

BIOLOGICAL RESOURCES ASSESSMENT

“Golden Girl Mine”
Nevada County, CA

July 2008



Prepared For:

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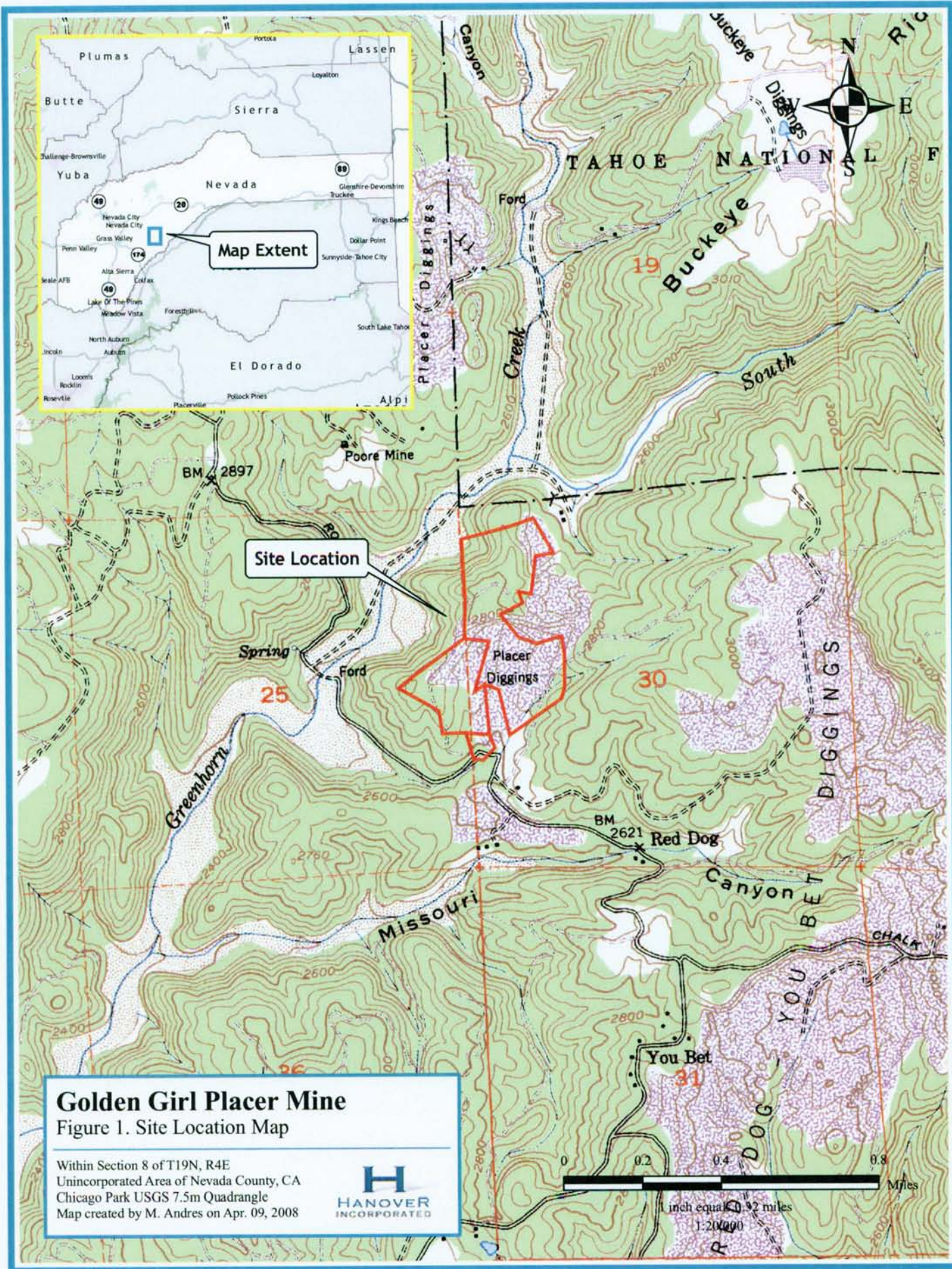
Summary of Findings and Conclusions

As requested by Advanced Geologic, Hanover Environmental Services, Inc. performed biological resource surveys within the Golden Girl Mine, Biological Survey Area (BSA) located in Nevada County, California. The approximately 75 acre BSA is located within T19N, R4E Section 8 of the Chicago Park U.S.G.S. 7.5 min. Quadrangle (**Figure 1**). The BSA is located east of Grass Valley and Nevada City in eastern Nevada County. The BSA consists almost entirely of mine tailing left from the extremely destructive practice of hydraulic mining which occurred prior to 1930. Small pockets of undisturbed land exist within the property boundary and will be the focus of the proposed mining activity. Two ponds, which support seasonal wetlands, are present in the central portion of the BSA. These ponds exist in topography carved out by the previous mining operations and have no known outlets. Wetlands are considered sensitive biological resources by the California Environmental Quality Act, and are protected under Section 404 of the Clean Water Act. Three mine tailing ponds exist at the northern portion of the survey area and are used for current mining activities. Surveys were conducted on April 14, 2008 to determine the presence of sensitive natural resources within the BSA and to determine if these resources would be impacted by the proposed project. Brooks Taylor, biologist, and Mary Bailey, botanist, performed the field surveys.

No special status species were observed however potential habitat for Foothill yellow-legged frog (*Rana boylei*), a DFG species of special concern, occurs within the BSA. There is one documented occurrence of yellow-legged frogs in Greenhorn Creek which flows adjacent to the Golden Girl Mine property.

In order to prevent or minimize the negative impacts of surface mining to public health, property and the environment the mine operator will be required to create a reclamation plan in accordance with the Surface Mining and Reclamation Act.

The project will require complete compliance with CEQA and Nevada County will serve as the lead agency. As such, the County will conduct an environmental review, which will include a review of all studies conducted in compliance with CEQA, and the creation and adoption of appropriate mitigation measures. The applicant will be required to conform to all elements of the Nevada County General Plan which protect sensitive biological resources.



1.0 Introduction

As requested by Advanced Geologic., Hanover Environmental Services, Inc. performed biological resource surveys within the Golden Girl Mine, Biological Survey Area (BSA) located in Nevada County, California. The approximately 75 acre BSA is located within T19N, R4E Section 8 of the Chicago Park U.S.G.S. 7.5 min. Quadrangle (**Figure 1**). The BSA is located east of Grass Valley and Nevada City in eastern Nevada County. The BSA, in large part, consists of mine tailing left from the extremely destructive practice of hydraulic mining which occurred prior to 1930. Small pockets of undisturbed land also exist within the property boundary and will be the focus of the proposed mining activity. Also, as a result of hydraulic mining, large vertical cliffs are present throughout the BSA (see **Site Photos, Appendix A**).

2.0 Project Description

Proposed for the Golden Girl mine is a terrestrial mining operation. The mining operation will operate in 8 phases and is expected to take approximately 50 years (**Figure 2**). Vegetation will be removed and the top layer of soil will be stockpiled. Upon completion of each phase of the operation soil will be redistributed, graded to create natural topography and the area will be replanted with native vegetation. This process will also eliminate the unnatural vertical cliffs, which pose a liability problem for the land owner.

3.0 Location and Environmental Setting

The Golden Girl Mine is located in Nevada County, east of Nevada City near the historic communities of “You Bet” and “Red Dog”. The 75 acre mine is comprised almost entirely of land devastated by the historic practice of hydraulic mining. Vegetation types present are a combination of Mix Chaparral and Mix Conifer. Large portions of the property are nearly void of top soil and as such void of vegetation. One large area that was not impacted by the earlier mining practices is separated from the devastated area by a one hundred foot tall, unnatural vertical cliff. Two ponds which support seasonal wetlands are present in the central portion of the BSA. These ponds exist in topography carved out by the previous mining operations and have no known outlets. There are two known vertical shafts that transport rainwater to subterranean horizontal shafts. The horizontal shafts transport water to outlets in the side of the mountain north of the mines site. The water from these shafts flows downhill to form a confluence with Greenhorn Creek.

4.0 Study Methods

Biological Resources

The following section explains the biological resources included in this assessment, which are considered to be especially sensitive to disturbance by regulatory agencies.

Threatened and Endangered Species

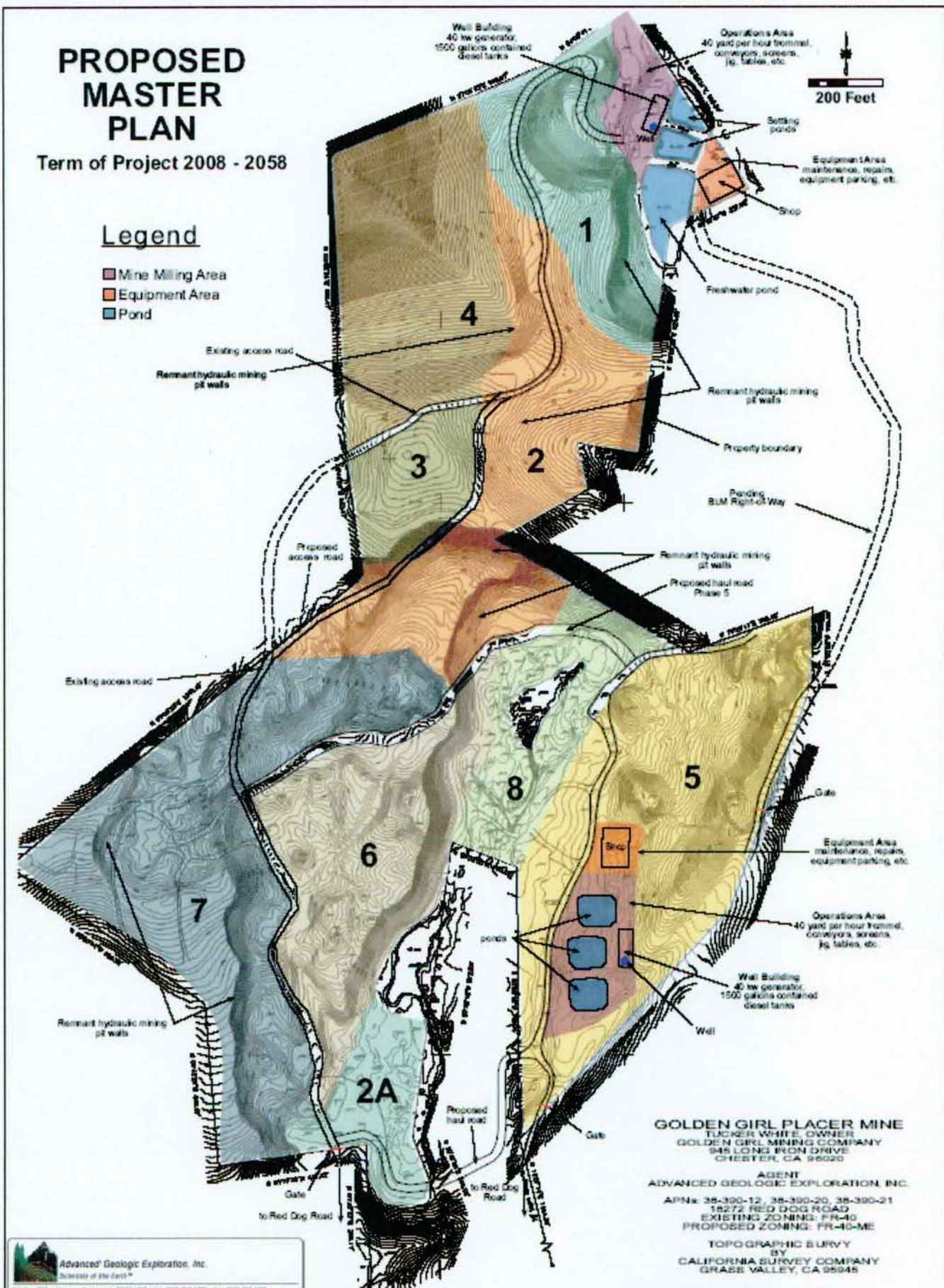
Under the State and Federal ESA, species may be listed as either “endangered” or “threatened.” Endangered means a species is in danger of extinction throughout all or a significant portion of

PROPOSED MASTER PLAN

Term of Project 2008 - 2058

Legend

- Mine Milling Area
- Equipment Area
- Pond



GOLDEN GIRL PLACER MINE
 TUCKER WHITE, OWNER
 GOLDEN GIRL MINING COMPANY
 945 LONG BEACH DRIVE
 CHESTER, CA 95620

AGENT
ADVANCED GEOLOGIC EXPLORATION, INC.
 APNs: 35-390-12, 35-390-20, 35-390-21
 15272 RED DOG ROAD
 EXISTING ZONING: FR-40
 PROPOSED ZONING: FR-40-ME

TOPOGRAPHIC SURVY
 BY
 CALIFORNIA SURVEY COMPANY
 GRASS VALLEY, CA 95945

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its range. Threatened means a species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range. All species of plants and animals, except pest insects and non-native species are eligible for listing as endangered or threatened. For the purposes of the ESA, Congress defined species to include subspecies, varieties, and, for vertebrates, distinct population segments.

Candidate Species

The U.S. Fish and Wildlife Service (USFWS) maintains a list of “candidate” species. These are species for which there is sufficient information to warrant proposing them for listing but that have not yet been proposed because of higher listing priorities. While listing actions of higher priority go forward, the USFWS works with states, tribes, private landowners, private partners, and other federal agencies to carry out conservation actions for these species to prevent further decline and possibly eliminate the need to list them.

Species of Concern

Sensitive Species of Concern are those that have the potential for listing under state and/or federal Endangered Species Acts (ESAs) if negative population trends continue. By considering them early in the planning process, problems can be avoided if listing occurs before the completion of a project.

Critical Habitat

In addition to potentially occurring special-status wildlife and plant species, we determined whether or not critical habitat occurred onsite. When USFWS lists a species as threatened or endangered under the federal Endangered Species Act (ESA), areas of habitat considered essential to its conservation and survival may be designated as critical habitat. These areas may require special consideration and/or protection due to their ecological importance. Although critical habitat may be designated on state or private lands, activities on them are not restricted unless there is federal involvement or direct impacts to listed species.

Critical habitat includes stream channels with certain occupied stream reaches and includes a lateral extent as defined by the ordinary high water mark (33 CFR 329.11) or the bankfull elevation. The critical habitat designation identifies primary constituent elements that include sites necessary to support one or more life stages and the physical or biological features essential for conservation of the evolutionary significant unit. Specific sites within the Action Area include freshwater rearing sites, and freshwater migration corridors. The physical or biological features that characterize these sites include water quality, quantity, depth and velocity, shelter/cover, living space, and passage conditions.

CDFG Sensitive Natural Communities

Under CEQA, a project that substantially adversely affects any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFG or USFWS, will have a significant impact on the environment. For this assessment, the term

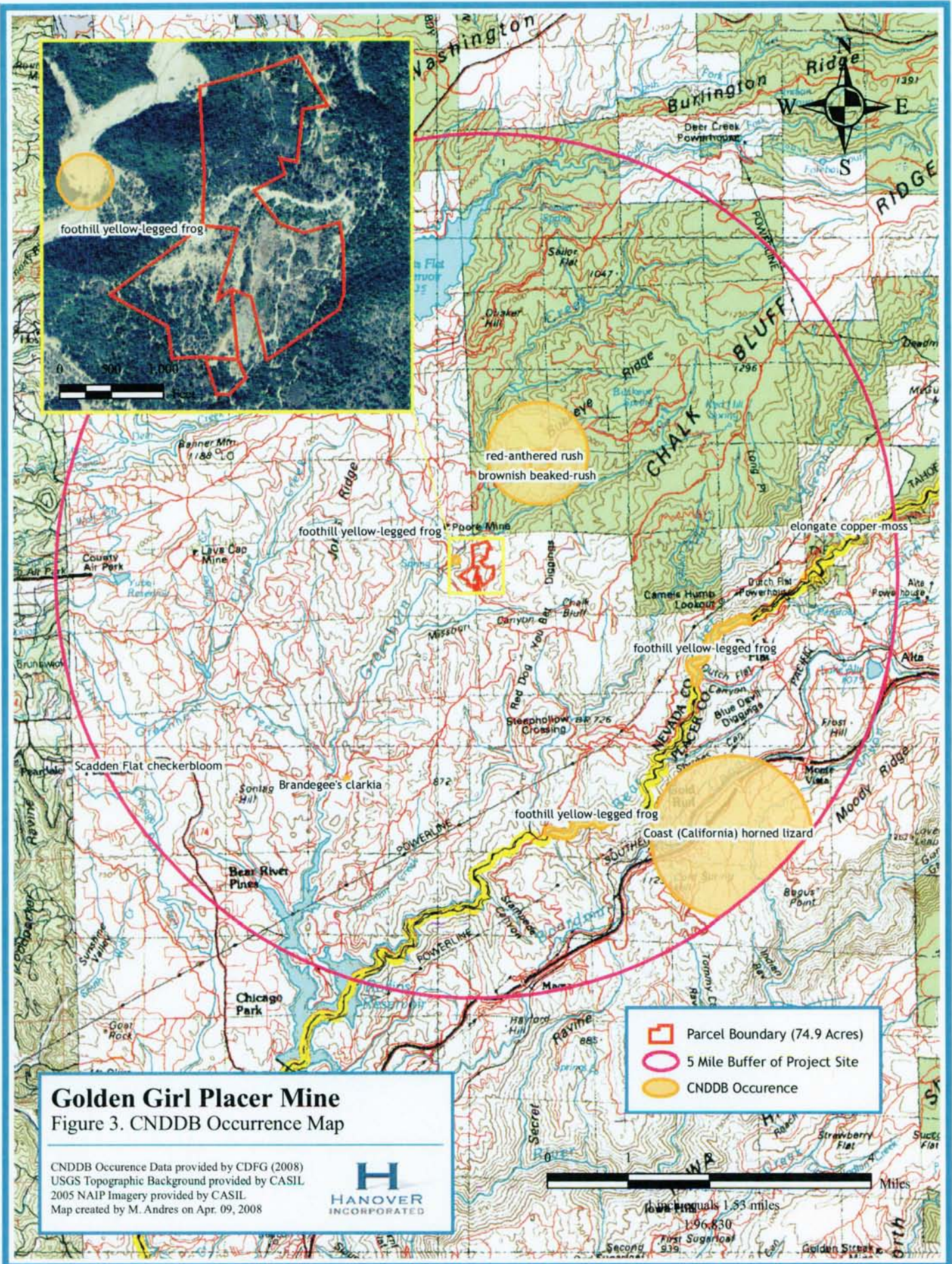
“sensitive natural community” includes those communities that, if eliminated or substantially degraded, would sustain a significant adverse impact as defined under CEQA. Natural communities designated sensitive by the CDFG include, but are not limited to, Great Valley Mixed Riparian Forest, Great Valley Willow Scrub, California blue oak woodland and riverine (rivers and streams). Awareness of these community-types is imperative as mounting degradation and destruction threatens populations of dependent plant and wildlife species, significantly reducing their regional distribution and viability. Loss of sensitive natural communities can also eliminate or reduce important ecological functions such as water filtration by wetlands and bank stabilization by riparian woodlands.

Waters of the United States, Including Wetlands

The U.S. Army Corps of Engineers (COE) and the U.S. Environmental Protection Agency (EPA) regulate the discharge of dredged or fill material into jurisdictional waters of the United States, under Section 404 of the Clean Water Act. The term “Waters of the United States” is an encompassing term that includes “wetlands” and “Other Waters.” Wetlands have been defined for regulatory purposes as follows: “Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.” Other Waters of the United States are seasonal or perennial water bodies, including lakes, stream channels, drainages, ponds, and other surface water features, that exhibit an ordinary high-water mark but lack positive indicators for one or more of the three wetland parameters (i.e. hydrophytic vegetation, hydric soil, and wetland hydrology) (33 CFR 328.4).

Consultation with State and Federal Agencies

Prior to conducting field surveys, a list of potentially occurring special-status wildlife and plant species occurring within the BSA was created by accessing all relevant databases, and contacting appropriate state and federal agencies. A database search of the California Natural Diversity Database (CNDDB) (April 2008) (**Figure 3**) was performed and the USFWS consulted to create a list of special-status wildlife species and sensitive natural communities potentially occurring within the BSA. Topographic maps and aerial photos of the site were reviewed and areas of potential impact noted. Based on the compiled research and site conditions observed during the surveys, a complete list of all botanical and biological sensitive resources potentially occurring within the BSA is included in **Table 1**.



Golden Girl Placer Mine Figure 3. CNDDDB Occurrence Map

CNDDDB Occurrence Data provided by CDFG (2008)
 USGS Topographic Background provided by CASIL
 2005 NAIP Imagery provided by CASIL
 Map created by M. Andres on Apr. 09, 2008



- Parcel Boundary (74.9 Acres)
- 5 Mile Buffer of Project Site
- CNDDDB Occurrence

Scale bar: 0 to 1.33 Miles

Table 1. Special-status species that are known to occur, or have the potential of occurring within the Golden Girl Mine Project BSA in Nevada County, CA

Common Name <i>Scientific Name</i>	Status Listed in Source	Associated Habitat	Comments
BIRDS			
Northern Goshawk <i>Accipiter gentilis</i>	CSC	Mature coniferous forests consisting of a combination of old, tall trees with intermediate canopy coverage and small open areas within the forest for foraging.	Submarginal nesting and foraging habitat onsite and immediately adjacent to site.
Osprey <i>Pandion haliaetus</i>	SSC	Preys mostly on fish; also takes a few mammals, birds, reptiles, amphibians, and invertebrates. Requires open, clear waters for foraging. Uses rivers, lakes, reservoirs, bays, estuaries, and surf zones.	Suitable nesting and foraging habitat onsite and immediately adjacent to site.
Bald eagle <i>Haliaeetus leucocephalus</i>	FT	Requires large, old-growth trees or snags in remote, mixed stands near water	Not known to occur onsite; Suitable nesting and foraging habitat onsite and immediately adjacent to site.
Greater Sandhill Crane <i>Grus Canadensis tabida</i>	ST	Large open meadows and valleys	No Suitable habitat onsite
INVERTEBRATES			
Valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	FT	Within stems of blue elderberry shrubs (<i>Sambucus mexicana</i>)..	Suitable habitat does not occur onsite.
PLANTS			
<i>Stebbins's morning-glory</i> <i>Calystegia stebbinsii</i>	FE	Chaparral, cismontane woodland	Marginal habitat, not detected during field visit.
<i>Brandegee's clarkia</i> <i>Clarkia biloba ssp. brandegeae</i>	CNPS1B	Chaparral, cismontane woodland	Marginal habitat, not detected during field visit.
<i>Scadden Flad checkerbloom</i> <i>Sidalcea stipularis</i>	FE 1B.1	Marshes and swamps	Marginal habitat, not detected during field visit.
<i>Brownish beaked-rush</i> <i>Rhynchospora capitellata</i>	CNPS2	Lower montane coniferous forest, meadows and seeps, marshes and swamps, upper montane coniferous forest	Suitable habitat near wetland areas, not detected during surveys.
<i>Redanthered rush</i> <i>Juncus marginatus var. marginatus</i>	CNPS2	Marshes and swamps	Suitable habitat near wetland areas, not detected during surveys.
REPTILES & AMPHIBIANS			
California red-legged frog <i>Rana aurora draytonii</i>	FT	Ponds and small reservoirs, but may also be found along lakeshores and in marshy areas	Not known to occur onsite. Marginal habitat occurs onsite. Numerous bull frogs were seen during surveys and site has no hydrologic connected to any known population.

Foothill yellow-legged frog	FC	Shallow, slow, gravelly streams and rivers with sunny banks, in forests, chaparral, woodlands.	Known occurrence in Greenhorn Creek adjacent to project site
Mountain yellow-legged frog	SC	Lakes, meadow streams, isolated pools, sunny riverbanks in the Sierra Nevada.	Marginal habitat, no known occurrences on site or in the Greenhorn Creek drainage
FISH			
Delta smelt <i>Zhyopomesus transpacificus</i>	FT	Central Valley rivers	No Potential to occur within survey area. Greenhorn creek is disconnected from waters that support these species by multiple dams, including Folsom Dam.
Central Valley steelhead <i>Oncorhynchus mykiss</i>	FT	Central Valley rivers and their tributaries, west to the Pacific Ocean.	
Central Valley spring-run Chinook salmon <i>Oncorhynchus tshawytscha</i>	FE	Central Valley rivers and their tributaries, west to the Pacific Ocean.	
MAMMALS			
Fisher <i>Martes pennanti</i>	FC	Remote, heavily wooded areas consisting of spruce, fir, or mixed hardwood trees. Likely extirpated from area.	Poor habitat, no known presence within region.

FE-Federally endangered
 FT-Federally threatened
 FP-Federally proposed for listing
 NMFS-species under the jurisdiction of the National Marine Fisheries Services
 FC-Federal candidate for listing
 CA-listed by the State of California but not by the Fish & Wildlife Service
 CSC-California species of concern
 CNPS 1B-California Native Plant Society rare and endangered.

The CNDDDB and USFWS species lists are presented in **Appendix B** and lists of vascular plants identified on April 14, 2008 are included in **Appendix C**.

It is worthy to note that the Sacramento Fish and Wildlife Service no longer maintains a list of Species of Concern. Therefore, this assessment does not include federal species of concern. For the purposes of this survey, special-status species are those that fall into one of the following categories:

- Designated as rare, threatened, or endangered by state or federal governments (ESA, 50 CFR 17.12 for listed plants and various notices in the Federal Register, California Endangered Species Act (CESA), 14 CCR 670.5);
- Designated as Species of Concern and/or Special Concern by state or federal governments;
- Proposed for rare, threatened, or endangered designation by state and federal governments;
- Included on the California Native Plant Society (CNPS) List as 1A, 1B, and 2 (Skinner and Pavlik, 2001);
- Plants and wildlife that meet the definitions of rare or endangered species under the California Environment Quality Act (CEQA) (State CEQA Guidelines, Section 15380).

Field Surveys

Biological Resources

Prior to conducting the onsite survey, lists of sensitive wildlife taxa were consulted, and species potentially occurring within the BSA were identified. Maps of the site were obtained and areas of potential impact were delineated. On April 14, 2008 a biological resource survey was conducted to cover the prescribed BSA. Brooks Taylor, biologist, and Mary Bailey, botanist, conducted the biological resource survey (see **Appendix B** for results).

Botanical Resources

Prior to conducting the onsite survey, lists of sensitive plant taxa were consulted, and species potentially occurring within the BSA were identified. Maps of the site were obtained and areas of potential impact were delineated. On April 14, 2008 a general, pedestrian survey of the site was conducted. Mary Bailey, botanist, conducted the botanical survey (see **Appendix C** for results).

5.0 Results

Common Wildlife Species

Very little wildlife was identified during the field surveys though indications of black-tailed deer, black bear, wild turkey, coyote were visible. Numerous Pacific treefrog (*Pseudacris regilla*) were observed within the BSA and American bullfrogs (*Rana catesbeiana*) were observed in the settling ponds and the wetland areas. The BSA has potential to support numerous species of migratory birds, including raptors.

Special-Status Species

The following species were either detected during surveys, or moderate to high potential for occurrence exists according to documented CNDDDB occurrences in close proximity to the BSA and/or the presence of suitable habitat in, and immediately adjacent to the BSA: The BSA also provides optimal nesting and foraging habitat for several raptor species.

The following is a discussion of those species that were either detected during surveys, or have a moderate to high potential for occurrence according to documented CNDDDB occurrences and/or the presence of suitable habitat in and immediately adjacent to the BSA.

Foothill Yellow Legged Frog

There is one known occurrence of Foothill yellow-legged frogs adjacent to the BSA. None were seen during field surveys, however due to the known occurrence and marginal habitat within the BSA, additional surveys may be necessary if impacts to wetlands are proposed.

Common Raptors

Raptors in the orders Falconiformes (hawks, eagles, and falcons) and Strigiforms (owls) are protected in varying degrees under California Fish and Game Code, Section 3503.5, the Migratory Bird Treaty Act, as well as state and federal ESA's and CEQA. Several large trees in and adjacent to the BSA, as well as surrounding habitat, provide suitable nesting and foraging habitat respectively for many of these species. Therefore, a pre-construction raptor survey should be conducted from April to May, or prior to vegetation removal activities, to determine the presence of nesting raptors in the project area. Should nesting raptors be observed, appropriate mitigation or avoidance measures may be required per CDFG. Direct take of active nests, eggs, or birds is prohibited by CDFG and measures must be taken to minimize disturbance.

Waters of the United States

Although a formal delineation of Waters of the U.S. was not conducted by Hanover Environmental Services, Inc., wetlands were located within the BSA. Two ponds, remnants of past hydraulic mining, were present on site. These ponds were formed when all surface soil was removed from the area, leaving only bedrock and cobble. There appears to be no outlet for the ponds which appear to be fed by "sleuce" canals that were carved out during previous mining operations. These ponds rely entirely on local rain water or snow melt. It is likely the Corps of Engineers would determine these ponds to be isolated and therefore not fall under their jurisdiction. Two remnant vertical shafts transport water to subterranean horizontal shafts which in turn transport water to the hillside above Greenhorn Creek. Because these tunnels convey water to Greenhorn Creek it is possible the Corps will consider all wetlands to be jurisdictional.

Botanical Species

There is a significant lack of an herbaceous ground story in the upland areas. Vegetation is primarily composed of woody species such as Ponderosa pine, Douglas fir, whiteleaf manzanita, madrone, buck brush, canyon live oak, scrub oak and black oak.

Vegetation within wetland areas associated with the sluice tunnels and intermittent drainages is more diverse with a marginally developed herbaceous community.

No sensitive species of vascular plants were discovered during the survey. Habitat is present within wetland areas for brownish beaked rush (*Rhynchospora capitellata*). At the time of the survey, this species would not be identifiable. If any disturbance to wetland areas is anticipated, a follow-up survey for this species should occur during summer months (July to August). A complete list of plants observed during field surveys is available in **Appendix C**.






Soils

The site has been highly disturbed and nearly all native soil has been removed (soils Map, **Figure 4**). Pockets of soils remaining include the Horseshoe gravelly loam, 15-30 percent slopes; Josephine-Mariposa complex, 15-50 percent slopes, eroded; Josephine-Mariposa complex, 50-75 percent slopes, eroded. The remaining land is either Placer diggings or tailings.

 Parcel Boundary (74.9 Acres)

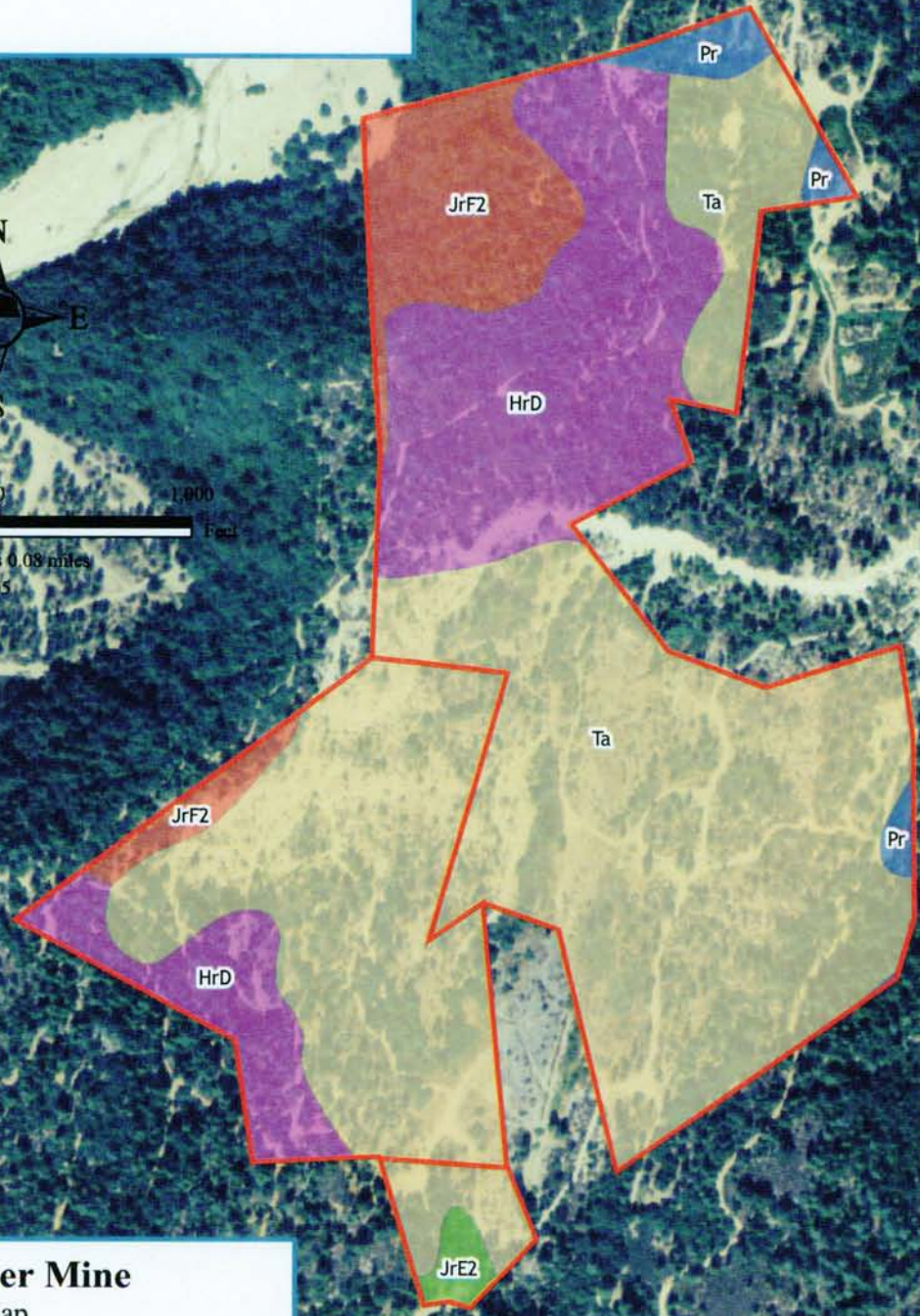
Soil Survey

Map Unit Description

-  HrD, Horseshoe gravelly loam, 15 to 30 percent slopes
-  JrE2, Josephine-Mariposa complex, 15 to 50 percent slopes, eroded
-  JrF2, Josephine-Mariposa complex, 50 to 75 percent slopes, eroded
-  Pr, Placer diggings
-  Ta, Tailings



1 inch equals 0.08 miles
1:5,305



Golden Girl Placer Mine

Figure 4. Soil Survey Map

Soil Data provided by NRCS
2005 NAIP Imagery provided by CASIL
Map created by M. Andres on Apr. 09, 2008



6.0 Potential Impacts and Mitigation

Foothill Yellow Legged Frog

Typical work windows for areas with potential to support yellow-legged frogs state that no work should be conducted prior to June 1 of a Calendar year. Prior to impacts of wetland or other waters within the BSA protocol level surveys may be required. If frogs or egg masses are located, mitigation will include the moving of the egg masses to an area outside of the designated work zone.

Common Raptors

Raptors in the orders Falconiformes (hawks, eagles, and falcons) and Strigiforms (owls) are protected in varying degrees under California Fish and Game Code, Section 3503.5, the Migratory Bird Treaty Act, as well as state and federal ESA's, and CEQA. Numerous large trees within and adjacent to the BSA, as well as open shrub habitat onsite, provide suitable nesting and foraging habitat respectively for many of these species. Therefore, a pre-construction raptor survey should be conducted April-May, or no more than 14 days prior to construction activities, to determine the presence of nesting raptors in the project area. Should nesting raptors be observed, appropriate mitigation or avoidance measures may be required per CDFG. Direct take of active nests, eggs, or birds is prohibited by CDFG and measures must be taken to minimize disturbance.

Waters of the United States

The proposed project has the potential of placing dredged or fill material into the sluice canals and seasonal wetlands within the BSA therefore, prior to working within the jurisdictional features or filling waters of the U.S., the project proponent will obtain the necessary Clean Water Act, Section 401 and 404 permits as necessary.

Section 1602 of the California Fish and Game Code requires a state or local governmental agency or public utility to notify CDFG before it begins a construction project that will: (1) divert, obstruct, or change the natural flow or the bed, bank, channel, or bank of any river, stream, or lake; (2) use materials from a streambed; or (3) result in the disposal or deposition of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into any river, stream, or lake. Once the notification is filed and determined to be complete, CDFG will issue a streambed alteration agreement that contains conditions for construction and operations of the proposed project.

Vegetation Removal

A vegetation management plan will need to be implemented, and approved by Nevada County, to restore all vegetation to natural conditions. Monitoring and annual reporting will likely be required by the County.

7.0 Regulatory Framework

The following laws and regulations were identified as possible constraints to development within the assessment area based on the identified resources.

Endangered Species Act

USFWS and the National Oceanic and Atmospheric Administration, Fisheries Division (NOAA Fisheries) have jurisdiction over species listed as threatened or endangered under Section 9 of the federal Endangered Species Act (ESA). The ESA protects listed species from harm, or take, which is broadly defined as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct.” Under the ESA, a federal agency must consult with USFWS and NOAA Fisheries if the agency’s action may affect a threatened or endangered species and/or Critical Habitat under the authority of each agency.

California Endangered Species Act

CDFG has jurisdiction over species listed as threatened or endangered under Section 2080 of the California Fish and Game Code. Section 2080 prohibits the take of a species listed by CDFG as threatened or endangered. The state definition of take is similar to the federal definition, except that Section 2080 does not prohibit indirect harm to listed species by way of habitat modification. To qualify as take under the ESA, an action must have direct, demonstrable detrimental effect on individuals of the species. Impacts on habitat that may ultimately result in effects on individuals are not considered take under the state ESA but can be considered take under the federal ESA.

Proponents of a project affecting a state-listed species must consult with CDFG and enter into a management agreement and take permit under Section 2081. The state ESA consultation process is similar to the federal process. California ESA does not require preparation of a state biological assessment; the federal biological assessment and the CEQA analysis or any other relevant information can provide the basis for consultation. California ESA requires that CDFG coordinate consultation for joint federally listed and state-listed species to the extent possible; generally, the state opinion for the listed species is brief and references provisions under the federal opinion.

Clean Water Act, Section 404

The Corps and the U.S. Environmental Protection Agency regulate the placement of dredged or fill material into “Waters of the United States” under Section 404 of the Clean Water Act. Waters of the United States include lakes, rivers, streams, and their tributaries, and wetlands. Wetlands are defined for regulatory purposes as “areas inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 Code of Federal Regulations [CFR] 328.3, 40 CFR 230.3).

The Corps may issue either individual permits on a case-by-case basis or general permits on a program level. General permits are preauthorized and are issued to cover similar activities that are expected to cause only minimal adverse environmental effects. Nationwide permits (NWP) are general permits issued to cover particular fill activities. All NWPs have general conditions that must be met for the permits to apply to a particular project, as well as specific conditions that apply to each NWP.

Clean Water Act, Section 401

Section 401 of the Clean Water Act requires water quality certification and authorization of placement of dredged or fill material in wetlands and Other Waters of the United States. In accordance with Section 401 of the Clean Water Act, criteria for allowable discharges into surface waters have been developed by the State Water Resources Control Board, Division of Water Quality. The resulting requirements are used as criteria in granting NPDES permits or waivers, which are obtained through the Central Valley Regional Water Quality Control Board (CVRWQCB). Any activity or facility that will discharge waste (such as soils from construction) into surface waters, or from which waste may be discharged, must obtain an NPDES permit or waiver from the CVRWQCB. The CVRWQCB evaluates an NPDES permit application to determine whether the proposed discharge is consistent with the adopted water quality objectives of the basin plan.

California Fish and Game Code, Sections 1602

Under the California Fish and Game Code, Sections 1602, CDFG regulates projects that divert, obstruct, or change the natural flow or bed, channel, or bank of any river, stream, or lake. Proponents of such projects must notify CDFG and enter into streambed alteration agreement with them.

Section 1602 of the California Fish and Game Code requires a state or local governmental agency or public utility to notify CDFG before it begins a construction project that will: (1) divert, obstruct, or change the natural flow or the bed, bank, channel, or bank of any river, stream, or lake; (2) use materials from a streambed; or (3) result in the disposal or deposition of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into any river, stream, or lake. Once the notification is filed and determined to be complete, CDFG issues a streambed alteration agreement that contains conditions for construction and operations of the proposed project.

California Fish and Game Code, Section 3503.5

Under the California Fish and Game Code, Section 3503.5, it is unlawful to take, possess, or destroy any birds in the orders Falconiformes (hawks, eagles, and falcons) or Strigiformes (owls). Take would include the disturbance of active nest that result in the abandonment or loss of young.

Migratory Bird Treaty Act

The MBTA (16 United States Code [USC] 703) enacts the provisions of treaties between the United States, Great Britain, Mexico, Japan, and the Soviet Union and authorized the U.S. Secretary of the Interior to protect and regulate the taking of migratory birds. The MBTA sets seasons and bag limits for hunted species and protects migratory birds, their occupied nests, and their eggs (16 USC 703, 50 CFR 21, 50 CFR 10).

Surface Mining and Reclamation Act

In order to prevent or minimize the negative impacts of surface mining to public health, property and the environment the mine operator will be required to create a reclamation plan in accordance with the Surface Mining and Reclamation Act of 1975 (SMARA). SMARA is administered jointly by The Department of Conservation's Office of Mine Reclamation (OMR) and the State Mining and Geology Board (SMGB) and the lead agency, which in this case is Nevada County. Additionally, the mine operator will be required to provide financial assurance for clean up and reclamation of the mine site.

Nevada County

The project will require complete compliance with CEQA and Nevada County will serve as the lead agency. As such, the County will conduct an environmental review, which will include a review of all studies conducted in compliance with CEQA, and the creation and adoption of appropriate mitigation measures. The applicant will be required to conform to any elements of the Nevada County General Plan which protect sensitive biological resources, including native trees. The County will also insure compliance with the Surface Mining and Reclamation Act described above.

8.0 References Consulted

California. Office of Planning and Research and Office of Permit Assistance. 1986, 1999 (revision). CEQA: California Environmental Quality Act Statutes and Guidelines. Sacramento, CA.

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Appendix A

Site Photographs







Appendix B

USFWS and CNPS Special-status Species Lists Golden Girl Mine Project BSA and Surrounding Area

Chicago Park CNDDDB
 Natural Diversity Database
 Selected Elements by Common Name - Portrait

Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
1 Brandegee's clarkia <i>Clarkia biloba ssp. brandegeeeae</i>	PDONA05053			G4G5T2	S2.2	1B.2
2 Coast (California) horned lizard <i>Phrynosoma coronatum (frontale population)</i>	ARACF12022			G4G5	S3S4	SC
3 Pacific fisher <i>Martes pennanti (pacifica) DPS</i>	AMAJF01021	Candidate		G5	S2S3	SC
4 Scadden Flat checkerbloom <i>Sidalcea stipularis</i>	PDMAL110R0		Endangered	G1	S1.1	1B.1
5 brownish beaked-rush <i>Rhynchospora capitellata</i>	PMCYP0N080			G5	S2S3	2.2
6 foothill yellow-legged frog <i>Rana boylei</i>	AAABH01050			G3	S2S3	SC
7 red-anthered rush <i>Juncus marginatus var. marginatus</i>	PMJUN011S1			G5T5	S2S3	2.2

**Federal Endangered and Threatened Species that Occur in
or may be Affected by Projects in the Counties and/or
U.S.G.S. 7 1/2 Minute Quads you requested**

Document Number: 080609023345

Database Last Updated: January 31, 2008

Quad Lists

Listed Species

Invertebrates

Desmocerus californicus dimorphus
valley elderberry longhorn beetle (T)

Fish

Hypomesus transpacificus
delta smelt (T)
Oncorhynchus mykiss
Central Valley steelhead (T) (NMFS)
Oncorhynchus tshawytscha
Central Valley spring-run chinook salmon (T) (NMFS)
winter-run chinook salmon, Sacramento River (E) (NMFS)

Amphibians

Rana aurora draytonii
California red-legged frog (T)

Candidate Species

Mammals

Martes pennanti
fisher (C)

Quads Containing Listed, Proposed or Candidate Species:

CHICAGO PARK (541B)

County Lists

Nevada County

Listed Species

Invertebrates

Desmocerus californicus dimorphus
valley elderberry longhorn beetle (T)

Fish

Oncorhynchus (=Salmo) clarki henshawi
Lahontan cutthroat trout (T)

Oncorhynchus mykiss

Central Valley steelhead (T) (NMFS)

Critical habitat, Central Valley steelhead (X) (NMFS)

Amphibians

Rana aurora draytonii

California red-legged frog (T)

Critical habitat, California red-legged frog (X)

Plants

Calystegia stebbinsii

Stebbins's morning-glory (E)

Candidate Species

Amphibians

Rana muscosa

mountain yellow-legged frog (C)

Mammals

Martes pennanti

fisher (C)

Key:(E) *Endangered* - Listed as being in danger of extinction.(T) *Threatened* - Listed as likely to become endangered within the foreseeable future.(P) *Proposed* - Officially proposed in the Federal Register for listing as endangered or threatened.(NMFS) Species under the Jurisdiction of the [National Oceanic & Atmospheric Administration Fisheries Service](#). Consult with them directly about these species.*Critical Habitat* - Area essential to the conservation of a species.(PX) *Proposed Critical Habitat* - The species is already listed. Critical habitat is being proposed for it.(C) *Candidate* - Candidate to become a proposed species.

(V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.

(X) *Critical Habitat* designated for this species

Important Information About Your Species List

How We Make Species Lists

We store information about endangered and threatened species lists by U.S. Geological Survey 7½ minute quads. The United States is divided into these quads, which are about size of San Francisco.

The animals on your species list are ones that occur within, **or may be affected by** projects within, the quads covered by the list.

- Fish and other aquatic species appear on your list if they are in the same watershed as your quad or if water use in your quad might affect them.
- Amphibians will be on the list for a quad or county if pesticides applied in that area may be carried to their habitat by air currents.
- Birds are shown regardless of whether they are resident or migratory. Relevant birds on the county list should be considered regardless of whether they appear on a quad list.

Plants

Any plants on your list are ones that have actually been observed in the area covered by the list. Plants may exist in an area without ever having been detected there. You can find out what's in the surrounding quads through the California Native Plant Society's online [Inventory of Rare and Endangered Plants](#).

Surveying

Some of the species on your list may not be affected by your project. A trained biologist or botanist, familiar with the habitat requirements of the species on your list, should determine whether they or habitats suitable for them may be affected by your project. We recommend that your surveys include any proposed and candidate species on your list.

For plant surveys, we recommend using the [Guidelines for Conducting and Reporting Botanical Inventories](#). The results of your surveys should be published in any environmental documents prepared for your project.

Your Responsibilities Under the Endangered Species Act

All animals identified as listed above are fully protected under the Endangered Species Act 1973, as amended. Section 9 of the Act and its implementing regulations prohibit the take of a federally listed wildlife species. Take is defined by the Act as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any such animal.

Take may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 CFR §17.3).

Take incidental to an otherwise lawful activity may be authorized by one of two procedures:

- If a Federal agency is involved with the permitting, funding, or carrying out of a project that may result in take, then that agency must engage in a formal [consultation](#) with the Service.

During formal consultation, the Federal agency, the applicant and the Service work together to avoid or minimize the impact on listed species and their habitat. Such consultation would result in a biological opinion by the Service addressing the anticipated effect of the project on listed proposed species. The opinion may authorize a limited level of incidental take.

- If no Federal agency is involved with the project, and federally listed species may be taken as part of the project, then you, the applicant, should apply for an incidental take permit. The Service may issue such a permit if you submit a satisfactory conservation plan for the species that would be affected by your project.

Should your survey determine that federally listed or proposed species occur in the area and are likely to be affected by the project, we recommend that you work with this office and the California Department of Fish and Game to develop a plan that minimizes the project's direct and indirect impacts to listed species and compensates for project-related loss of habitat. You should include the plan in any environmental documents you file.

Critical Habitat

When a species is listed as endangered or threatened, areas of habitat considered essential to its conservation may be designated as [critical habitat](#). These areas may require special management considerations or protection. They provide needed space for growth and normal behavior; food, water, air, light, other nutritional or physiological requirements; cover or shelter; and sites for breeding, reproduction, rearing of offspring, germination or seed dispersal.

Although critical habitat may be designated on private or State lands, activities on these lands are not restricted unless there is Federal involvement in the activities or direct harm listed wildlife.

If any species has proposed or designated critical habitat within a quad, there will be a separate line for this on the species list. Boundary descriptions of the critical habitat may be found in the Federal Register. The information is also reprinted in the Code of Federal Regulations (50 CFR 17.95). See our [critical habitat page](#) for maps.

Candidate Species

We recommend that you address impacts to candidate species. We put plants and animals on our candidate list when we have enough scientific information to eventually propose them for listing as threatened or endangered. By considering these species early in your planning process you may be able to avoid the problems that could develop if one of these candidates was listed before the end of your project.

Species of Concern

The Sacramento Fish & Wildlife Office no longer maintains a list of species of concern. However, various other agencies and organizations maintain lists of at-risk species. These lists provide essential information for land management planning and conservation efforts. [More info](#)

Wetlands

If your project will impact wetlands, riparian habitat, or other jurisdictional waters as defined by section 404 of the Clean Water Act and/or section 10 of the Rivers and Harbors Act, you will need to obtain a permit from the U.S. Army Corps of Engineers. Impacts to wetland habitats require site specific mitigation and monitoring. For questions regarding wetlands, please contact Mark Littlefield of this office at (916) 414-6580.

Updates

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be September 07, 2008.

Appendix C

List of Vascular Plants Identified April 14, 2008,
Golden Girl Mine Project BSA, Nevada County, CA

UPLAND AREAS

Scientific Name

Common Name

<i>Arbutus menziesii</i>	Pacific madrone
<i>Arctostaphylos viscida</i>	White leaf manzanita
<i>Calocedrus decurrens</i>	Incense cedar
<i>Ceanothus cuneatus</i> var. <i>cuneatus</i>	Buck brush
<i>Chamaebatia foliolosa</i>	Mountain misery
<i>Cornus nuttallii</i>	Mountain dogwood
<i>Cytisus scoparius</i>	Scotch broom
<i>Iris</i> sp.	Iris
<i>Lotus micranthus</i>	Small flowered lotus
<i>Lotus purshianus</i>	Spanish lotus
<i>Lupinus nanus</i> var. <i>latifolius</i>	Sky lupine
<i>Pinus ponderosa</i>	Ponderosa pine
<i>Potentilla</i> sp.	Cinquefoil
<i>Pseudotsuga menziesii</i> var. <i>menziesii</i>	Douglas fir
<i>Quercus berberidifolia</i>	Scrub oak
<i>Quercus chrysolepis</i> var. <i>chrysolepis</i>	Canyon live oak
<i>Quercus kelloggii</i>	Black oak
<i>Symphoricarpos albus</i> var. <i>laevigatus</i>	Common snowberry
<i>Trifolium</i> sp.	Clover

INTERMITTENT DRAINAGES/SLUICE TUNNEL AREAS

<u>Scientific Name</u>	<u>Common Name</u>
<i>Agoseris heterophylla</i>	Annual agoseris
<i>Alnus rhombifolia</i>	White alder
<i>Bromus hordeaceus</i>	Soft chess
<i>Callitriche heterophylla</i>	Water starwort
<i>Cardamine oligosperma</i>	Western bittercress
<i>Crassula aquatica</i>	Water pygmyweed
<i>Dianthus armeria</i> ssp. <i>armeria</i>	Deptford pink
<i>Dodecatheon</i> sp.	Shooting star
<i>Erodium cicutarium</i>	Red-stemmed filaree
<i>Erythronium</i> sp.	Fawn lily
<i>Glyceria occidentalis</i>	Western manna grass
<i>Hordeum murinum</i> ssp. <i>leporinum</i>	Hare barley
<i>Hypericum perforatum</i>	Klamath weed
<i>Hypochaeris radicata</i>	Rough cat's ear
<i>Juncus effusus</i> var. <i>exiguus</i>	Short rush
<i>Juncus patens</i>	Spreading rush
<i>Juncus xiphioides</i>	Iris-leaved rush
<i>Lotus micranthus</i>	Small flowered lotus
<i>Lythrum portula</i>	Water purslane
<i>Montia fontana</i>	Water montia
<i>Muhlenbergia rigens</i>	Deer grass
<i>Plagiobothrys bracteatus</i>	Bracted popcorn flower
<i>Plantago major</i>	Common plantain
<i>Poa annua</i>	Annual bluegrass
<i>Ranunculus aquatilis</i>	Water buttercup
<i>Rorippa curvisiliqua</i> var. <i>occidentalis</i>	Western yellowcress
<i>Rumex acetosella</i>	Sheep sorrel
<i>Rumex crispus</i>	Curly dock

Salix laevigata

Salix lasiolepis var. *lasiolepis*

Selaginella hansenii

Trifolium subterraneum

Vulpia bromoides

Red willow

Arroyo willow

Hansen's spike moss

Subterranean clover

Six week fescue