary and would occur only during hours and days, as required by Mitigation Measure NOISE-1. Additionally, it is noted that timber operations that occur in the vicinity of the proposed project generate similar noise from operation of heavy equipment for road grading and hauling and operation of saws and other equipment. These noise impacts are within an area with no sensitive receptors and temporarily elevated noise levels do not result in significant impacts. Therefore, the proposed project would result in less than significant impacts associated with temporary and periodic increases in ambient noise levels in the project area.
- e. - f. The proposed project is not located within an airport land use plan or within two miles of any public airport or private airstrip.

Mitigation Measures

Mitigation Measure NOISE-1: The project applicant/contractor shall restrict noise generating reclamation activities to daytime hours of operation between 7 a.m. and 7 p.m.

XIII. POPULATION AND HOUSING –

Would the project:

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

Setting

The Study Area is located within the Tahoe National Forest. No residential uses other than that associated with approved mining activities or under a use permit from the Forest Service is allowable on the project site. Access to the Study Area is via existing Forest Service roads and mine access roads. None of these roads serves as access into developable areas. Existing housing structures on the Eagle Bird mine claim site are dilapidated and have intermittently been subject to

unauthorized use. Currently there is a caretaker living in the existing four-bedroom home on the Eagle Bird Claim site.

Impacts

- a. The proposed project would involve mine reclamation activities, including equipment removal and grading, revegetation, and monitoring and maintenance. The proposed project would result in no impacts related to inducing population growth.
- b. The existing caretaker’s residence would be demolished as part of the initial reclamation activities and this structure would be replaced by trailers to provide onsite lodging for a caretaker and workers. The caretaker’s existing residence could be demolished prior to trailers being placed onsite and thereby result in the temporary loss of one residential unit on the project site. The temporary loss of one residential unit used for onsite lodging for a caretaker would not require construction of new housing units elsewhere, as there is ample housing availability in the local area and temporary trailers will be provided to accommodate onsite workers and caretakers. Impacts associated with construction of new housing to accommodate people or housing displaced by the proposed project would be less than significant.

Mitigation Measures

No mitigation measures are necessary.

XIV. UTILITIES AND PUBLIC SERVICES –

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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Would the project:

- a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

Fire protection to the project area is provided by the Forest Service, police protection in the area is provided by the Sierra County Sheriff’s Department, and public schools in the area are operated by

the Sierra Plumas Joint Unified School District. The Tahoe National Forest and Plumas National Forest provide regional recreational and multi-use opportunities in the project area.

Impacts

- a. Reclamation activities would be temporary and would be required to comply with and implement fire prevention measures specified in the terms and conditions of the approved PoO obtained from the Forest Service and are therefore not expected to increase the demand for fire protection services or response on the project site. Typical fire safe measures include compliance with 36 CFR Section 228.11 and fire safe measures included in the Public Resources Code. Fire safe terms and conditions could include: access controls during periods of high fire danger, onsite provisions for fire suppression, prohibitions on open burning and other best practices to reduce fire risk. The proposed project would employ less than ten people temporarily and intermittently throughout implementation of the reclamation plan. While those working on the reclamation project would require housing and would use services, this increased demand would be minimal and temporary and would be accommodated by existing services and facilities. The proposed reclamation project would result in no additional residential development or substantial population growth and temporary construction activities would not substantially increase the demand for fire or police protection or response, school capacity, or public facilities or parks to the extent that any physical change in facilities would be required. The project would not result in population growth in the area that would substantially increase the demands for utilities and public services and result in significant impacts associated with the physical expansion of these facilities.

Mitigation Measures

No mitigation measures are necessary.

XV. RECREATION –

Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might, have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

No parks are within 0.25 mile of the project site. National Forest lands provide public recreational opportunities within and around the project site.

Impacts

- a. and b. The proposed reclamation project includes no residential or recreational development. While employees could reside in the surrounding communities during temporary construction work, project implementation would result in no increase in population that would require additional recreational facilities or generate a substantial increase in the demand for recreational facilities. The project would therefore have a less than significant impact associated with deterioration of recreational facilities and no impact associated with construction of new recreational facilities.

Mitigation Measures

No mitigation measures are necessary.

XVI. TRANSPORTATION/TRAFFIC –

Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The site is accessed from SR 49 near Downieville by taking Galloway Road to Henness Pass Road, to Forest Road 98, to Forest Route 19N19. Galloway Road is a steep, unpaved road outside of Downieville and is impassable by most vehicles during or after inclement weather. Alternately, Henness Pass Road and the site can be reached from SR 49 near Camptonville by following Ridge Road to Pliocene Ridge Road to Henness Pass Road. Ridge Road and Pliocene Ridge Road are both paved two-lane roads; Henness Pass Road is a paved two-lane road to its junction with Forest Road 98. Forest Road 98 and Forest Route 19N19 are small, dirt roads that may become impassable during winter months after snow or rain events. Other than SR 49, all roads accessing the site carry low traffic volumes. Vehicular access internal to mined areas is from onsite dirt or gravel-surfaced mining access roads. Access is limited to the Eagle Bird Claim site by a locked gate. The USFS typically requires mining or timber operators to maintain Forest Service roads as terms and conditions of approval of a use permit. This may include grading, snow removal, and erosion and dust control. The terms of the use permit provide also that the Forest Service may suspend use of the road during periods of extreme fire danger to reduce fire risk associated with use of the roads. There is an active timber operation, Black Jack THP #2-10-072-SIE(3), that is currently using Forest Route 19N19 for access and hauling.

Impacts

- a. - f. Traffic to the project site is expected to vary depending on whether processing of ore occurs onsite or offsite. According to the *Plan of Operations, Reclamation Plan, and Financial Assurance Cost Estimate*, if processing is conducted onsite, it is estimated that mining activities could result in up to 39 additional vehicle trips per week. If mining operations require offsite processing, total additional weekly vehicle trips could increase to between 46 and 62 per week. Closure of old mine openings on the Pedro No. 1, Pedro, Eagle Bird, and Annex claims that are not proposed for use in renewed mining operations would take place concurrently with mine development. All other reclamation grading and mine adit closures would take place as mining in each area is completed to facilitate phased reclamation during operations and for reclamation to occur concurrently with mine operations. It is estimated conservatively that concurrent reclamation activities could result in an average of approximately 16.7 on-highway materials hauling trips per day, as estimated to model air pollutant emissions for the proposed project.

While mining and reclamation would introduce additional traffic to small, rural roadways accessing the site, the roads currently receive minimal use from timber operators and recreational users accessing National Forest lands, and the temporary addition of up to 17 additional vehicle trips per day during intermittent reclamation activities, in addition to mining trip generation, would result in no impacts associated with an applicable plan, ordinance or policy with established roadway service standards, such as level of service. Use of the roadway for mining, reclamation, timber, and recreational uses would result in increased use of the road over the existing condition and could result in additional maintenance needs and safety concerns over the life of the reclamation project, as mining access roads are generally uncontrolled at intersections with Forest Service roads used by other commercial and recreational users. Mitigation Measure TRANS-1 requires the operator to attend an annual meeting with County officials to review traffic controls for the site and ensure coordination between users, as necessary. With implementation of Mitigation Measure TRANS-1 impacts

associated with hazardous roadway conditions would be less than significant.

No congestion management program or policies, plans, or programs regarding alternative transportation apply to the roadways that would be used to access the proposed project. The proposed project would result in no change in air traffic patterns.

The National Forest system roads in the claim block area and access to the area would be maintained to a stable surface and protected against erosion by maintaining water bars and culverts. Access through the site would be maintained at all times for emergency vehicles.

No impacts would result from effects of the proposed reclamation project on the function or safety of the transportation system or conflicts with traffic management or alternative transportation plans or programs in the project area.

Mitigation Measures

Mitigation Measure TRANS.1: Prior to beginning reclamation activities, and annually thereafter, the applicant shall meet with Sierra County officials to review planned traffic control measures, road maintenance activities, and anticipated level of use by other user groups. The County shall review and approve the plan prior to the start of annual reclamation activities and may require additional measures as necessary to ensure appropriate traffic management during reclamation activities. Measures that could be required include restrictions on use during certain times, coordination with other users, and traffic control measures (signage, direction of travel requirements, speed limits).

XVII. SERVICE SYSTEMS –

Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

XVII. SERVICE SYSTEMS –

Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The project site is not served by any public water or wastewater services provider. Proposed septic systems and potable water supplies within Sierra County, and decommissioning of wells and septic systems, are subject to review and permitting by the Sierra County Environmental Health Department. The Forest Service reviews proposed septic systems and wells on federal land as part of the PoO application and approval process.

Solid waste generated in Sierra County is currently collected by Sierra County at several transfer stations (and by a private contractor for waste disposal services) and deposited at the solid waste landfill located in Loyalton. According to CalRecycle, this solid waste landfill is permitted to operate with oversight by the Sierra County Health Department and currently has adequate capacity to provide for buildout under the General Plan. The estimated closure date of the Loyalton landfill is in the year 2016 (CalRecycle, 2014).

Impacts

- a. The proposed reclamation project would result in no change in wastewater services in the project area. Reclamation would proceed concurrently with mining activities and would utilize the existing onsite septic system and portable sanitary units. The septic system would be reviewed and approved for use by the Sierra County Department of Environmental Health and portable units would be serviced as necessary by a commercial vendor. Final reclamation includes abandoning the on-site septic system, which would be done in compliance with Sierra County Department of Environmental Health standards and as required by the Forest Service.

Per Title 27 CCR 22520, the proposed Reclamation Plan must address water quality or the RWQCB will require additional measures to prevent water quality degradation and ensure that water quality standards are met for any mining wastewater discharges. The reclamation plan is incorporated by reference in the waste discharge requirements approved by the RWQCB. The proposed reclamation project will not be deemed complete until the RWQCB determines that water quality measures included in the approved reclamation plan have been implemented, are effective, and that mining wastes no longer pose a threat to water quality. Therefore, with oversight by permitting agencies and implementation of the approved reclamation plan, impacts associated with non-compliance with wastewater treatment requirements of the RWQCB would be less than significant.

- b. – c. The proposed reclamation project would utilize the existing onsite septic system if it is approved by the County Environmental Health Department. If the existing septic system does not meet County standards portable sanitary units would be used and a new septic system may be constructed onsite. The new system would be constructed within the existing disturbed area and would be reclaimed along with the rest of the mining features onsite. Reclamation would decommission onsite water systems and wastewater disposal facilities in compliance with Sierra County Department of Environmental Health standards and the approved Reclamation Plan. Therefore, impacts associated with constructing and reclaiming a new onsite septic system would be less than significant.

The proposed reclamation project would return the site to a more natural condition and no new stormwater drainage facilities would be required except for limited measures required as part of NPDES permitting and as approved and described as part of the reclamation plan. No impact would result from new or expanded wastewater treatment or stormwater drainage facilities that are not anticipated as part of the proposed reclamation project or required as conditions of the NPDES permit and WDRs.

- d. The primary source of water for onsite activities would be drainage that daylight at the entrance from the Eagle Bird No. 2 adit. A second source could be the spring located south of the Eagle Bird No. 2 adit that flows to the retention pond on that claim site. Further water is expected to be available if a well is drilled onsite. All potential water sources for potable use would be subject to review and approval by the Sierra County Department of Environmental Health. The storage and use of onsite water resources for mining activities would be subject to review and approval by the State Water Board and the Forest Service as part of the plan of operations application review process and waste discharge requirements. No new entitlements for water supply would be required for the proposed reclamation project and no impacts would occur as a result of expanded entitlements.
- e. See (a) above.
- f. – g. The Loyalton landfill is permitted to operate with oversight by the Sierra County Health Department through 2016 and currently has adequate capacity to accept waste generated during reclamation of the project site, which would primarily include materials generated during demolition of existing structures onsite. The Sierra County landfill in Loyalton will close in 2016 and will no longer be accepting solid waste. Sierra County is evaluating options for solid waste disposal following closure of the Loyalton facility, including hauling waste to other existing facilities in the region. A decision regarding future facilities is anticipated by April 2015. Reclamation waste generated after 2016 would be hauled to the new facility for disposal and it is anticipated that the waste generated by the proposed project would be accommodated at the new facility under new contracts.

The construction/ demolition contractor(s) would be required to comply with all federal, State and local regulations with regard to solid waste disposal. The project site would continue to be served by Sierra County waste collection services and disposal services, which comply with applicable standards and regulations for waste hauling, recycling,

and disposal.

Mitigation Measures

No mitigation measures are necessary.

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

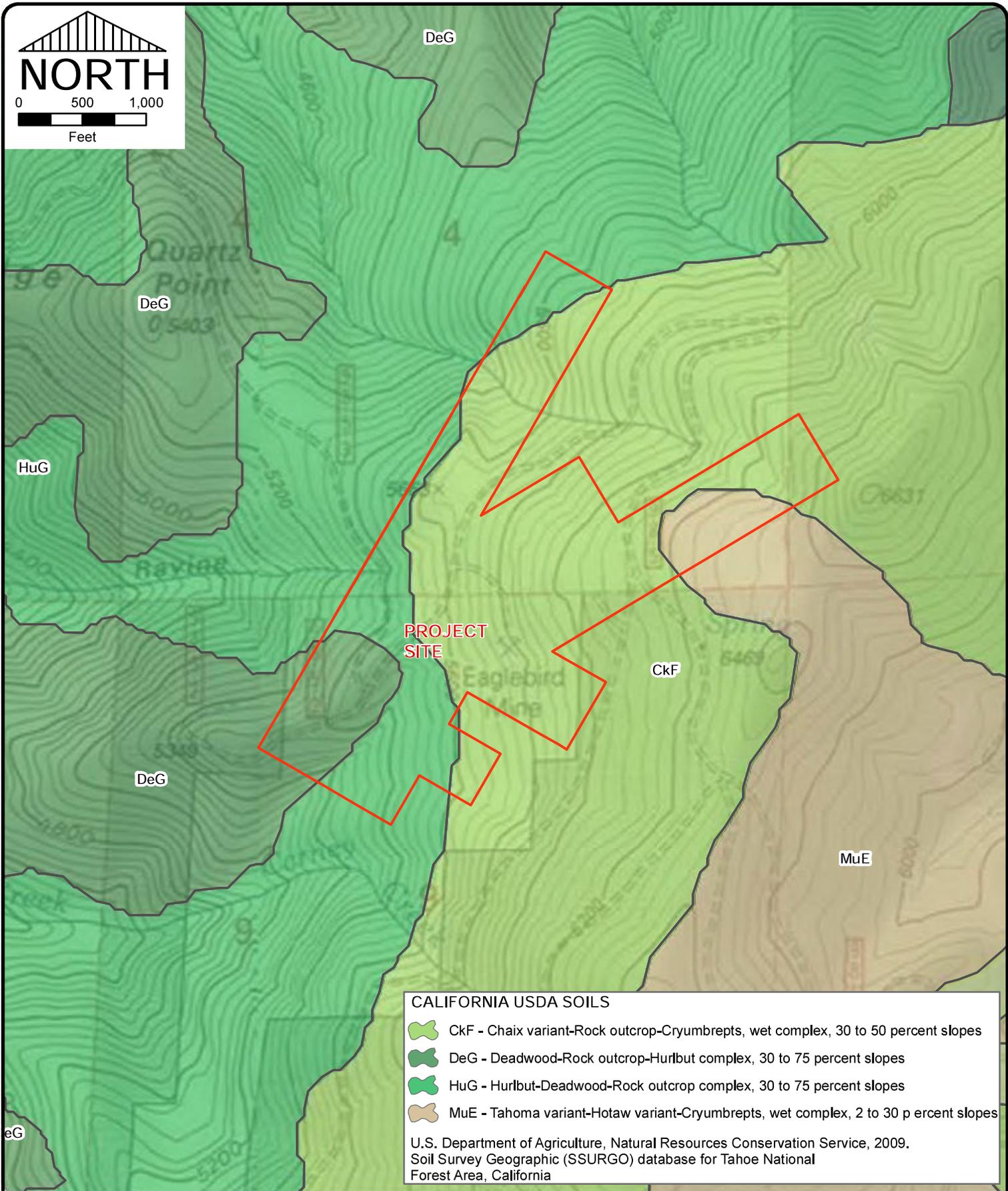
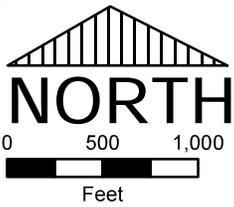
Sections I through XVII of this Initial Study provide an analysis of potential environmental impacts of the proposed project, including adverse effect on human beings. Mitigation measures to avoid, minimize, or compensate for potential impacts identified are included in *Sections IV-Biological Resources, V-Cultural Resources, VI-Geology and Soils, XII-Noise, and XVI-Transportation/Traffic*. With implementation of the mitigation measures identified in this document, the project would result in less than significant impacts associated with degrading the quality of the environment, affecting sensitive species or their unique habitats, or damaging or eliminating important example of cultural history or prehistory.

REFERENCES

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APPENDIX A – Figures

(Selected figures from Plan of Operations, Reclamation Plan and Financial Assurances Cost Estimate)



CALIFORNIA USDA SOILS

-  CkF - Chaix variant-Rock outcrop-Cryumbrepts, wet complex, 30 to 50 percent slopes
-  DeG - Deadwood-Rock outcrop-Hurlbut complex, 30 to 75 percent slopes
-  HuG - Hurlbut-Deadwood-Rock outcrop complex, 30 to 75 percent slopes
-  MuE - Tahoma variant-Hotaw variant-Cryumbrepts, wet complex, 2 to 30 percent slopes

U.S. Department of Agriculture, Natural Resources Conservation Service, 2009.
Soil Survey Geographic (SSURGO) database for Tahoe National Forest Area, California



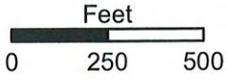
CONDOR EARTH TECHNOLOGIES, INC.
21663 Brian Lane
P.O. Box 3905
Sonora, CA 95370
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www.condorearth.com

Job No.	6149B
Published Data	20 MARCH 2012
Scale	AS SHOWN
Drawn	JDM
Chk'd	MC

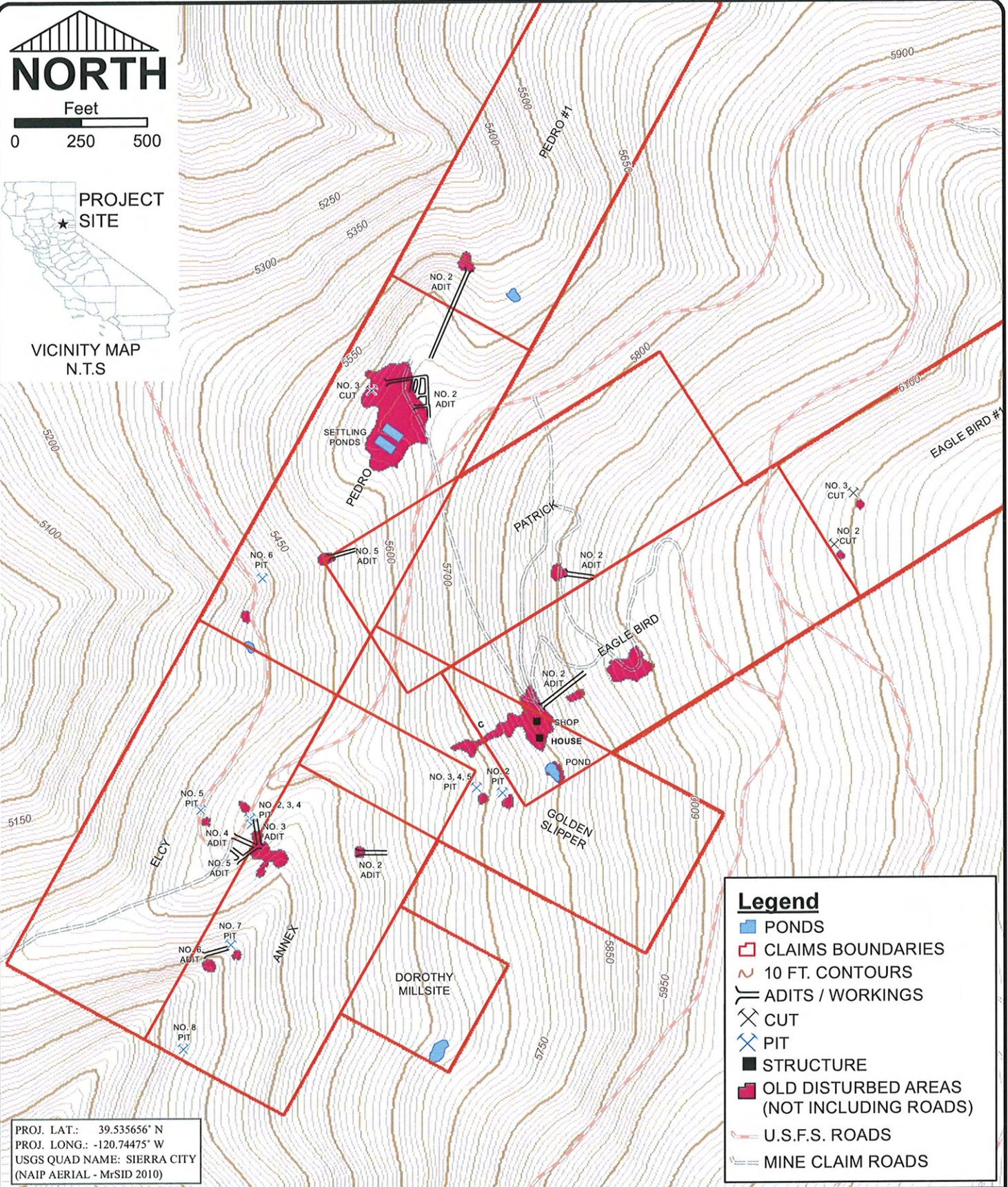
SOIL MAP
EAGLE BIRD MINING COMPANY, LLC
NEAR DOWNIEVILLE, SIERRA COUNTY, CA

FIGURE
6

File No.
6149_SOIL_F6.mxd



VICINITY MAP
N.T.S.



Legend

- PONDS
- CLAIMS BOUNDARIES
- 10 FT. CONTOURS
- ADITS / WORKINGS
- CUT
- PIT
- STRUCTURE
- OLD DISTURBED AREAS (NOT INCLUDING ROADS)
- U.S.F.S. ROADS
- MINE CLAIM ROADS

PROJ. LAT.: 39.535656° N
 PROJ. LONG.: -120.74475° W
 USGS QUAD NAME: SIERRA CITY
 (NAIP AERIAL - MrSID 2010)

CONDOR EARTH TECHNOLOGIES, INC.

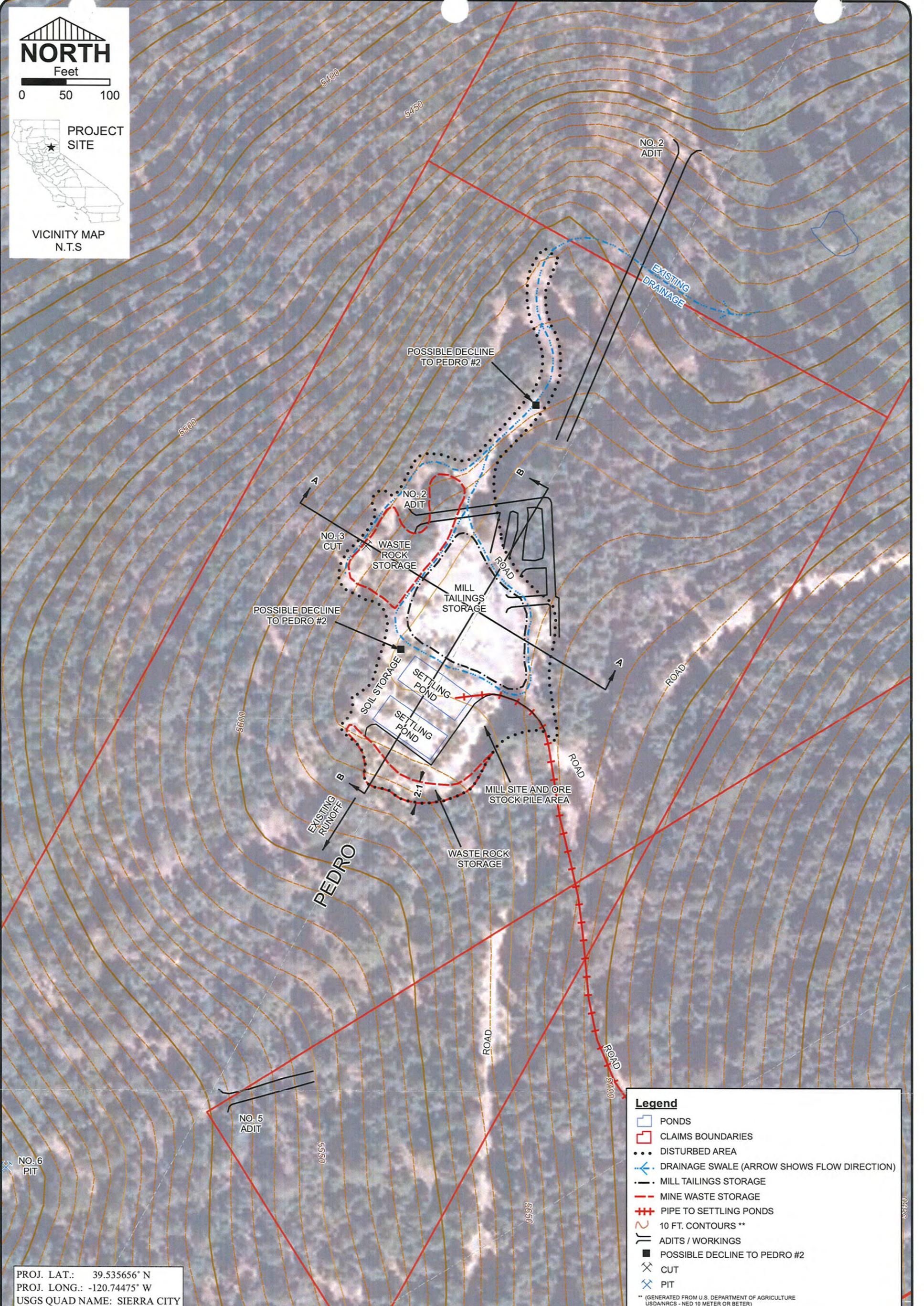
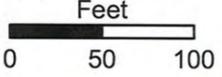
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 Published Data 05 MARCH 2012
 Scale AS SHOWN
 Drawn JDM / Chk'd MC

**DISTURBED AREAS
 PLAN OF OPERATION
 EAGLE BIRD MINING COMPANY, LLC
 NEAR DOWNIEVILLE, SIERRA COUNTY, CA**

**FIGURE
 7**
 File No. 6149_DIST_F9

NORTH



Legend

- PONDS
- CLAIMS BOUNDARIES
- DISTURBED AREA
- DRAINAGE SWALE (ARROW SHOWS FLOW DIRECTION)
- MILL TAILINGS STORAGE
- MINE WASTE STORAGE
- PIPE TO SETTLING PONDS
- 10 FT. CONTOURS **
- ADITS / WORKINGS
- POSSIBLE DECLINE TO PEDRO #2
- CUT
- PIT

** (GENERATED FROM U.S. DEPARTMENT OF AGRICULTURE USDA/NRCS - NED 10 METER OR BETTER)

PROJ. LAT.: 39.535656° N
 PROJ. LONG.: -120.74475° W
 USGS QUAD NAME: SIERRA CITY

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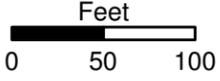
Job No. 6149A
 Published Data 15 FEB. 2012
 Scale AS SHOWN
 Drawn JDM Chk'd PG

**CLAIMS GROUP MAP
 PEDRO ADIT AREA MAP
 EAGLE BIRD MINING COMPANY, LLC
 NEAR DOWNIEVILLE, SIERRA COUNTY, CA**

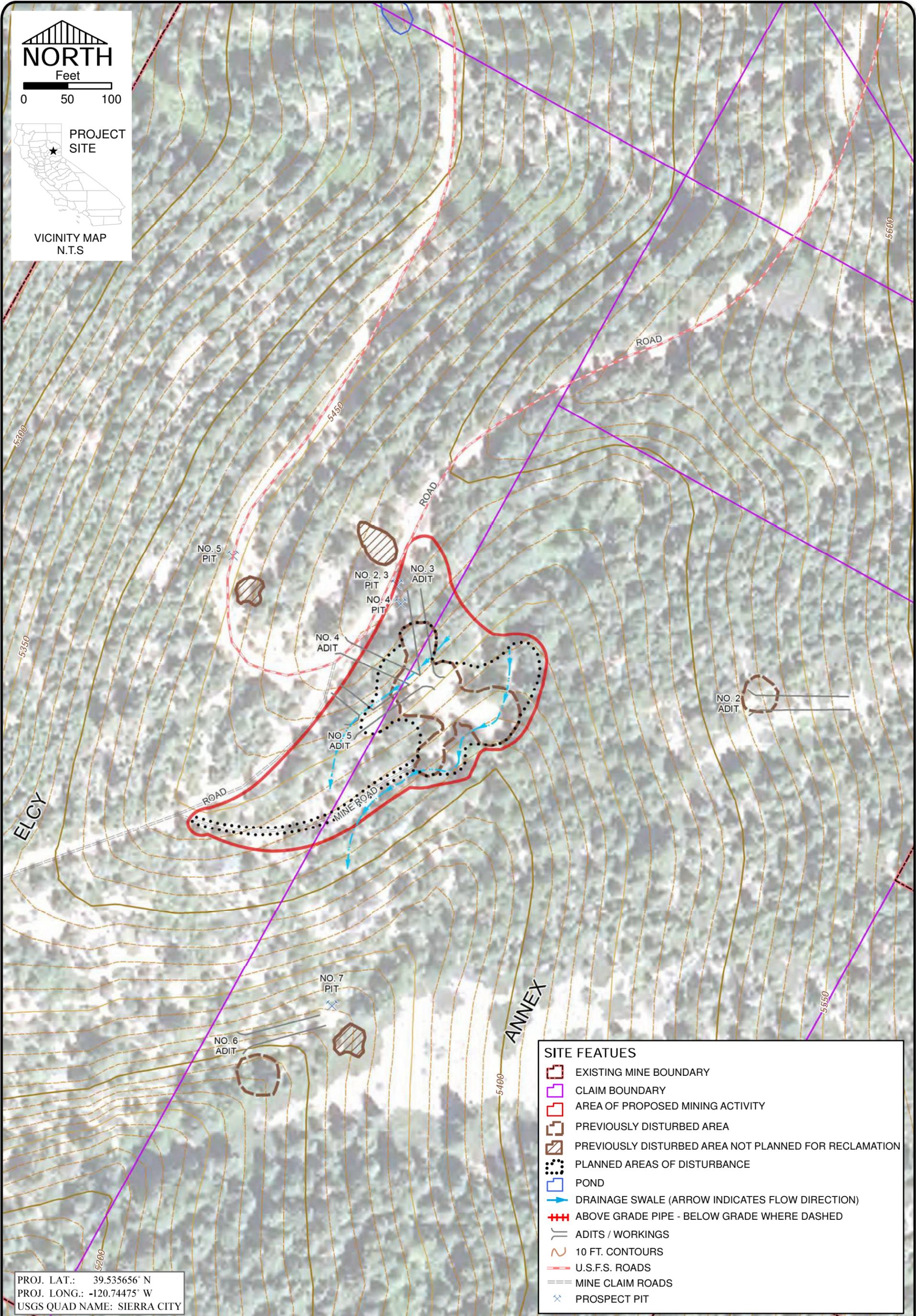
FIGURE 8

File No. 6149_PEDRO

NORTH



VICINITY MAP
N.T.S



PROJ. LAT.: 39.535656° N
PROJ. LONG.: -120.74475° W
USGS QUAD NAME: SIERRA CITY

SITE FEATURES	
	EXISTING MINE BOUNDARY
	CLAIM BOUNDARY
	AREA OF PROPOSED MINING ACTIVITY
	PREVIOUSLY DISTURBED AREA
	PREVIOUSLY DISTURBED AREA NOT PLANNED FOR RECLAMATION
	PLANNED AREAS OF DISTURBANCE
	POND
	DRAINAGE SWALE (ARROW INDICATES FLOW DIRECTION)
	ABOVE GRADE PIPE - BELOW GRADE WHERE DASHED
	ADITS / WORKINGS
	10 FT. CONTOURS
	U.S.F.S. ROADS
	MINE CLAIM ROADS
	PROSPECT PIT

CONDOR EARTH TECHNOLOGIES, INC.



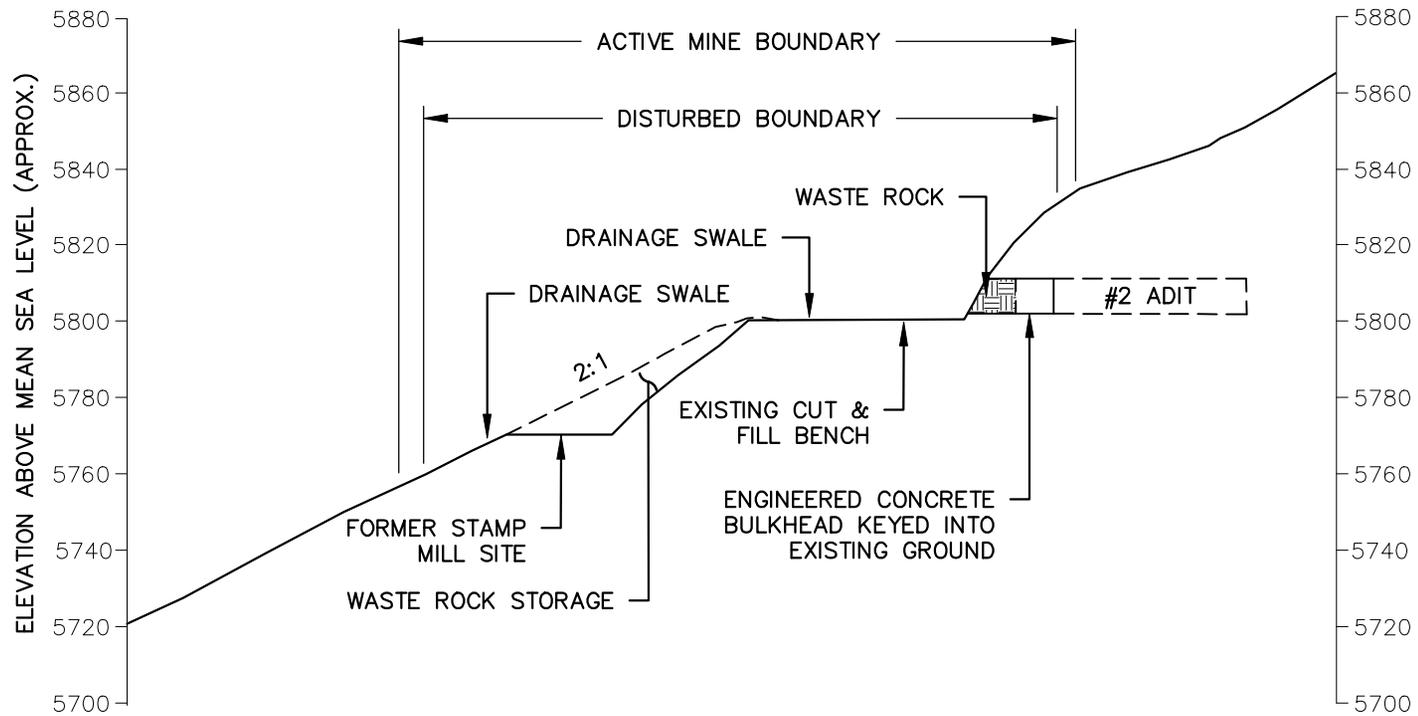
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Job No.	6149B
Published Data	18 DEC. 2014
Scale	AS SHOWN
Drawn	JDM
Chk'd	MC

CLAIMS GROUP MAP
ELCY & ANNEX ADIT AREA MAP
EAGLE BIRD MINING COMPANY, LLC
NEAR DOWNIEVILLE, SIERRA COUNTY, CA

FIGURE
10

File No.
6149_ELCY.mxd



SECTION C

SCALE: 1" = 50'

File No.
6149B_F14-16_18

16

FIGURE



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Job No. 6149B	
Date 18 DEC. 2014	
Scale AS SHOWN	
Drawn JDM	Chk'd MRC

**EAGLE BIRD ADIT
WASTE ROCK STORAGE AREA PROFILE
EAGLE BIRD MINING COMPANY, LLC
NEAR DOWNIEVILLE, SIERRA COUNTY, CALIFORNIA**