Habitat for Humanity Heritage Oaks Phase 2 Project

Biological Resources Inventory

Prepared for:
Lorraine Larsen
Nevada County Habitat for Humanity
263 South Church Street Suite 240
Grass Valley, CA 95945

Prepared by:
Greg Matuzak
Biological Resources Consultant
627 West Broad Street
Nevada City, CA 95959
Email: gmatuzak@gmail.com

June 2019

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1.0 INTRODUCTION

Greg Matuzak, a Wildlife Biologist, conducted a reconnaissance-level biological resources survey and required background research related to biological resources to develop this Biological Resources Inventory. In addition, potential California Department of Fish and Wildlife (CDFW) and United States Army Corps of Engineers (Corps) jurisdiction was assessed within the Habitat for Humanity Heritage Oaks Phase 2 Project (Project) located within the City of Grass Valley in Nevada County, California (APN: 29-280-16). The proposed Project is the second phase for the development of Habitat for Humanity residential units along Joyce Drive given the first phase has recently been completed along the northern side of Joyce Drive.

The Project area covered under this Biological Resources Inventory is located along Joyce Drive to the south of downtown Grass Valley in Nevada County. It is located on the southern side Joyce Drive west off Whiting Street (see Appendix A for Project Vicinity and Project Location Figures). The surrounding area includes residential and commercial developments and is bordered by State Hwy 49 (SR 49) to the west. The Project area does not contain any previously permitted residences; however, the Project area does contain several sewer and other City of Grass Valley dedicated easements. The Project Tentative Map (dated May 2019) shows the proposed Project area with a total size of 3.74 acres.

There are currently two entrances into the Project area along Joyce Drive, one of which is paved for access to existing sewer related infrastructure within the northwestern area of the Project area. The other entrance is located in the northeastern area of the Project area and is mostly dirt and partially graveled off of Joyce Drive. The proposed development within the Project area will include several Habitat for Humanity residential units along with related infrastructure for the residential development. See the attached photo log (Appendix B) for photos documenting existing conditions within the Project area. The proposed Project per the Tentative Map (dated May 2019) will include 14 residential lots ranging between 2,683 and 4,772 square feet and a 4,165 square foot parking lot (Lot D on Tentative Map).

The Project area is located at approximately 2,4000 feet above Mean Sea Level (MSL). The Project area is relatively flat in the central and eastern sections with gentle to medium slopes towards the western portions of the Project area related to the Little Wolf Creek drainage and associated floodplain located in that area (see attached Project Location Figure in Appendix A as well as the). Little Wolf Creek is a seasonal creek within the Project area. In general, the Project area slopes gently towards the western area towards Little Wolf Creek. There is a 40-foot wide drainage and access easement along Little Wolf Creek through the Project area. Along the western edge of the Project area, where Little Wolf Creek runs from a southeast towards a northwest

direction, it crosses under SR 49 through a large culvert. In addition, a small, intermittent drainage enters the Project area through a culvert under Joyce Drive adjacent to the paved entrance to the northwestern area of the Project area. The small, intermittent drainage contains mostly thick blackberry bushes and some large willow trees before entering Little Wolf Creek (see attached Photo Log in Appendix B). The small, intermittent drainage is not identified as a blue line stream feature on the USGS Topographic mapping covering the Project area and it is not identified within the National Wetland Inventory (NWI) mapping covering the Project area either. However, Habitat for Humanity proposes a 10-foot easement along the intermittent drainage which will be offered for dedication to the City of Grass Valley. Little Wolf Creek is lined with riparian vegetation and several large willow, alder, and cottonwood trees.

The Project area is surrounded by development, mostly residential and commercial, with City of Grass Valley streets and infrastructure, as well as SR 49 along the western edge of the Project area. The Project area is mostly disturbed in the central, eastern, and northwestern sections where development within the Project area is proposed. A majority of the Project area proposed for development appears to be a mix of native soils and fill material, most likely brought from off site. The eastern edge of the Project area contains thick blackberry bushes; however, no drainage channel or a predominance of wetland plant species were found along the eastern edge of the Project area. A culvert located within the southeastern section of the Project area adjacent to a small path that enters the Project area appears to drain runoff from the adjacent commercial developments to the south and east. A small drainage from runoff from the culvert occurs along the southern edge of the Project area boundary, which has a predominance of blackberry bushes and a large willow tree. Given the drainage does not contain a defined bed and bank all the way to the connection with Little Wolf Creek and its associated floodplain to the west, the small drainage along the southern edge of the Project area would most likely not be subject to local, state, and federal permitting if any dredge or fill material was placed within it during Project area development. The Project area does not contain any protected oak or other trees to be removed that would be subject to City of Grass Valley policies.

The Project area is covered mostly by the following habitat types: Ponderosa Pine, Annual Grassland, and Foothill Riparian habitats. Foothill Riparian habitats are associated with Little Wolf Creek as well as the intermittent drainage along the southern edge of the Project area, and a small, intermittent drainage that flows along a fenced, narrow channel within the Habitat for Humanity existing development along the northern side of Joyce Drive before crossing Joyce Drive and entering the Project area within the northwestern section of the Project area. For the purposes of this Biological Resources Inventory, potential impacts to sensitive species, streams and wetlands, and protected oak trees that would be subject to local land use and other regulatory permit requirements are evaluated based on the presence of such sensitive resources

within the Project area and the potential to impact such sensitive resources based on the Project layout and design. If avoidance of such sensitive biological resources is infeasible as part of Project design, then minimization of impacts to sensitive biological resources such as drainage, streams, wetlands, and special-status species would require mitigation measures to be implemented (see Section 5.0 of this Biological Resources Inventory).

The purpose of this Biological Resources Inventory is to identify the location and extent of sensitive biological resources within the Project area, including special-status plant and wildlife species, and the presence of drainage/stream/wetland features that could potentially meet the Corps criteria as a "waters of the United States," including wetlands, pursuant to Section 404 of the Clean Water Act (CWA). In addition, this Biological Resources Inventory includes an assessment streams within the Project area that could be under the jurisdiction of CDFW Code Section 1600 *et. seq*.

This Biological Resources Inventory also evaluates the City of Grass Valley General Plan and Development Code requirements for any parcel(s) subject to land use changes. Grass Valley Development Code requires a Resource Management Plan for encroachment into a 30-foot stream setback to identify potential impacts to a stream due to any development within the setback. The Resource Management Plan identifies minimization and mitigation measures to implement to limit the potential impact to the stream in the case that development is approved within the 30-foot stream setback. This includes Best Management Practices (BMPs), including erosion control and sedimentation measures to avoid water quality impacts. The proposed Project will be located more than 30-feet from Little Wolf Creek; however, Lot 12 (see Tentative Map dated May 2019) encroaches to within 10 feet of the edge of the drainage area. Therefore, this Biological Resources Inventory also include a Resource Management Plan to protect the small, intermittent drainage due to the requested variance to develop up to 10 feet from the edge of the drainage.

2.0 REGULATORY OVERVIEW AND DEFINITIONS

Federal Regulations

Section 404 of the Clean Water Act

The United States Army Corps of Engineers (Corps) and the Environmental Protection Agency (EPA) regulate the discharge of dredge or fill material into waters of the U.S. under Section 404 of the Clean Water Act (CWA). Waters of the United States include wetlands and lakes, rivers, streams, and their tributaries. Wetlands are defined for regulatory purposes as areas inundated or saturated by surface or ground water 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 solid conditions (33 CFR 328.3, 40 CFR 230.3). Project proponents must obtain a permit from the Corps for all discharges of fill material into waters of the U.S., including wetlands, before proceeding with a proposed action. The Project area contains Little Wolf Creek and a small intermittent drainage that would be subject to regulation under the CWA if dredge or fill material are placed below the ordinary high water mark of any stream or within any jurisdictional wetlands.

Section 401 of the Clean Water Act

CWA Section 401 compliance is required for any project requiring a federal action (i.e. Corps permit or federal funding) with construction that could have an impact to surface water quality. The Project area contains Little Wolf Creek and a small intermittent drainage that would be subject to regulation under the CWA if dredge or fill material are placed below the ordinary high water mark of any stream or within any jurisdictional wetlands.

Endangered Species Act of 1973

For the proposed Project area, consultation with the USFWS would be necessary if a proposed action may affect suitable habitat for a federally listed species. This consultation would proceed under Section 7 of the Endangered Species Act (ESA) if a federal action is part of the proposed action or through Section 10 of the ESA if no such nexus were available (USFWS, 1973). There are two federally protected plant species under the ESA that have been previously documented within 3 miles of the Project area (CDFW 2019). Stebbins' morning glory (*Calystegia stebbinsii*) and Pine Hill Flannelbush (*Fremontodendron decumbens*) are each ESA listed species as Endangered (USFWS 2019, CDFW 2019); however, the Project area does not contain suitable habitat for either federally protected species.

Migratory Bird Treaty Act of 1918 and Bald and Golden Eagle Protection Act

The Migratory Bird Treaty Act (MBTA) (16 USC Section 703-711) and the Bald and Golden Eagle Protection Act (BAGEPA) (16 USC Section 668) protect certain species of birds from direct "take" (i.e. harm or harassment as described above). The MBTA protects migrant bird species from take through setting hunting limits and seasons and protecting occupied nests and eggs (USFWS, 1918). BAGEPA prohibits the take or commerce of any part of the bald or golden eagles (USFWS, 1940). The USFWS administers both Acts and reviews actions that may affect species protected under each Act.

State Regulations

California Endangered Species Act

The California Department of Fish and Wildlife (CDFW) has jurisdiction over plant and wildlife species listed as threatened or endangered under section 2080 of the CDFW Code. The California Endangered Species Act (CESA) prohibits take of state-listed threatened and endangered species. The state Act differs from the federal Act in that it does not include habitat destruction in its definition of *take*. The CDFW defines *take* as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." The CDFW may authorize *take* under the CESA through Sections 2081 agreements. If the results of a biological survey indicate that a state-listed species would be affected by the project, the CDFW would issue an Agreement under Section 2081 of the CDFW Code and would establish a Memorandum of Understanding for the protection of state-listed species. CDFW maintains lists for Candidate-Endangered Species and Candidate-Threatened Species.

California black rail (*Laterallus jamaicensis coturniculis)* is listed as threatened under CESA and the Scadden Flat checkerbloom (*Sidalcea stipularis*) and Stebbins' morning glory (*Calystegia stebbinsii*) are both CESA listed species as Endangered and each of these species has been previously documented within 3 miles of the Project area. Pine Hill Flannelbush (*Fremontodendron decumbens*) is listed as a Rare species by CDFW and has been previously documented within 3 miles of the Project area. No other candidate species or CESA protected species has been documented within 3 miles of the Project area (CDFW 2019); however, the Project area does not contain suitable habitat for any CESA protected species.

California Special Species of Concern, Fully Protected, and Special Status Species

California designates Species of Special Concern (SSC) as species of limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational or educational values. These species do not have the same legal protection as listed species but may be added to official lists in the future (CDFW 2014). For example, the

coast horned lizard (*Phrynosoma blainvillii*), foothill yellow-legged frog (*Rana boylii*), and western pond turtle (*Actinemys marmorata*) are designated as SSC and the coast horned lizard is evaluated as part of this Biological Resources Inventory.

In the 1960's California created a designation to provide additional protection to rare species. This designation remains today and is referred to as "Fully Protected" species, and those listed "may not be taken or possessed at any time" (CDFW 2014c). The California black rail (*Laterallus jamaicensis coturniculus*) has been known to occur in Nevada County and has been identified within 3 miles of the Project area and is designated as Fully Protected by the state of California.

California special status species are identified by the California Natural Diversity Database (CNDDB) and includes those species considered to be of greatest conservation need by the CDFW (CDFG 2011).

Streambed Alteration Agreements: CDFG Code Section 1600 et seq.

CDFW has jurisdictional authority over wetland resources associated with rivers, streams, and lakes under Sections 1600–1616. CDFW has the authority to regulate all work under the jurisdiction of the State of California that would substantially divert, obstruct, or change the natural flow of a river, stream, or lake; substantially change the bed, channel, or bank of a river, stream, or lake; or use material from a streambed.

In practice, CDFW marks its jurisdictional limit at the top of the stream or lake bank, or the outer edge of the riparian vegetation (where present) and extends its jurisdiction to the edge of the 100-year floodplain.

Porter-Cologne Water Quality Control Act & Section 1601 – Section 1607 of CDFG Code

These acts and codes pertain to projects with potential impacts to water quality or waterways. The proposed Project site contains waters of the State as defined by the State Water Resources Board (State Board 2014), including the two intermittent streams within the Project area and their associated wetlands.

California Department of Fish and Game Code Sections 3503, 3503.5, and 3800: Nesting Migratory Bird and Raptors

Sections 3503, 3503.5, and 3800 of the CDFG Code prohibit the take, possession, or destruction of birds, their nests or eggs. Implementation of the take provisions requires that project-related disturbance within active nesting territories be reduced or eliminated during critical phases of the nesting cycle (approximately March 1 – August 31). Disturbance that causes nest abandonment and/or loss of reproductive effort (e.g. killing or abandonment of eggs or young), or the loss of habitat upon which birds are dependent, is considered "taking", and is potentially punishable by fines and/or

imprisonment (LCC 2013). Such *taking* would also violate federal law protecting migratory birds (e.g. MBTA above).

California Environmental Quality Act Guidelines Section 15380

California Environmental Quality Act (CEQA) Guidelines section 15380(b) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain specific criteria. This section was included in the guidelines to deal primarily with situations in which a public agency is reviewing a project that may have a significant effect on, for example a "candidate species" that has not yet been listed by the USFWS or CDFW. CEQA, therefore, enables an agency to protect a species from significant project impacts until the respective government agencies have had an opportunity to list the species as protected, if warranted (CNRA 2012).

Plants appearing on the California Native Plant Society (CNPS) California Rare Plant Rank (CRPR) are considered to meet CEQA's Section 15380 criteria. Ranks include: 1A) plants presumed extirpated in California and either rare or extinct elsewhere, 1B) plant rare, threatened, or endangered in California and elsewhere, 2A) plants presumed extirpated in California, but more common elsewhere, and 2B) plants rare, threatened, or endangered in California, but more common elsewhere. Impacts to these species would therefore be considered "significant" requiring mitigation.

State Oak Woodland Regulations

State laws that regulate protection of oak woodlands include Professional Forester's Law (PFL) and CEQA according to Public Resources Code Section 21083.4. Oak woodlands are defined as areas having 10% oak canopy cover or greater. "Oaks" are defined in Public Resources Code Section 21083.4 as a native tree species in the genus *Quercus*, that is 5 inches diameter at breast height (DBH) or greater. The Oak Woodlands Conservation Act (SB 1334) provides funding for the conservation and protection of oak woodlands in California. Oak trees and oak woodland habitats are protected under both the State and the City of Grass Valley Tree Preservation and Protection Ordinance as discussed below.

City of Grass Valley Tree Ordinance

The City of Grass Valley acknowledges the importance of trees to the community's health, safety, welfare, and tranquility. Trees increase property values, provide visual continuity, provide shade and cooling, decrease wind velocities, control erosion, conserve energy, reduce stormwater runoff, filter airborne pollutants, reduce noise, provide privacy, provide habitat and food value, and release oxygen. In December 2005, the City Council adopted the Tree Ordinance, Chapter 12.36 of the

Municipal Code, to ensure that the community trees would be prudently protected and managed so as to ensure these multiple civic benefits.

- What Types of Trees Are Protected Under This Ordinance?

- Any woody plant having a trunk ten (10) caliper inches or larger in Diameter at Breast Height (DBH) (54" above ground height) and as further defined within the definitions section of the Tree Preservation and Protection Ordinance, Chapter 12.36.

City of Grass Valley Development Code 17.50 Creek and Riparian Resource Protection

The City of Grass Valley Development Code 17.50 for Creek and Riparian Resource Protection states that a Resource Management Plan must be prepared for encroachment within the 30-foot stream setback, "and shall include measures which will minimize impacts to the watercourse and enhance runoff filtration." The measure should include: enhancement and/or restoration of the riparian vegetation area; removal of non-native vegetation; decompaction of soils and/or incorporation of organic material to improve runoff filtration; incorporation of bioswales in drainage plans to filter parking areas and other impervious surfaces; and, incorporation of other Best Management Practices (BMP's) which provide long-term protection of the water quality.

City of Grass Valley 2020 General Plan

The Conservation and Open Space Elements were combined in the 2020 Grass Valley General Plan Update. Both are mandatory General Plan Elements under State law. The Conservation/Open Space Element addresses those aspects of conservation and open space determined most important to Grass Valley. It supplements, but does not replace, the Mineral Resources Element adopted by the City in 1993.

Conservation/Open Space Goals and Objectives

1-COSG Provide a balance between development and the natural environment, protecting and properly utilizing Grass Valley's sensitive environmental areas/features, natural resources and open space lands.

- 1-COSO Inventory of sensitive environmental areas and features.
- 2-COSO Multi-purpose open space lands, accommodating the needs and requirements of open space/conservation, habitat, recreation, and aesthetics.
- 3-COSO Protection of rare and endangered animals and plants.
- 4-COSO Reduction of urban development impacts on native vegetation, wildlife and topography.
- 5-COSO Encouragement of wildlife through habitat protection.

6-COSO Assurance of appropriate resource conservation and environmental protection measures as prerequisites to development.

2-COSG Protect, enhance and restore hydrologic features, including stream corridors, flood plains, wetlands, and riparian zones.

7-COSO Development of an extensive trail network providing recreational and educational opportunities.

8-COSO Minimize interference with the natural functions of flood plains and naturally flood-prone areas.

3-COSG Ensure the protection of Grass Valley's trees and forested areas.

9-COSO Identification of heritage trees for special recognition and protection.

10-COSO Identification of significant groves and groupings of trees for permanent open space designation.

4-COSG Protect and enhance town entryways, visual corridors and important viewsheds including ridgelines.

11-COSO Identification of particular corridors and views requiring protection or enhancement.

12-COSO Identification of specific aesthetic considerations important to the protection/enhancement of particular corridors and views.

5-COSG Maintain close relationships with public agencies and private organizations regarding conservation, open space and environmental protection.

13-COSO Ongoing communication of information, plans, and concepts

14-COSO Creation of joint efforts and shared funding responsibilities.

6-COSG Assure compliance with and understanding of air and water quality regulations and standards.

15-COSO Protection of ground- and surface water quality.

16-COSO Inclusion of air and water quality considerations in land use decisions rendered by the Planning Commission and City Council.

Conservation/Open Space Policies

1-COSP Continue to identify mineral resources and to develop policies addressing their protection from competing land uses, minimizing impacts on mining activities, in compliance with State law.

2-COSP	Establish an active program of land/development rights acquisition in order to protect sensitive environmental areas and features.
3-COSP	Encourage clustering, density averaging, and other techniques in larger-scale new developments, as means of preserving open space and natural systems.
4-COSP	Establish standards for inclusion and management of permanent open space in new developments.
5-COSP	Carefully regulate development on steep slopes.
6-COSP	Prevent excessive alteration of the natural topography.
7-COSP	Recognize and reinforce Grass Valley's public park system.
8-COSP	Study the potential for inter-jurisdictional transfer of development rights.
9-COSP	Carefully regulate development for location in flood hazard areas.
10-COSP	Establish a city trail network program for friendly acquisition, development and administration of a natural trails system.
11-COSP	Return to open space, areas within which flooding poses a clear danger to life and property.
12-COSP	Enhance the City's tree ordinance addressing tree maintenance and protection both within new developments and elsewhere in the City.
13-COSP	Assist property owners wishing to preserve and protect heritage trees and significant groves.
14-COSP	Establish a program to identify and administer a viewshed/view corridor protection program.
15-COSP	Assign responsibility for the viewshed/view corridor program.
16-COSP	Incorporate viewshed/view corridor standards into the Design Element of the General Plan, City Design Guidelines and other appropriate developmental documents.
17-COSP	Utilize the services and expertise of organizations involved in resource conservation and open space protection.
18-COSP	Develop and achieve agreement with the County of Nevada on a strategy for conservation and open space protection within the Grass Valley Planning Area and City's Sphere of Influence.
19-COSP	Enlist the interest and efforts of appropriate state and federal agencies and private foundations regarding conservation and open space protection.
20-COSP	Establish, in cooperation with Nevada County, an urban limit line beyond which urban land uses, densities, facilities and services will not extend.
21-COSP	Continue to implement water quality improvement plans, including storm water separation and sewage treatment plant expansion.
22-COSP	Implement circulation/transportation measures designed to reduce reliance on the automobile.
23-COSP	Respond appropriately to state and federal air and water quality policies and policy changes, understanding the implications of regulations and standards, and maintaining a continuing public education program.

3.0 METHODS

In order to evaluate the Project area for the presence of any sensitive biological resources, baseline information from databases and reporting for similar projects in the City of Grass Valley and Nevada County was collected and reviewed prior to conducting reconnaissance-level field biological surveys within the Project area. The database searches, background research, and habitat level field surveys characterized the baseline conditions of the Project area. Based on the baseline conditions of the Project area, an assessment was implemented to determine if any special status plant or wildlife species have the potential to use the Project area at any time during their life cycle. The baseline conditions identified the presence of any sensitive habitat or communities, if they were identified within the Project area.

Sensitive Biological Resources

The following information was used to identify potential special status plant and wildlife species within the Project region that could be found to use the Project area:

- California Department of Fish and Wildlife's California Natural Diversity Database records search of a 3-mile buffer around the Project area (CDFW, 2019);
- California Native Plant Society's online Inventory of Rare and Endangered Plants of California for the Project area 7.5-minute Grass Valley USGS quadrangle and Nevada County (CNPS, 2019);
- The U.S. Fish and Wildlife Service Information, Planning, and Consultation System (IPaC) for endangered, threatened, and proposed listed species for the Project area (USFWS, 2019);
- National Wetland Inventory (NWI, 2019);
- United States Department of Agriculture (USDA) Soils Mapper (USDA, 2019);
- Natural Resources Conservation Service (NRCS) Hydric Soils List for Nevada County (NRCS, 2019); and
- City of Grass Valley 2020 General Plan (Quad-Knopf, 1999).

In addition, the following reporting was previously developed for the Project area and was reviewed as part of the background research for this Biological Inventory:

- Fatal Flaw Project Review Technical Memorandum for Biological Resources for a Potential Habitat for Humanity Parcel in Grass Valley, Nevada County (Matuzak, 2018)

Reconnaissance-level Biological Resources Field Surveys

A reconnaissance-level biological field survey was conducted on foot of the entire western Project area by Greg Matuzak, Wildlife Biologist on April 3rd, 2018 and May 31st, 2019. The purpose of the site surveys was to identify any sensitive habitat and vegetation types (intermittent streams, riparian vegetation, wetlands, etc.) within the Project area and to determine the potential of any special-status plant and wildlife species identified within the desktop analysis and background research to occur within the Project area. A photo log of the Project area and a list of plant and wildlife species observed during the field surveys was compiled (see Appendix B and Appendix C). A figure documenting the CNDDB database results within 3 miles of the Project area is located in Appendix D. A USDA Soils Map of the Project area is attached in Appendix E and a National Wetland Inventory Map of the Project area is attached in Appendix F. An aquatic resources delineation was not conducted as part of the development of this Biological Resources Inventory and therefore, mapping of potential "waters of the U.S.," including wetlands and "waters of the State of California" was not included as part of this reporting.

4.0 RESULTS

Environmental Setting

The Project area is located at approximately 2,4000 feet above Mean Sea Level (MSL). The Project area is relatively flat in the central and eastern sections with gentle to medium slopes towards the western portions of the Project area related to the Little Wolf Creek drainage and associated floodplain located in that area. Along the western edge of the Project area, where Little Wolf Creek runs from a southeast towards a northwest direction, it crosses under SR 49 through a large culvert. In addition, a small drainage enters the Project area through a culvert under Joyce Drive adjacent to the paved entrance to the northwestern area of the Project area and a small drainage occurs along the southern boundary of the Project area. Little Wolf Creek is lined with riparian vegetation and several large willow, alder, and cottonwood trees. The small, intermittent drainages also contains some riparian vegetation, including willow trees and dense Himalayan blackberry shrubs.

Plant Communities

Plant communities have been classified based on the California Wildlife Habitat Relationships System developed by CDFW. The CDFW also manages the California Natural Diversity Data Base (CNDDB), which is a database inventory of the locations of rare and endangered plants, wildlife, and natural communities in California. A list of plants and wildlife documented during the field survey are attached in Appendix C to this Biological Resources Inventory.

The dominant plant communities are discussed below.

Ponderosa Pine

The Ponderosa Pine habitats within the Project area is dominated by ponderosa pine (*Pinus ponderosa*), include incense cedar (*Calocedrus decurrens*) and California black oak (*Quercus kelloggii*). This habitat type is dominant within the southwestern and northwestern sections of the Project area.

The Project area does not contain any heritage trees as designated by the City of Grass Valley. However, the Project area would be subject to the City of Grass Valley Tree Ordinance and a Tree Removal Permit would be required prior to the removal of any tree that is 10 inches or greater DBH. The Ponderosa Pine habitat type contains many trees that would be subject to a Tree Removal Permit by the City of Grass Valley if they are to be removed given they are 10 inches or greater DBH.

Annual Grasslands

Annual grassland species occur as the dominant habitat type in the eastern and wouthern sections of the Project area. This habitat type is dominated by wild oats (*Avena fatua*), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), medusa head (*Taeniatherum caput medusae*), and filaree (*Erodium cicutarium*). Orchard grass (*Dactylis glomerata*), wild rye (*Elymus glaucus*), and tall fescue (*Festuca arundinacea*), among other native and non-native grasses, were also identified in these areas of the Project area. Non-native grasslands are known to out-compete native grasses and forbs throughout the valley and foothill regions.

Riparian and Wetland Vegetation

Little Wolf Creek and the small, intermittent drainage within the Project area contain associated Foothill Riparian habitats. This habitat type within the Project area is dominated by white alders (*Alnus rhombifolia*) and willows (*Salix laevigata* and *S. lasiolepis*) in addition to Himalayan blackberry (*Rubus armeniacus*), Baltic rush (*Juncus balticus*), and iris-leaved rush (*Juncus xiphioides*). This habitat is located along the western edge of the Project area where Little Wolf Creek flows and along the edges of the small, intermittent drainage that enters the northwestern portion of the Project area from the north. The southern Project area border also contains a small, intermittent drainage that connects to Little Wolf Creek and it contains a narrow band of riparian vegetation, including a large willow tree and a dense cluster of Himalayan blackberry bushes along both sides of the drainage.

In addition, seasonal wetlands associated with the Little Wolf Creek floodplain located in the western section of the Project area contains a diverse palette of native herbaceous wetland species, such as clustered field sedge (*Carex praegracilis*), umbrella sedge (*Cyperus eragrostis*), Baltic rush (*Juncus balticus*), and iris-leaved rush (*Juncus xiphioides*). The obligate wetland species, cattail (*Typha* sp.) is also present in the topographic low areas within the floodplain as well as adjacent to Little Wolf Creek. A setback from the Little Wolf Creek floodplain is proposed; therefore, the riparian and wetland habitats identified within the western section of the Project area would be located within the setback area and would not be impacted by the proposed Project.

SPECIAL STATUS SPECIES

Special status species were considered for this Biological Inventory is based on a current review of the California Natural Diversity Data Base (CNDDB) and database information provided by the United States Fish and Wildlife Service (USFWS) for the Project area. The Project area does not contain any Designated Critical Habitat (DCH) for any federally listed species projected by the USFWS. The database searches did reveal ten species, California black rail, Scadden Flat checkerbloom, Stebbins' morning glory, Pine Hill flannelbush, dubious pea, finger rush, chaparral sedge, brownish beaked-rush, coast horned lizard, and the Twondesnd's big-eared bat that have been previously identified within 3 miles of the Project area. None of these species were observed during field surveys. In addition, western pond turtle, foothill yellow-legged frog, and California red-legged frog are also discussed below given the presence of Little Wolf Creek and a small intermittent drainage within the Project area.

Scadden Flat Checkerbloom (*Sidalcea stipularis*) – CA State Endangered and California Native Plant Society List 1B.1

Scadden Flat checkerbloom inhabits marshes and swamps. It is found in wet montane marshes fed by springs, normally between 700 and 740 meters above MSL. This species has been identified within 3 miles of the Project area. The species was not identified during field surveys and suitable habitat for this species does not occur within the Project area.

Stebbins' Morning Glory (*Calystegia stebbinsii*) – CA State and Federally Endangered and California Native Plant Society List 1B.1

Stebbins' morning glory inhabits chaparral and cismontane woodland. It is found in red clay soils of the pine hill formation on gabbro or serpentine soils in open areas, normally between 180 and 725 meters above MSL. This species has been identified within 3 miles of the Project area. However, the species was not identified during field surveys and suitable habitat for this species does not occur within the Project area.

Pine Hill Flannelbush (*Fremontodendron decumbens*) – Federally Endangered and CA State Rare and California Native Plant Society List 1B.2

Pine Hill flannelbush inhabits rocky ridges on gabbro and serpentine soils within chaparral and cismontane woodlands. This species is endemic to these soil types and is normally documented between 425 and 760 meters above MSL. This species has been identified within 3 miles of the Project area. However, the species was not identified during field surveys and suitable habitat for this species does not occur within the Project area.

Dubious Pea (*Lathyrus sulphureus var. argillaceus*) – California Native Plant Society List 3

Dubious pea inhabits lower and upper montane coniferous forest and cismontane woodlands, normally between 150 and 930 meters above MSL. This species has been identified within 3 miles of the Project area. Suitable habitat for this species does occur within the forested western and southwestern sections of the Project area; however, field surveys were conducted during the blooming season for the species in 2019 making their positive identification possible if the species were to occur within the Project area and the species was not identified within the Project area on May 31st, 2019. Therefore, it is assumed that the species is not located within the Project area.

Finger Rush (*Juncus digitatus*) – California Native Plant Society List 1B.1

Finger rush inhabits open chaparral habitat surrounded by mixed oak/conifer woodland on low gradient, north-facing, and vernally moist slopes. This species also associates with sandy clay loam soil within substrates underlain by granitic bedrock. This species has been identified within 3 miles of the Project area to the northeast. However, the species was not identified during field surveys and suitable habitat for this species does not occur within the Project area.

Chaparral Sedge (*Carex xerophila*) – California Native Plant Society List 1B.2

Chaparral sedge inhabits openings within chaparral habitat, cismontane woodland, and lower montane coniferous forests. This species is found in areas containing serpentine and gabbroic microhabitats between 250 and 770 meters above MSL. This species has been identified within 3 miles of the Project area to the west. However, the species was not identified during field surveys and suitable habitat for this species, including rocky gabbro soils, does not occur within the Project area.

Brownish Beaked-Rush (*Rhynchospora capitellata*) – California Native Plant Society List 2B.2

Brownish beaked-rush inhabits meadows and seeps, marshes and swamps, and it is found in upper and lower montane coniferous forests, normally between 45 and 2000 meters above MSL. This species is normally identified on mesic sites and has been identified within 3 miles of the Project area in a marshy area along the northwest corner of the Nevada County Fairgrounds along Hwy 20. The species was not identified during field surveys and suitable habitat for this species does not occur within the Project area.

Townsend's Big-eared Bat (*Corynorhinus townsendii*) – CA State Species of Concern

This species inhabits lower montane coniferous and mixed conifer forest habitats where abandoned buildings and structures occur for roosting. This species has been identified within 3 miles of the Project area. However, the species was not identified

during field surveys and suitable habitat for this species does not occur within the Project area given there are no abandoned structures that have suitable roosting sites for this species.

California Black Rail (*Laterallus jamaicensis coturiculus*) – CA State Threatened

California black rail inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. The species requires water depths of about 1 inch that does not fluctuate during the year and dense vegetation for nesting habitat. This species has been identified within 3 miles of the Project area. The species was not identified during field surveys and suitable habitat for this species does not occur within the Project area.

Coast horned lizard (*Phrynosoma blainvillii*) – CA State Species of Concern

The coast horned lizard occurs in open sandy areas, scattered low bushes, chaparral, manzanita, and oak woodland habitats. It is found in the Sierra Nevada foothills from Butte County to Kern County and throughout the central and southern California coast. Coast horned lizards forage on the ground in open areas, usually between shrubs and often near ant nests. The species relies on camouflage for protections. Predators and extreme heat are avoided by burrowing into loose soil. Periods of inactivity and winter hibernation are spent burrowed in the soil under surface objects such as logs or rocks, in mammal burrows, or in crevices (Zeiner et al. 2000). They inhabit mostly open country, especially sandy areas, washes, flood plains and wind-blown deposits in a wide variety of habitats and can be found at elevations up to 8,000 feet (2,438 meters) (CaliforniaHerps, 2014).

There is minimal potential suitable habitat within the Project area for the coast horned lizard except for the open, gravelly areas located in the central section of the Project area. The species has been previously documented within 3 miles of the Project area. No coast horned lizards were observed during the April 2018 and May 2019 surveys of the Project area and given the gravelly soils within the central portion of the Project area is mostly fill material, it is unlikely that the species would occur within the Project area.

Western Pond Turtle (*Emys marmorata*) – CA State Species of Concern

Western pond turtles associate with permanent ponds, lakes, streams, irrigation ditches, and permanent pools along intermittent streams. They are most commonly associated with permanent or nearly permanent water in a wide variety of habitats. This species requires basking sites such as partial submerged logs, rocks, mats of floating vegetation, or open mud banks. During the spring or early summer, females move overland for up to 100 m (325 ft) to find suitable sites for egg laying. This species has not been identified within 3 miles of the Project area. The species was not identified during

field surveys and suitable habitat for this species does not occur within the Project area given the lack of a permanent water source. Little Wolf Creek and the small drainage within the Project area are bot intermittent streams and lack the required permanent pools for the species. Therefore, the potential for the species to occur within the Project area is considered very low.

Foothill Yellow-legged Frog (*Rana boylii*) – Candidate for Listing under the CA ESA

Foothill yellow-legged frogs inhabit partly shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. The species requires at least some cobble-sized substrate for egg laying. The species requires at least 15 weeks to attain metamorphosis. This species has not been identified within 3 miles of the Project area. The species was not identified during field surveys and suitable habitat for this species does not occur within the Project area given the lack of required habitat and low flows of water within the intermittent streams within the Project area.

CA Red-legged Frog (*Rana aurora draytonii*) – Federal Threatened and CA State Species of Concern

CA red-legged frog (CRLF) is known in Nevada County in the North Bloomfield USFS Quadrangle within the Rock Creek watershed. CRLF has not been identified within 3 miles of the Project area. The species was not identified during field surveys and suitable reproductive habitat for this species does not occur within the Project area. If suitable breeding locations are located within 1.25 miles of the Project area and connected by barrier-free dispersal habitat that is at least 300 feet in width, then suitable dispersal habitat could be located within the Project area; however, since CRLF have not been identified in the Grass Valley USGS Quadrangle or the watershed associated with the Project area, the potential for this species to occur is extremely low and is considered absent from the Project area.

Nesting raptors and other migratory birds species - Protected under MBTA, Protected under CA State DFG Code Sections 3503, 3503.5, and 3800

There is a low to moderate potential for nesting raptors and other nesting migratory bird species protected under the MBTA to occur within the Project area given the presence of the forested areas within the western portion of the Project area. The Project area represents potential habitat for bird species protected under the MBTA, such as ground nesting species like the spotted towhee (*Pipilo maculatus*) and dark-eyed junco (*Junco hyemalis*). Active and inactive nests within and adjacent to the proposed areas to be developed within the Project area were not identified during field surveys; however, given the presence of large trees within the western portion of the Project area and open grasslands within the central and eastern portions of the Project

area, there is a low to moderate potential for these species to nest within the Project area.

Critical Deer Habitat

Known migratory deer ranges outlined in the Nevada County General Plan was reviewed for deer migration corridors, critical range, and critical fawning areas. The Project area is not located in any known major deer corridors, known deer holding areas, or critical deer fawning area. Per the Migratory Deer Ranges Nevada County General Plan map, the Project area is located in an area of potential Resident Deer Herd (includes some areas of migratory deer winter range). The field survey did not record any observations of deer or deer trails while walking the Project area. The Project area does not contain any known major deer migration corridors, known deer holding areas, nor critical deer fawning areas.

5.0 CONCLUSION

The Project area is surrounded by development, mostly residential and commercial, with City of Grass Valley streets and infrastructure, as well as SR 49 along the western edge of the Project area. The Project area is mostly disturbed in the central, eastern, and northwestern sections where development is proposed. A majority of the Project area proposed for development appears to be a mix of native soils and fill material, most likely brought from off site. The eastern edge of the Project area contains areas of thick blackberry bushes; however, no drainage channel or a predominance of wetland plant species were found along the eastern edge of the Project area. A culvert located within the southeastern section of the Project area adjacent to a small path that enters the Project area appears to drain runoff from the adjacent commercial developments to the south and east. A small, intermittent drainage runs along the southern edge of the Project area boundary, which has a predominance of blackberry bushes and a large willow tree. Given the drainage along the southern Project area boundary connects with Little Wolf Creek and its associated floodplain to the west, it would most likely be subject to local, state, and federal permitting if any dredge or fill material was placed within it during site development. Little Wolf Creek and the small, intermittent drainage entering the northeastern section of the Project area would also be subject to such regulations.

The Project area is located within a developed and disturbed area of the City of Grass Valley and is adjacent to/nested within a largely developed area south of downtown Grass Valley. The Project area is located adjacent to and on the eastern side of SR 49. The Project area is bound by Joyce Drive and existing Habitat for Humanity residential development along the northern frontage area, SR 49 along the western area, and commercial development to the south and east of the Project area. Therefore, any development within the 3.74-acre Project area would have an overall very low potential to impact sensitive wildlife and plant resources given the low likelihood of such sensitive species to occur within the Project area. As stated above, the Project area does not contain suitable habitat for any state or federally listed endangered or threatened species. However, the Project area would be subject to the City of Grass Valley Tree Ordinance and a tree permit would be required for removal of any native tree that is 10 inches or greater DBH. Several native willow trees are located within the Project area and the large trees associated with Little Wolf Creek would be subject to a tree permit by the City of Grass Valley if they are to be removed given they are each 10 inches or greater DBH.

Little Wolf Creek is a tributary to Wolf Creek on the western side of SR 49. Wolf Creek connects with the Bear River downstream, which connects with the Feather River, San Francisco Bay, and the Pacific Ocean downstream. Therefore, Little Wolf Creek would be regulated under the CWA (federal regulation protecting streams and

wetlands) and by the State of California (protecting waters of the State of California, floodplains, and riparian habitat). It is assumed that Little Wolf Creek is a seasonal creek given its small width and low flow level during the field survey conducted during the winter. If direct dredge or fill impacts were proposed within the ordinary high water mark (OHWM) of Little Wolf Creek or the small, intermittent drainage within the Project area, state and federal permits would be required for such activities. Given the Little Wolf Creek is a seasonal stream and located within the City of Grass Valley, it would also be subject to Grass Valley Development Code, which requires a Resource Management Plan for encroachment into the 30-foot stream setback, "and shall include measures which will minimize impacts to the watercourse and enhance runoff filtration." Therefore, encroachment into the 30-foot stream setback would require the development of a Resource Management Plan in order to receive a variance to develop within the stream setback if approved by the City of Grass Valley. See the Resource Management Plan below for encroachment into the 30-foot setback to the small, intermittent drainage within the Project area.

Given the Project area does contain some larger trees (see Photo Log in Appendix C) and those trees contain suitable habitat for nesting raptors and MBTA protected nesting bird species, removal of such trees and blackberry bushes should be done outside the breeding season if possible to avoid potential impacts to such nesting species. The breeding season for most protected birds in the vicinity of the Project area is generally from March 1 to August 30. Vegetation clearing or tree removal outside of the breeding season for such bird species would not require the implementation of any avoidance, minimization, or mitigation measures. However, construction or development activities during the breeding season could disturb or remove occupied nests of migratory birds or raptors and could require the implementation of a pre-construction survey within 250 feet of the disturbance area within the Project area for nesting migratory birds and raptors prior to development. If any nesting raptors or migratory birds are identified during surveys, active nests should be avoided and a no-disturbance buffer should be established around the nesting site to avoid disturbance or destruction of the nest site until after the breeding season or after a wildlife biologist determines that the young have fledged. The extent of these buffers would be determined by a wildlife biologist and would depend on the special-status species present, the level of noise or construction disturbance, line of sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers. These factors should be analyzed to make an appropriate decision on buffer distances.

The Project area does not contain suitable aquatic habitat or upland areas immediately associated with aquatic habitat. Therefore, the Project area does not provide habitat for sensitive amphibians or other sensitive aquatic species. As a result, no impact would be expected to California red-legged frog, foothill yellow-legged

frog, western pond turtle, or CA black rail from developing the Project area. In addition, Little Wolf Creek and its floodplain within the Project area will be avoided so the proposed Project will have no impact on Little Wolf Creek and its associated riparian habitat and floodplain.

Given the developed and disturbed site conditions of the Project area, including the lack of soil and habitat types for special-status plant species previously recorded within 3 miles of the Project area, potential for any listed or other sensitive plant species to occur within the Project area is considered very low to nil. Marginal suitable habitat for the special-status plant species dubious pea occurs within the forested areas within the western section of the Project area; however, this species was not identified during May 2019 surveys and the entirety of the western section of the Project area will be avoided given the presence of Little Wolf Creek and its associated floodplain in that area. Known occurrences of special-status wildlife species have been documented within 3 miles of the Project area; however, the Project area does not contain suitable habitat for such species. No special-status wildlife species were documented within the Project area during April 2018 and May 2019 site surveys.

Resource Management Plan for Variance Into 30-Foot Setback of Drainages

It is assumed that the drainage running along the southern border of the Project area boundary (from adjacent runoff from the south and east) is not subject to local, state, and federal regulations given it drains the adjacent commercial development (runoff) and does not have a direct connection to Little Wolf Creek through a defined bed and bank channel with an ordinary high water mark. However, the small drainage entering the Project area through a culvert under Joyce Drive would be regulated by state and federal regulations. Given neither of the two drainages are included as a blue line stream on any USGS Topographic Map or Parcel Map, the City of Grass Valley would most likely not require the development of a Resource Management Plan for any development within the 30-foot stream setback for those drainages.

BMPs are listed here to be implemented as part of a requested variance to within 10 feet of the proposed 10-foot drainage easement area adjacent to Lot 12 (see Tentative Map dated May 2019). With the implementation of the following Best Management Practices, the development of Lot 12 within 10 feet of the edge of the intermittent drainage will have no impact on the drainage area from erosion and sedimentation.

These measures are intended for inclusion into the Project within the 30-foot drainage setback during and after construction to minimize direct and indirect impacts to water quality during and following construction. This will be accomplished by

implementing the following during and following construction:

- Limit construction to periods of extended dry weather and the dry summer season;
- Establishing the area around the active drainage channel as Environmentally Sensitive Area (ESA) where those areas will not be impacted by construction or thereafter;
- No fill or dredge material will enter or be removed from the drainage channel during construction and thereafter;
- Placement of soil erosion control devices (such as wattles, etc.) between the drainage and Lot 12 site development to limit potential runoff and sedimentation into the drainage;
- Use appropriate machinery and equipment to limit disturbance in this area;
- No dewatering of the drainage will occur during construction or thereafter; and
- Implement Best Management Practices (BMPs) during and following construction.

IMPLEMENTATION OF BEST MANAGEMENT PRACTICES DURING CONSTRUCTION

To protect the small, intermittent drainage, 30-foot drainage setback areas, water quality, and downstream water resources, the contractor shall implement standard Best Management Practices (BMPs) during and after construction. These measures should include, but are not limited to:

- Minimize the number and size of work areas for equipment and spoil storage sites in the vicinity of the stream. Place staging areas and other work areas outside of the 30-foot drainage setback.

- The contractor shall exercise reasonable precaution to protect this drainage and adjacent 30-foot drainage setback, including potential wetlands, from pollution with fuels, oils, and other harmful materials. Construction byproducts and pollutants such as oil, cement, and wash water shall be prevented from discharging into or near these resources and shall be collected for removal off the site. All construction debris and associated materials and litter shall be removed from the work site immediately upon completion.

- No equipment for vehicle maintenance or refueling shall occur within the 30-foot drainage setback. The contractor shall immediately contain and clean up any petroleum or other chemical spills with absorbent materials such as sawdust or kitty litter. For other hazardous materials, follow the cleanup instruction on the label.

Post Construction Erosion Control

Exposed bare soil along the drainage embankment, including the 30-foot drainage setback, should be protected against loss from erosion by the seeding of an erosion control mixture and restored with native grasses and mulching. Non-native species that are known to invade wild lands, such as orchard grass, velvet grass, rose clover, winter and spring vetch, and wild oats should not be used as they displace native species.

Provide Copies of Mitigation Measures to Contractors

To ensure the proper and timely implementation of all mitigation measures contained in this Management Plan, as well as the terms and conditions of any other required permits, the applicant shall distribute copies of these mitigation measures and permit requirements to the contractors prior to grading and construction within the 30-foot drainage setback. All contractors shall be completely familiar with the mitigation measures contained above and with the terms and conditions of all permits.

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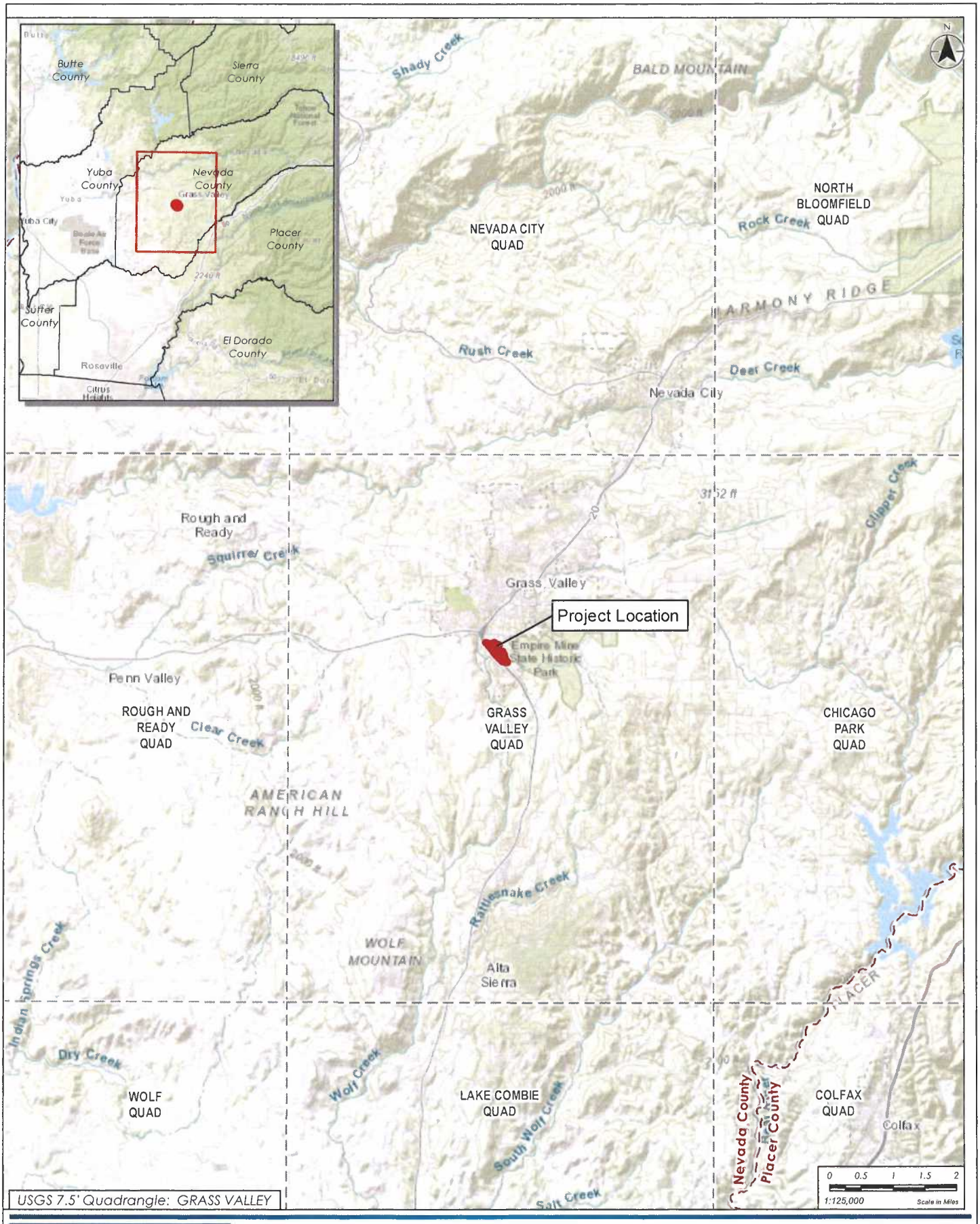
Appendix A

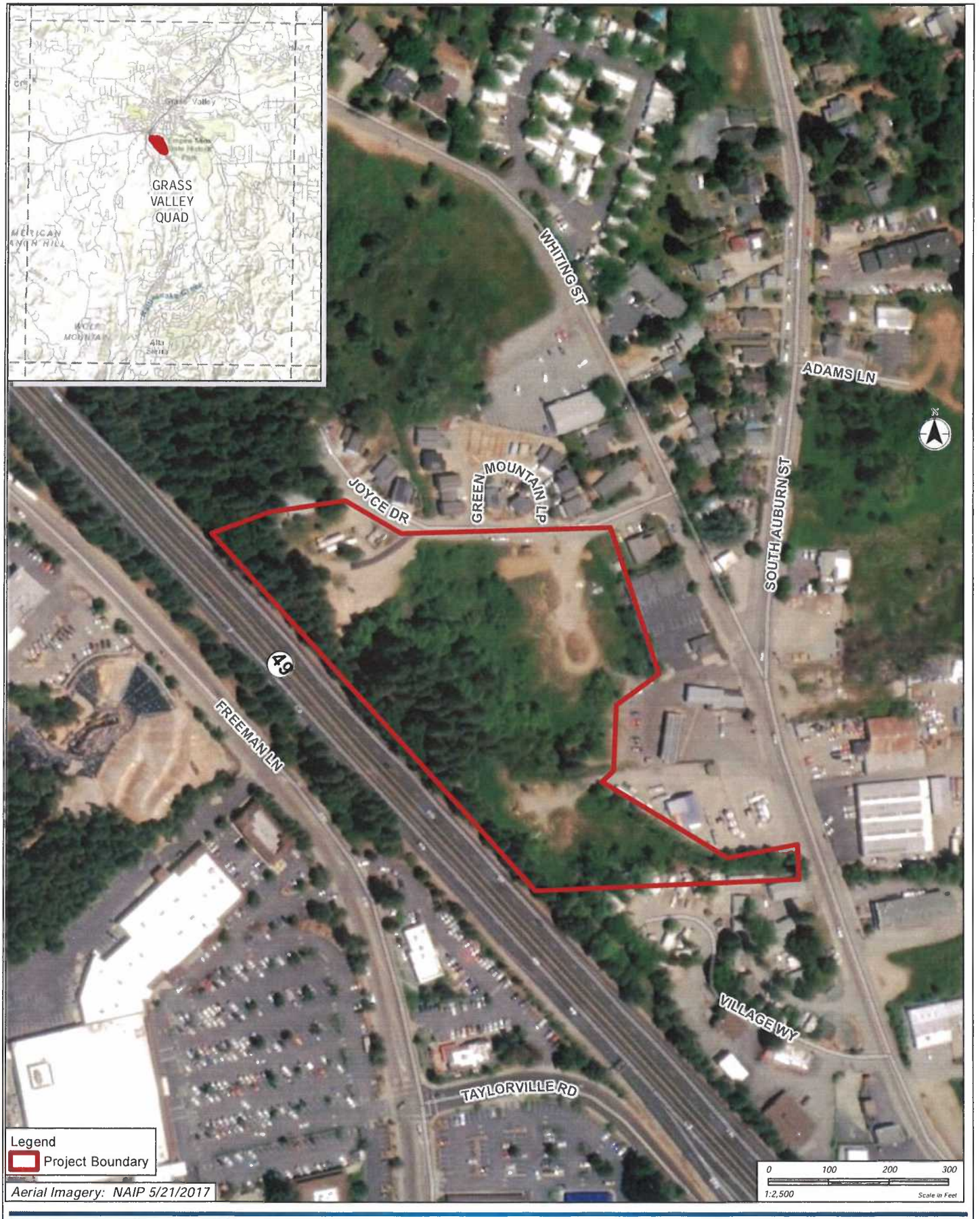
Project Vicinity and Project Location Figures



GREG MATUZAK
Environmental Consulting LLC
Nevada City, CA

Figure 1. Vicinity Map

Prepared: Melissa Nugent 5/8/2019 C:\2019_Matsuzak\20190427_NevCounty_Joyce Drive\mxd\Fig1_Vicinity_NevadaCounty_Joyce Drive.mxd



GREG MATUZAK
Environmental Consulting LLC
Nevada City, CA

Figure 2. Project Location Map

Prepared: Melissa Nugent 5/8/2019 C:\2019_Matsuzak\20190427_NevCounty_Joyce Drive\mxd\Fig2_SiteMap_NevadaCounty_Joyce Drive.mxd

Appendix B

Photo Log

Photo Log of Project Area During Site Surveys Conducted on May 31st, 2019

Photo 1: Entrance to project area along Joyce Drive looking west.

Photo 2: Central section of project area looking towards the southwest corner of project.

Photo 3: Project area from Joyce Drive looking south with drainage area and floodplain to the right. Drainage enters project area from the north through an existing culvert.

Photo 4: Photo from central area of project area looking north. Existing Habitat for Humanity development on the north side of Joyce Drive.

Photo 5: Central area of proposed project area looking west towards Little Wolf Creek drainage and associated floodplain.

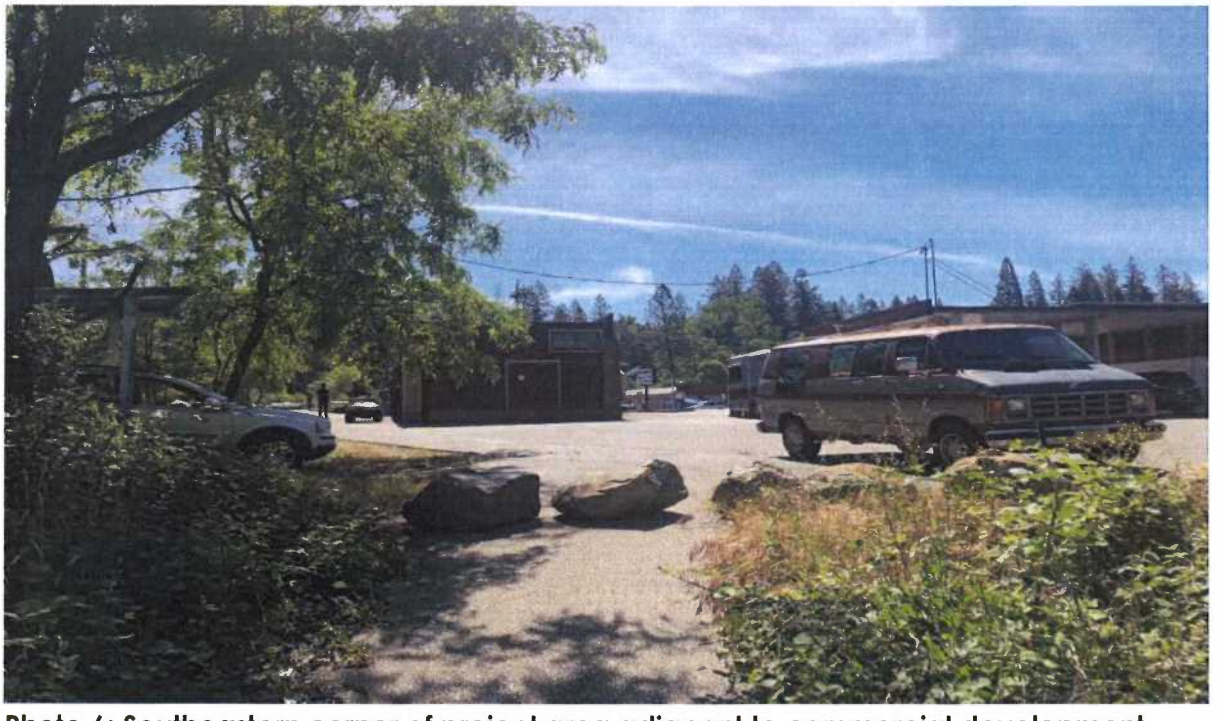


Photo 6: Southeastern corner of project area adjacent to commercial development. Drainage crosses under walkway and flows along the southern border of project area.

Photo 7: Drainage area entering the northwestern area of the parcel from a culvert under Joyce Drive. This area is subject to agency approved permits for dredge or fill material placed within the drainage. This area includes the mapped floodplain.

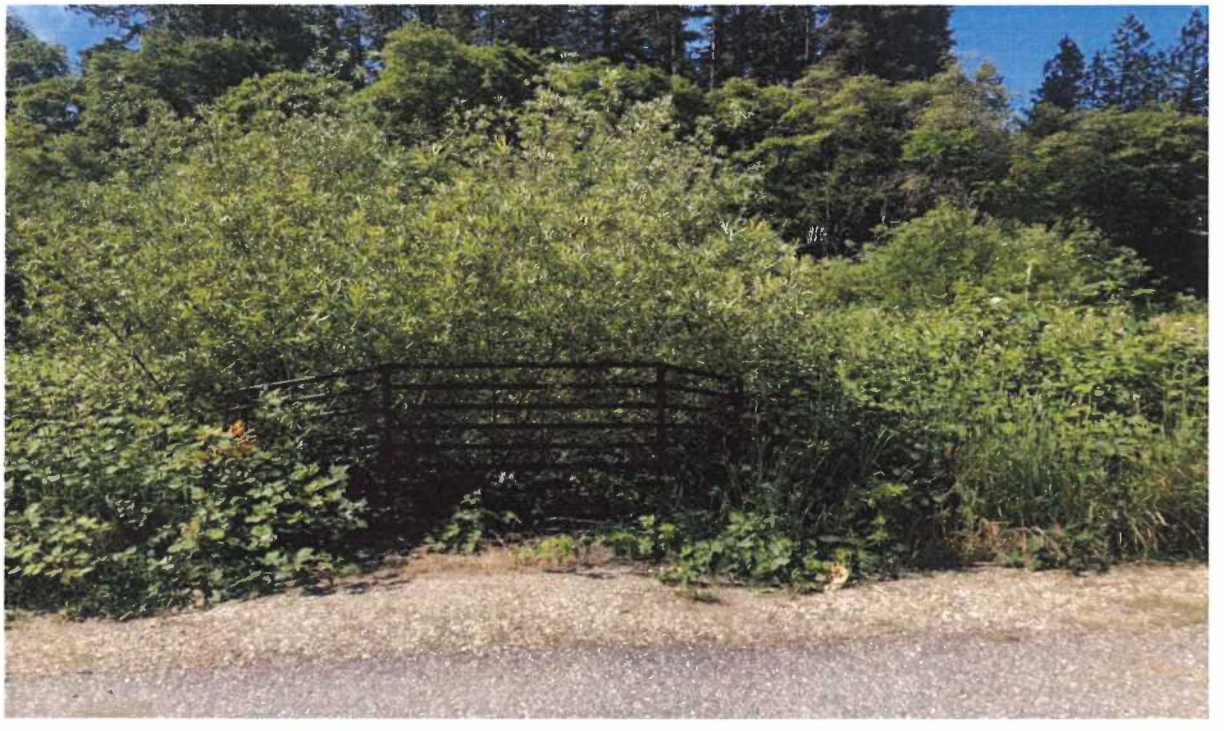


Photo 8: Drainage on south side of Joyce Drive that flows into the project area.

Photo 9: Drainage on north side of Joyce Drive that flows into the project area.

Photo 10: Northwest section of project area with SR 49 in the distance.

Photo 11: Little Wolf Creek floodplain along SR 49 and the western area of the project.

Photo 12: Joyce Drive along the northern end of the project area. Photo looking east.

Appendix C

Plants and Wildlife Observed

Plant Species Observed within the Project Area May 31st, 2019

Scientific Name	Common Name
CRYPTOGAMS	**FERNS AND SPIKE-MOSSES**
Equisetaceae	**Horsetail Family**
Equisetum arvense	common horsetail
GYMNOSPERMS	**CONIFERS**
Cupressaceae	**Cypress Family**
Calocedrus decurrens	incense cedar
Pineaceae	**Pine Family**
Pinus ponderosa	ponderosa pine
DICOTYLEDONS	**FLOWERING PLANTS**
Aceraceae	**Maple Family**
Acer macrophyllum	big-leaf maple
Anacardiaceae	**Cashew Family**
Toxicodendron diversilobum	poison oak
Apiaceae (Umbelliferae)	**Carrot Family**
Daucus carota	wild carrot
Torilis arvensis	hedge-parsley
Asteraceae (Compositae)	**Sunflower Family**
Aster eatonii	Eaton's aster
Calycadenia spicata	white tarweed
Cirsium occidentale	western thistle
Cirsium vulgare	common thistle
Sonchus sp.	sow thistle
Taraxacum officinale	common dandelion

Betulaceae	**Birch Family**
Alnus rhombifolia	white alder
Brassicaceae (Cruciferae)	**Mustard Family**
Brassica nigra	black mustard
Lepidium nitidum	pepper grass
Caprifoliaceae	**Honeysuckle Family**
Lonicera hispidula	honeysuckle
Fabaceae	**Legume Family**
Lathyrus latifolius	sweet pea
Lotus humistratus	lotus
Hypericaceae	**St. John's Wort Family**
Hypericum perforatum	Klamath weed
Lamiaceae	**Mint Family**
Prunella vulgaris var. *lanceolatus*	self-heal
Plantaginaceae	**Plantain Family**
Plantago lanceolata	common plantain
Polygonaceae	**Buckwheat Family**
Rumex crispus	curly dock
Rosaceae	**Rose Family**
Rosa californica	wild rose
Rubus armeniacus	Armenian blackberry
Rubus laciniatus	cut-leaved blackberry
Rubus leucodermis	blackcap raspberry
Salicaceae	**Willow Family**
Salix laevigata	red willow
Salix lasiolepis	arroyo willow

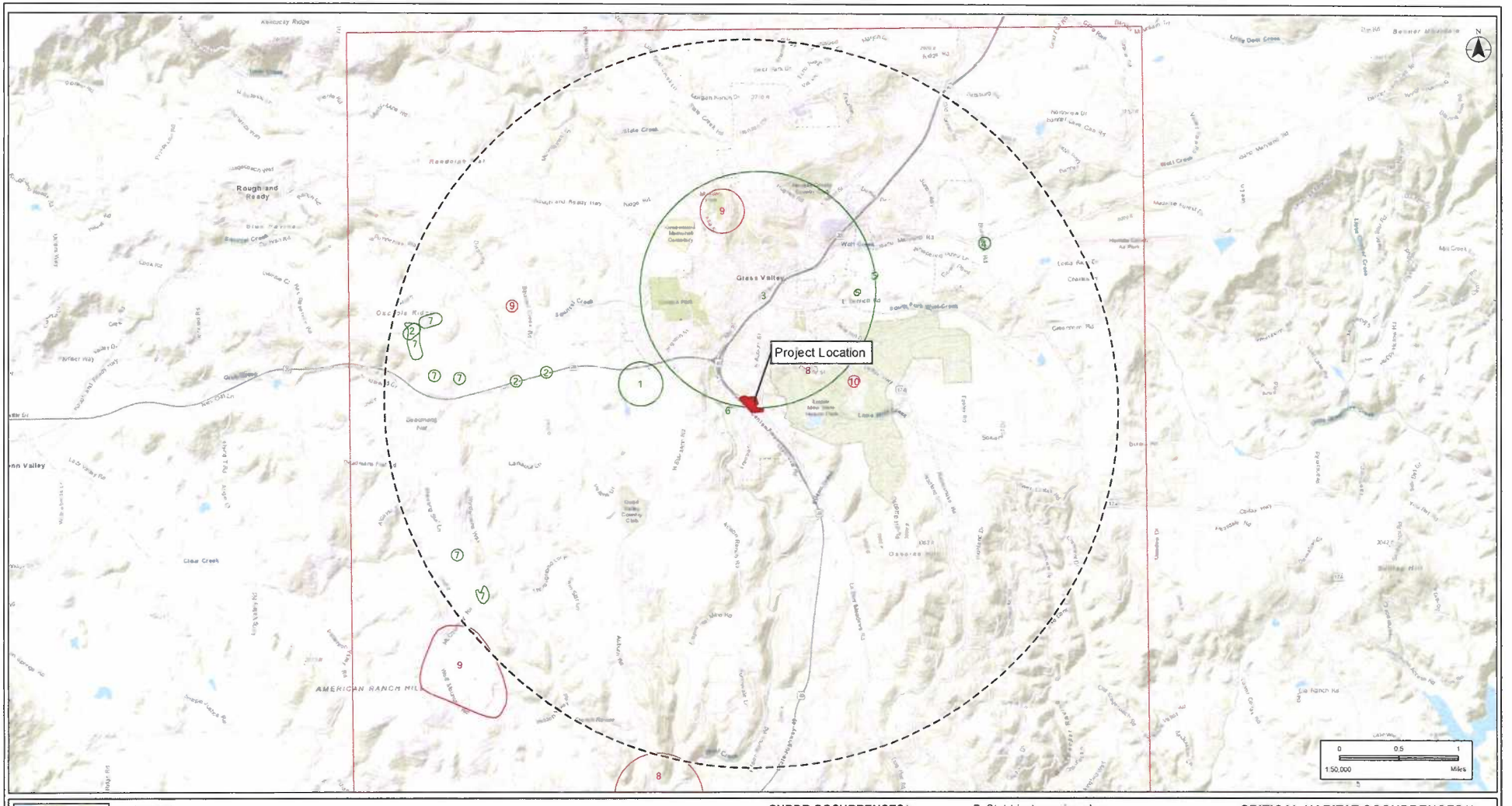
Scrophulariaceae	**Figwort Family**
Mimulus guttatus	seep-spring monkeyflower
Verbascum thapsus	woolly mullein
Cyperaceae	**Sedge Family**
Carex densa (dudleyi)	sedge
Carex feta	sedge
Carex praegracilis	clustered field sedge
Cyperus eragrostis	umbrella sedge
Juncaceae	**Rush Family**
Juncus balticus	Baltic rush
Juncus xiphioides	iris-leaved rush
Liliaceae	**Lily Family**
Chlorogalum pomeridianum	soap plant
Poaceae	**Grass Family**
Avena fatua	wild oats
Bromus diandrus	ripgut brome
Bromus hordeaceus	soft brome
Dactylis glomerata	orchard grass
Elymus glaucus	blue wild-rye
Festuca arundinacea	tall fescue
Holcus lanatus	velvet grass
Hordeum marinum ssp. *gussoneanum*	Mediterranean barley
Muhlenbergia rigens	deer grass
Taeniatherum caput-medusae	medusa-head grass

Wildlife Species observed within the Project Area May 31st, 2019

Wildlife	
Apheloxoma californica	Western scrub jay
Buteo jamaicensis	Red-tailed hawk
Callipepla californica	California quail
Melozone crissalis	California towhee

Appendix D

CNDDB Locations of Special Status Species within 3 Miles of Project Area



Legend

- Project Location
- 3 mile Buffer on Project
- CNDDB Plant Occurence*
- CNDDB Wildlife Occurence*
- Critical Plant Habitat** (none)
- Critical Wildlife Habitat** (none)

* California Natural Diversity Database (CNDDB) Data: Downloaded March 2019, from the California Department of Fish and Wildlife

** United States Fish and Wildlife Service (USFWS) Critical Habitat Data: Downloaded April 2019 from: https://ecos.fws.gov/ecp/report/table/critical-habitat.html

CNDDB OCCURRENCES*

Plant Species

1. Brownish beaked-rush
2. Chaparral sedge
3. Dubious pea
4. Finger rush
5. Pine Hill flannelbush
6. Scadden Flat checkerbloom
7. Stebbins' morning-glory

Wildlife Species

8. California black rail
9. Coast horned lizard
10. Townsend's big-eared bat

CRITICAL HABITAT OCCURRENCES**

Plant Habitat

None

Wildlife Habitat

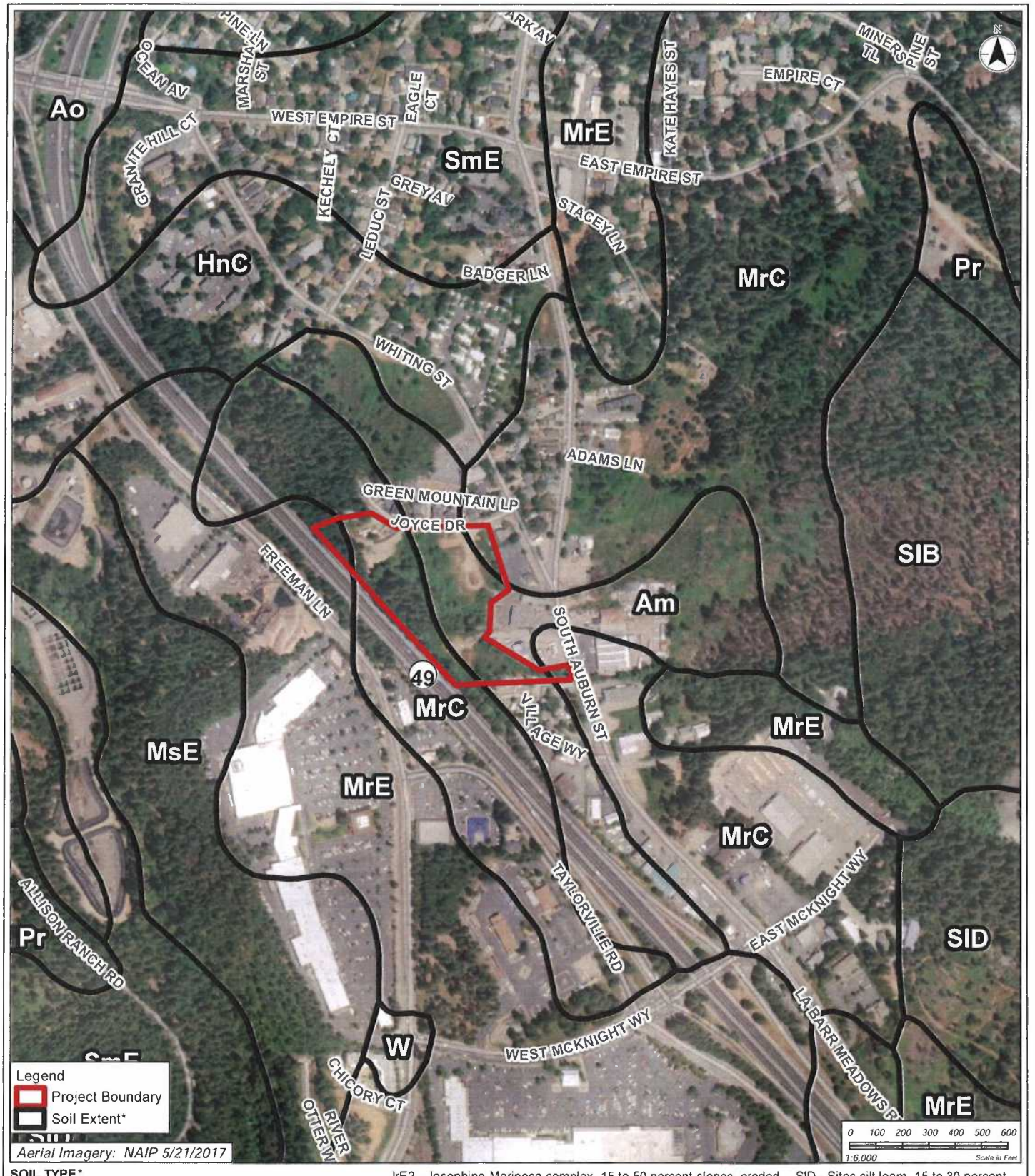
None

GREG MATUZAK Environmental Consulting LLC Nevada City, CA

Figure 3. CNDDB and Critical Habitat Map

Appendix E

USDA Soils Map of Project Area



SOIL TYPE*

Am - Alluvial land, loamy
Ao - Alluvial land, clayey
Ao - Alluvial land, clayey
HnC - Hoda sandy loam, 9 to 15 percent slopes
HoC2 - Hoda cobbly sandy loam, 2 to 15 percent slopes, eroded
JoC - Josephine loam, 9 to 15 percent slopes
JrE2 - Josephine-Mariposa complex, 15 to 50 percent slopes, eroded
MrC - Musick sandy loam, 5 to 15 percent slopes
MrE - Musick sandy loam, 15 to 50 percent slopes
MsE - Musick-Rock outcrop complex, 5 to 50 percent slopes
Pr - Placer diggings
SIB - Sites silt loam, 2 to 9 percent slopes, N low montane
SID - Sites silt loam, 15 to 30 percent slopes, N low montane
SID - Sites silt loam, 15 to 30 percent slopes, N low montane
SmE - Sites very stony loam, 15 to 50 percent slopes
W - Water

* Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online. Accessed 03/06/2019

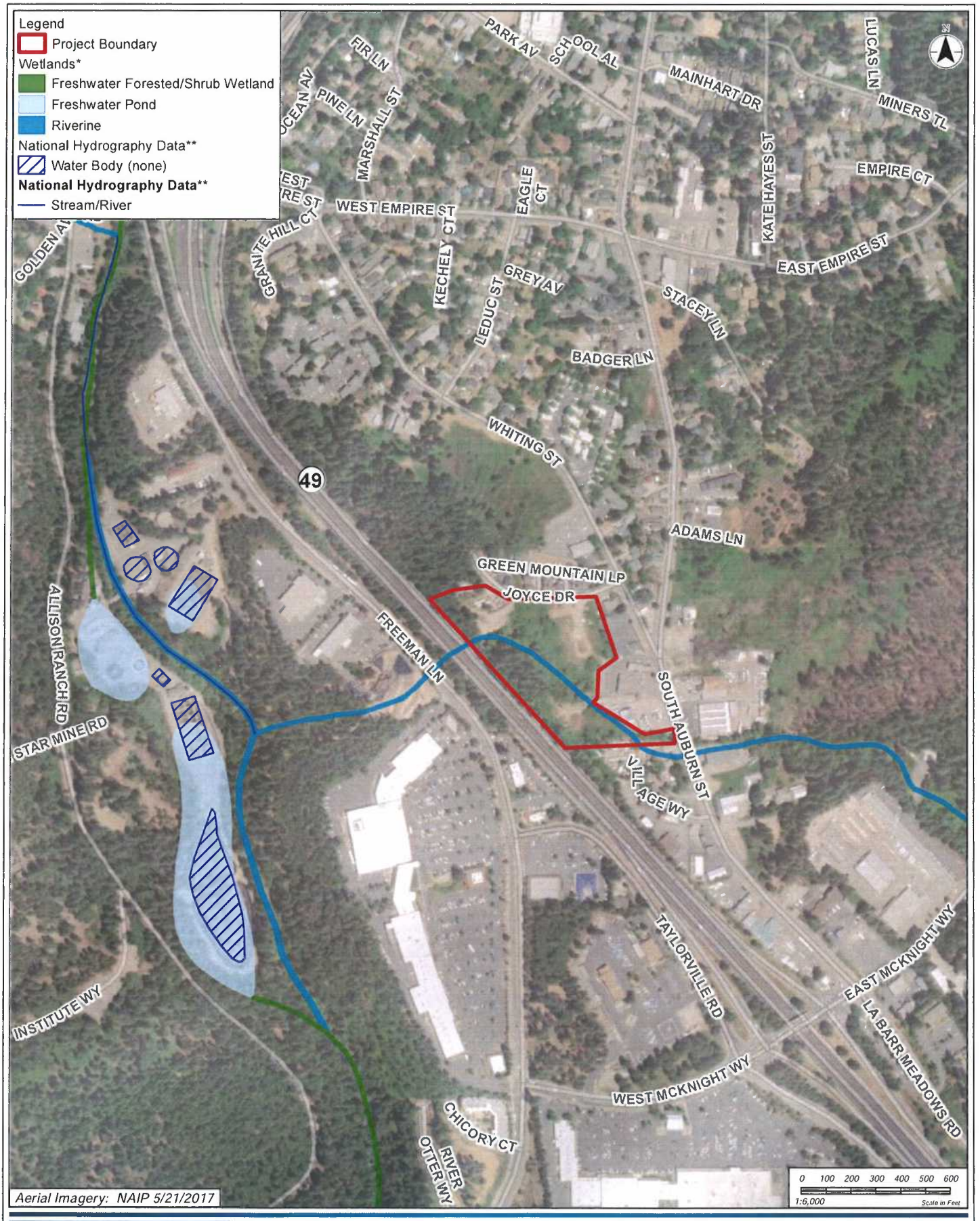
GREG MATUZAK
Environmental Consulting LLC
Nevada City, CA

Figure 4. Soils Map

Prepared: Melissa Nugent 5/8/2019 C:\2019_Matsuzak\20190427_NevCounty_Joyce Drive\mxd\Fig4_SoilsMap_NevadaCounty_Joyce Drive.mxd

Appendix F

National Wetland Inventory (NWI) Figure



GREG MATUZAK
Environmental Consulting LLC
Nevada City, CA

* Data downloaded from https://www.fws.gov/wetlands/Data/Data-Download.html 3/6/2019
** National Hydrography Dataset (NHD) downloaded from http://nhd.usgs.gov March, 2019

NOTE: Wetlands and NHD water features on this map have been adjusted approximately 300 feet west and 38 feet southto properly overlay the aerial image used in this map. As such, the feature locations are consodered accurate with respect to the aerial imagery.

Figure 5. Wetlands and Water Features Map

Prepared: Melissa Nugent 5/8/2019 C:\2019_Matsuzak\20190427_NevCounty_Joyce Drive\mxd\Fig5_NWI-NHD_NevadaCounty_Joyce Drive.mxd

Appendix G

CNDDB Occurrence and USFWS IPaC Reports

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Mapndx IS (12076 OR 22742 OR 22744 OR 22745 OR 23689 OR 39883 OR 39902 OR 41294 OR 50474 OR 68011 OR 76676 OR 79239 OR 83108 OR 99346 OR A1922 OR A1943)

Map Index Number: 68011
EO Index: 68166
Key Quad: Grass Valley (3912121)
Element Code: ABNME03041
Occurrence Number: 135
Occurrence Last Updated: 2009-09-24

Scientific Name: *Laterallus jamaicensis coturniculus*
Common Name: California black rail

Listing Status: **Federal:** None
*** SENSITIVE *** **State:** Threatened
CNDDB Element Ranks: **Global:** G3G4T1
State: S1

Rare Plant Rank:
Other Lists: BLM_S-Sensitive
CDFW_FP-Fully Protected
IUCN_NT-Near Threatened
NABCI_RWL-Red Watch List
USFWS_BCC-Birds of Conservation Concern

General Habitat:
INHABITS FRESHWATER MARSHES, WET MEADOWS AND SHALLOW MARGINS OF SALTWATER MARSHES BORDERING LARGER BAYS.

Micro Habitat:
NEEDS WATER DEPTHS OF ABOUT 1 INCH THAT DO NOT FLUCTUATE DURING THE YEAR AND DENSE VEGETATION FOR NESTING HABITAT.

Last Date Observed: 2007-01-23
Last Survey Date: 2007-01-23
Owner/Manager:
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Unknown

Location:
SENSITIVE LOCATION INFORMATION SUPPRESSED.

Detailed Location:
PLEASE CONTACT THE CALIFORNIA NATURAL DIVERSITY DATABASE, CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE, FOR MORE INFORMATION: (916) 322-2493

Ecological:
MEADOW/EMERGENT WETLAND HABITAT ASSOCIATED WITH SEEPAGE FROM A POND, DOMINATED BY TYPHA DOMINGENSIS, CAREX SP., JUNCUS EFFUSUS PACIFICUS, EPILOBIUM SPP, SALIX LESIDEPIS, AND RUBUS DISCOLOR; SURROUNDED BY HOMES. BISECTED BY A ROAD.

Threats:
UPLAND, NOXIUS WEEDS INVADING MEADOW. SIPHON IN MEADOW DEGRADING WETLAND HABITAT. DEVELOPMENT PROPOSED IN 2007.

General:

PLSS:
UTM:
Accuracy: 80 meters
Latitude/Longitude:
Area (acres): 0
Elevation (feet): 2,225

County Summary:	Quad Summary:
Nevada	Grass Valley (3912121)

Sources:

MOR07F0001	MORAN, V. (ECOLOGICAL OUTREACH SERVICES) - FIELD SURVEY FORM FOR LATERALLUS JAMAICENSIS COTURNICULUS 2007-01-23
RIC08A0002	RICHMOND O.M. ET AL. (UNIVERSITY OF CALIFORNIA, BERKELEY) - DISTRIBUTION OF CALIFORNIA BLACK RAILS IN THE SIERRA NEVADA FOOTHILLS. J. FIELD ORNITHOL. 79(4):381-390 2008-XX-XX
TEC02F0001	TECKLIN, J. & D. SCHAEFER (UNIVERSITY OF CALIFORNIA, DAVIS) - FIELD SURVEY FORM FOR LATERALLUS JAMAICENSIS COTURNICULUS 2002-07-21
TEC07U0001	TECKLIN, J. (UNIVERSITY OF CALIFORNIA, DAVIS) - E-MAIL TO VIRGINIA MORAN ABOUT THE PRESENCE OF BLACK RAILS IN A MEADOW SSE OF GRASS VALLEY 2007-01-31

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	76676	**EO Index:**	77622
Key Quad:	Grass Valley (3912121)	**Element Code:**	ABNME03041
Occurrence Number:	264	**Occurrence Last Updated:**	2009-09-23

Scientific Name: *Laterallus jamaicensis coturniculus*

Common Name: California black rail

Listing Status:
- **Federal:** None
- **State:** Threatened

CNDDB Element Ranks:
- **Global:** G3G4T1
- **State:** S1

Rare Plant Rank:

Other Lists: BLM_S-Sensitive
CDFW_FP-Fully Protected
IUCN_NT-Near Threatened
NABCI_RWL-Red Watch List
USFWS_BCC-Birds of Conservation Concern

General Habitat:

INHABITS FRESHWATER MARSHES, WET MEADOWS AND SHALLOW MARGINS OF SALTWATER MARSHES BORDERING LARGER BAYS.

Micro Habitat:

NEEDS WATER DEPTHS OF ABOUT 1 INCH THAT DO NOT FLUCTUATE DURING THE YEAR AND DENSE VEGETATION FOR NESTING HABITAT.

Last Date Observed:	XXXX-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	XXXX-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

VICINITY OF OLD AUBURN RD ABOUT 2.1 MI NORTH OF JUNCTION WITH HWY 49, ABOUT 4.3 MI SSW OF GRASS VALLEY (PO).

Detailed Location:

MAPPED BY GEOREFERENCING FIGURE 2 IN RICHMOND 2008. WITHIN THE CORE SURVEY AREA.

Ecological:

SURVEY MARSHES GENERALLY SMALL, GENTLY SLOPED, DENSELY VEGETATED & HIGHLY FRAGMENTED (SURROUNDED BY UNSUITABLE HABITAT). WATER SOURCES PRIMARILY FROM IRRIGATION DITCHES. OCCURRENCE REPRESENTS PART OF A METAPOPULATION IN SIERRA FOOTHILLS.

Threats:

General:

CA BLACK RAILS DETECTED BY RICHMOND ET AL AT 1 SITE DURING AT LEAST 1 PHASE OF CALL-PLAYBACK SURVEYS IN 1994-2006. PART OF A YEAR-ROUND RESIDENT BREEDING POPULATION IN THE SIERRA FOOTHILLS, DISCONTINUOUS WITH THE SF BAY-DELTA POPULATION.

PLSS:	T15N, R08E, Sec. 15, NW (M)	**Accuracy:**	2/5 mile	**Area (acres):**	0
UTM:	Zone-10 N4335903 E666050	**Latitude/Longitude:**	39.15650 / -121.07821	**Elevation (feet):**	1,860

County Summary:	**Quad Summary:**
Nevada	Grass Valley (3912121)

Sources:

RIC08A0002 RICHMOND O.M. ET AL. (UNIVERSITY OF CALIFORNIA, BERKELEY) - DISTRIBUTION OF CALIFORNIA BLACK RAILS IN THE SIERRA NEVADA FOOTHILLS. J. FIELD ORNITHOL. 79(4):381-390 2008-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	99346	**EO Index:**	100891
Key Quad:	Grass Valley (3912121)	**Element Code:**	AMACC08010
Occurrence Number:	636	**Occurrence Last Updated:**	2016-03-01

Scientific Name: *Corynorhinus townsendii*

Common Name: Townsend's big-eared bat

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3G4
State: S2

Rare Plant Rank:

Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
USFS_S-Sensitive
WBWG_H-High Priority

General Habitat:

THROUGHOUT CALIFORNIA IN A WIDE VARIETY OF HABITATS. MOST COMMON IN MESIC SITES.

Micro Habitat:

ROOSTS IN THE OPEN, HANGING FROM WALLS AND CEILINGS. ROOSTING SITES LIMITING. EXTREMELY SENSITIVE TO HUMAN DISTURBANCE.

Last Date Observed:	2015-07-24	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2015-07-24	**Occurrence Rank:**	Good
Owner/Manager:	DPR-EMPIRE MINE SHP	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

EMPIRE MINE STATE HISTORIC PARK, ABOUT 0.6 MI SE OF E EMPIRE ST AT PINE ST & 0.8 MI NE OF HWY 49 AT E MCKNIGHT WAY.

Detailed Location:

MAPPED TO LOCATION OF VISITOR CENTER.

Ecological:

ATTIC OF VISITOR CENTER IN STATE HISTORIC PARK. PEOPLE ARE IN AND OUT OF THE DOWNSTAIRS CONSTANTLY, BUT THE ATTIC IS NEVER ENTERED. SURROUNDED BY PONDEROSA PINE, MIXED CONIFER AND BLACK OAK WOODLAND.

Threats:

PARK MANAGERS WANT TO CLOSE OFF THE ATTIC BECAUSE OF HUMAN HEALTH AND SAFETY ISSUES (I.E. EVICT BAT COLONY).

General:

MATERNAL ROOST OF ABOUT 40 BATS (ADULT FEMALES AND PUPS) OBSERVED ON 1 JUL & 24 JUL 2015.

PLSS:	T16N, R08E, Sec. 35, NW (M)	**Accuracy:**	80 meters	**Area (acres):**	0
UTM:	Zone-10 N4341565 E668643	**Latitude/Longitude:**	39.20699 / -121.04679	**Elevation (feet):**	2,600

County Summary:	**Quad Summary:**
Nevada	Grass Valley (3912121)

Sources:

LEW15F0004	LEWIS, A. (CALIFORNIA DEPARTMENT OF PARKS AND RECREATION) - FIELD SURVEY FORM FOR CORYNORHINUS TOWNSENDII 2015-07-24
SHA15D0001	SHAW, D. (CALIFORNIA DEPARTMENT OF PARKS AND RECREATION) - CALIFORNIA STATE PARK WILDLIFE SUMMARY 2015 [SC-002490] 2015-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	23689	**EO Index:**	7330
Key Quad:	Grass Valley (3912121)	**Element Code:**	ARACF12100
Occurrence Number:	577	**Occurrence Last Updated:**	1998-10-05

Scientific Name: *Phrynosoma blainvillii*

Common Name: coast horned lizard

Listing Status: **Federal:** None
State: None

Rare Plant Rank:

Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern

CNDDB Element Ranks: **Global:** G3G4
State: S3S4

General Habitat:

FREQUENTS A WIDE VARIETY OF HABITATS, MOST COMMON IN LOWLANDS ALONG SANDY WASHES WITH SCATTERED LOW BUSHES.

Micro Habitat:

OPEN AREAS FOR SUNNING, BUSHES FOR COVER, PATCHES OF LOOSE SOIL FOR BURIAL, AND ABUNDANT SUPPLY OF ANTS AND OTHER INSECTS.

Last Date Observed:	1995-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1995-XX-XX	**Occurrence Rank:**	Excellent
Owner/Manager:	NEV COUNTY, PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

ABOUT 4 MILES SW OF GRASS VALLEY, MOSTLY SOUTH OF MCCOURTNEY ROAD IN AND AROUND COUNTY LANDFILL.

Detailed Location:

EAST SIDE OF MCCOURTNEY ROAD, 3 MILES SW OF GRASS VALLEY.

Ecological:

HABITAT CONSISTS OF CHAPARRAL, DOMINATED BY MANZANITA, WITH SOME GRAY PINE, YELLOW PINE, MACNAD CYPRESS, BLUE OAK, BLACK OAK AND LIVE OAK.

Threats:

DEVELOPMENT, COUNTY LANDFILL.

General:

TWO ADULT LIZARDS FOUND IN A LEACHFIELD AREA. LIZARDS COMMON AT THIS LOCATION, FIELDWORK DONE IN THE TIME PERIOD OF 1974 TO 1995.

PLSS:	T15N, R08E, Sec. 08, SE (M)	**Accuracy:**	nonspecific area	**Area (acres):**	253
UTM:	Zone-10 N4337572 E663345	**Latitude/Longitude:**	39.17205 / -121.10910	**Elevation (feet):**	2,250

County Summary:	**Quad Summary:**
Nevada	Grass Valley (3912121)

Sources:

BUR90F0018	BURRY, T. - FIELD SURVEY FORM FOR PHRYNOSOMA CORONATUM (FRONTALE POPULATION, CALIFORNIA HORNED LIZARD) 1990-09-13
HAR90F0010	HART, B. - FIELD SURVEY FORM FOR PHRYNOSOMA CORONATUM (FRONTALE POPULATION, CALIFORNIA HORNED LIZARD) 1990-08-21
HAR91F0011	HART, B. - FIELD SURVEY FORM FOR PHRYNOSOMA CORONATUM (FRONTALE POPULATION, CALIFORNIA HORNED LIZARD). (4 PHOTOGRAPHS IN ENVELOPE IN ELEMENT FILE LABELED AS ABOVE) 1991-06-10
HIS90F0002	HISCOX, K. - FIELD SURVEY FORM FOR PHRYNOSOMA CORONATUM (FRONTALE POPULATION, CALIFORNIA HORNED LIZARD) 1990-08-22
HIS93F0001	HISCOX, K.J. - FIELD SURVEY FORM FOR PHRYNOSOMA CORONATUM (FRONTALE POPULATION) 1993-04-12
OLI95F0003	OLIVER, R. - FIELD SURVEY FORM FOR PHRYNOSOMA CORONATUM (FRONTALE POPULATION) 1995-XX-XX
VAN90F0007	VAN VALER, V. - FIELD SURVEY FORM FOR PHRYNOSOMA CORONATUM (FRONTALE POPULATION, CALIFORNIA HORNED LIZARD) 1990-09-04

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	39883	**EO Index:**	34885
Key Quad:	Grass Valley (3912121)	**Element Code:**	ARACF12100
Occurrence Number:	599	**Occurrence Last Updated:**	1998-10-01

Scientific Name: *Phrynosoma blainvillii*

Common Name: coast horned lizard

Listing Status: **Federal:** None
State: None

Rare Plant Rank:

Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern

CNDDB Element Ranks: **Global:** G3G4
State: S3S4

General Habitat:

FREQUENTS A WIDE VARIETY OF HABITATS, MOST COMMON IN LOWLANDS ALONG SANDY WASHES WITH SCATTERED LOW BUSHES.

Micro Habitat:

OPEN AREAS FOR SUNNING, BUSHES FOR COVER, PATCHES OF LOOSE SOIL FOR BURIAL, AND ABUNDANT SUPPLY OF ANTS AND OTHER INSECTS.

Last Date Observed:	1991-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1991-XX-XX	**Occurrence Rank:**	Poor
Owner/Manager:	CITY OF GRASS VALLEY	**Trend:**	Decreasing
Presence:	Presumed Extant		

Location:

GRASS VALLEY TREATMENT PLANT, 11808 ALTA VISTA AVE, GRASS VALLEY.

Detailed Location:

Ecological:

GROUNDS COVERED WITH PEA GRAVLE, MANY BUSHES AND SHRUBS, MANY ANTS.

Threats:

TREATMENT PLANT UNDERGOING MAJOR RECONSTRUCTION.

General:

OBSERVED LIZARDS FROM 1983 TO 1991; RESCUED DOZENS OF YOUNG OFF FLOATING RESERVOIR COVER. YOUNG APPEAR 1ST 2 WEEKS OF AUGUST. OBSERVED FEWER EACH YEAR, WITH ONLY 1 SEEN IN 1991.

PLSS:	T16N, R08E, Sec. 22 (M)	**Accuracy:**	1/5 mile	**Area (acres):**	0
UTM:	Zone-10 N4343842 E666824	**Latitude/Longitude:**	39.22785 / -121.06730	**Elevation (feet):**	2,560

County Summary:	**Quad Summary:**
Nevada	Grass Valley (3912121)

Sources:

BEA91F0001	BEATIE, J. - FIELD SURVEY FORM FOR PHRYNOSOMA CORONATUM (FRONTALE POPULATION, CALIFORNIA HORNED LIZARD) 1991-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 39902
Key Quad: Grass Valley (3912121)
Occurrence Number: 602
EO Index: 34904
Element Code: ARACF12100
Occurrence Last Updated: 1998-10-05

Scientific Name: *Phrynosoma blainvillii*
Common Name: coast horned lizard

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3G4
State: S3S4

Rare Plant Rank:
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern

General Habitat:
FREQUENTS A WIDE VARIETY OF HABITATS, MOST COMMON IN LOWLANDS ALONG SANDY WASHES WITH SCATTERED LOW BUSHES.

Micro Habitat:
OPEN AREAS FOR SUNNING, BUSHES FOR COVER, PATCHES OF LOOSE SOIL FOR BURIAL, AND ABUNDANT SUPPLY OF ANTS AND OTHER INSECTS.

Last Date Observed: 1991-05-03
Last Survey Date: 1991-05-03
Owner/Manager: PVT
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
12277 NUTHATCH CT, SQUIRREL CREEK ROAD (MAP PROVIDED; USGS MAP - DEADMANS FLAT ROAD), GRASS VALLEY.

Detailed Location:
OPEN ROCKY AREA NEAR HOME IN RURAL LOCATION.

Ecological:
EDGE BETWEEN DIGGER PINES, MANZANITA, LEMMONS CEANOTHUS, BLUE OAKS AND PONDEROSA, BLACK OAK, INCENSE CEDAR - ALL PLANTS MENTIONED WERE WITHIN 100 FEET FROM WERE LIZARD WAS OBSERVED.

Threats:
RURAL RESIDENTIAL.

General:
ONE LIZARD OBSERVED TWICE ON SUCCESSIVE DAYS AT THE SAME LOCATION, TOTAL LENGTH ~4.5 INCHES.

PLSS: T16N, R08E, Sec. 29, SE (M)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-10 N4342530 E663985
Latitude/Longitude: 39.21658 / -121.10049
Elevation (feet): 3,220

County Summary:	Quad Summary:
Nevada	Grass Valley (3912121)

Sources:

BAN91F0001 BANWELL, T. - FIELD SURVEY FORM FOR PHRYNOSOMA CORONATUM (FRONTALE POPULATION, CALIFORNIA HORNED LIZARD) 1991-05-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	22742	**EO Index:**	8302
Key Quad:	Grass Valley (3912121)	**Element Code:**	PDCON040H0
Occurrence Number:	18	**Occurrence Last Updated:**	2017-12-08

Scientific Name: *Calystegia stebbinsii* **Common Name:** Stebbins' morning-glory

Listing Status: **Federal:** Endangered **Rare Plant Rank:** 1B.1

State: Endangered **Other Lists:** SB_RSABG-Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G1

State: S1

General Habitat:

CHAPARRAL, CISMONTANE WOODLAND.

Micro Habitat:

ON RED CLAY SOILS OF THE PINE HILL FORMATION; GABBRO OR SERPENTINE; OPEN AREAS. 300-705 M.

Last Date Observed:	2012-06-13	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2012-06-13	**Occurrence Rank:**	Good
Owner/Manager:	PVT, BLM	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

ALONG SOUTH PONDEROSA WAY, EXTENDING ABOUT 0.7 MILE WEST FROM JUNCTION WITH SQUIRREL CREEK RD, NE END OF DEADMANS FLAT.

Detailed Location:

ALONG EITHER SIDE OF SOUTH PONDEROSA WAY. MAPPED BY CNDDB AS 4 POLYGONS TO ENCOMPASS INFO FROM HISCOX (1989), CALLAHAN (2007), & FRANKLIN (2008). IN 2007 CALLAHAN MENTIONS THAT THERE ARE LIKELY MORE PLANTS IN AREA.

Ecological:

GABBROIC CHAPARRAL; CLEARINGS/OPENINGS IN CHAPARRAL WITH CUPRESSUS MACNABIANA, ARCTOSTAPHYLOS VISCIDA, CEANOTHUS SPP., QUERCUS SPP., PINUS SPP., GARRYA SPP., PICKERINGIA MONTANA, CAREX BRAINERDII, FREMONTODENDRON CALIFORNICUM, ETC.

Threats:

DEVELOPMENT & COUNTY PUBLIC WORKS PROJECTS MAY THREATEN SITE. ALSO THREATENED BY ROAD USE, ROAD MANINTENANCE, & ORV USE.

General:

1 PLANT SEEN IN 1989. 2 PLANTS SEEN IN N PORTION OF OCC IN 1991, 1 PLANT SEEN IN SE-MOST POLY IN 1991; EXTENSIVE SURVEY NOT PERFORMED. 20+ PLANTS SEEN IN 2007. UNK # SEEN IN 2008, 2011, & 2012. INCLUDES FORMER OCC #19.

PLSS:	T16N, R08E, Sec. 31, NE (M)	**Accuracy:**	specific area	**Area (acres):**	41
UTM:	Zone-10 N4341864 E662742	**Latitude/Longitude:**	39.21081 / -121.11504	**Elevation (feet):**	2,300

County Summary:	**Quad Summary:**
Nevada	Grass Valley (3912121)

Sources:

BRU12S0006	BRUMMITT, R. ET AL. - BRUMMITT #22055 CAS-BOT-BC #418634, CAS #1196363, CHSC #112056, UC #1965408 2012-06-13
CAL07F0004	CALLAHAN, K. - FIELD SURVEY FORM FOR CALYSTEGIA STEBBINSII 2007-05-18
CAL08F0003	CALLAHAN, K. - FIELD SURVEY FORM FOR PERIDERIDIA BACIGALUPII & CALYSTEGIA STEBBINSII 2008-07-28
FRA08S0108	FRANKLIN, A. & K. CALLAHAN - FRANKLIN #8027 CHSC #100961 2008-05-27
FRA08S0109	FRANKLIN, A. & K. CALLAHAN - FRANKLIN #8026 JEPS #111395 2008-05-27
GOG09D0001	GOGOL-PROKURAT, M. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - SHAPEFILE FOR PACKERA LAYNEAE, WYETHIA RETICULATA, CALYSTEGIA STEBBINSII, CEANOTHUS RODERICKII, FREMONTODENDRON DECUMBENS 2009-07-28
HIS91F0001	HISCOX, K. - FIELD SURVEY FORM FOR CALYSTEGIA STEBBINSII 1991-06-07
HIS91F0002	HISCOX, K. - FIELD SURVEY FORM FOR CALYSTEGIA STEBBINSII 1991-06-07
NAM11S0001	NAMOFF, S. & L. FETY - NAMOFF #57 RSA #792321 2011-07-07
SHU89F0001	SHULTZ, J. - FIELD SURVEY FORM FOR CALYSTEGIA STEBBINSII 1989-05-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	22744	**EO Index:**	20409
Key Quad:	Grass Valley (3912121)	**Element Code:**	PDCON040H0
Occurrence Number:	20	**Occurrence Last Updated:**	2004-09-27

Scientific Name: *Calystegia stebbinsii* **Common Name:** Stebbins' morning-glory

Listing Status: **Federal:** Endangered **Rare Plant Rank:** 1B.1

State: Endangered **Other Lists:** SB_RSABG-Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G1

State: S1

General Habitat:

CHAPARRAL, CISMONTANE WOODLAND.

Micro Habitat:

ON RED CLAY SOILS OF THE PINE HILL FORMATION; GABBRO OR SERPENTINE; OPEN AREAS. 300-705 M.

Last Date Observed:	1991-06-07	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2004-06-16	**Occurrence Rank:**	None
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Possibly Extirpated		

Location:

NW OF MCCOURTNEY ROAD, 2.8 KM (1.7 MI) SOUTH OF LAST CHANCE MINE ON TOPO MAP, 4 KM (2.5 MI) SW OF GRASS VALLEY.

Detailed Location:

WEST SIDE OF SOUTH PONDEROSA ROAD, 1.2 KM (0.8 MI) FROM MCCOURTNEY RD, JUST NORTH OF #14366 AT BASE OF TELEPHONE POLE #12.

Ecological:

GROWING ON SERPENTINE SOILS IN ASSOCIATION WITH ARCTOSTAPHYLOS SP., AND PINUS SABINIANA. ASSUME IT'S ON GABBRO, BUT POSSIBLY ON SERPENTINE.

Threats:

PRESENT LAND USE IS RURAL RESIDENTIAL. HUMAN ALTERATION (ROCK PILE) AND GOAT GRASS ARE ALSO THREATS.

General:

1 PLANT SEEN IN 1991. EXTENSIVE SURVEY WAS NOT DONE, HISCOX BELIEVES MORE PLANTS COULD BE PRESENT IN AREA. NO PLANTS SEEN IN 2004. SITE WHERE POPULATION WAS MAPPED APPEARS ALTERED AND DEGRADED, POTENTIALLY NO LONGER SUITABLE HABITAT.

PLSS:	T15N, R08E, Sec. 05, NE (M)	**Accuracy:**	80 meters	**Area (acres):**	0
UTM:	Zone-10 N4339151 E663283	**Latitude/Longitude:**	39.18628 / -121.10943	**Elevation (feet):**	2,240

County Summary:	**Quad Summary:**
Nevada	Grass Valley (3912121)

Sources:

GOG04F0004	GOGOL-PROKURAT, M. - FIELD SURVEY FORM FOR CALYSTEGIA STEBBINSII 2004-06-16
HIS91F0003	HISCOX, K. - FIELD SURVEY FORM FOR CALYSTEGIA STEBBINSII 1991-06-07

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	22745	**EO Index:**	8145
Key Quad:	Grass Valley (3912121)	**Element Code:**	PDCON040H0
Occurrence Number:	21	**Occurrence Last Updated:**	2004-09-28

Scientific Name: *Calystegia stebbinsii*

Common Name: Stebbins' morning-glory

Listing Status: **Federal:** Endangered

State: Endangered

Rare Plant Rank: 1B.1

Other Lists: SB_RSABG-Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G1

State: S1

General Habitat:

CHAPARRAL, CISMONTANE WOODLAND.

Micro Habitat:

ON RED CLAY SOILS OF THE PINE HILL FORMATION; GABBRO OR SERPENTINE; OPEN AREAS. 300-705 M.

Last Date Observed:	1991-06-12	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2004-06-16	**Occurrence Rank:**	None
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Possibly Extirpated		

Location:

0.5 KM (0.25 MI) SOUTH OF FRENCH RAVINE ALONG EITHER SIDE OF MCCOURTNEY ROAD, SOUTHWEST OF GRASS VALLEY.

Detailed Location:

ALONG EITHER SIDE OF MCCOURTNEY ROAD NEAR #14015 AND ACROSS THE ROAD NEAR TELEPHONE POLE #14067.

Ecological:

GROWING IN OPEN GRASS WHICH HAD RECENTLY BEEN CLEARED OF ARCTOSTAPHYLOS SP., CUPRESSUS MACNABIANA, AND PINUS SABINIANA. SOILS ARE BELIVED TO BE SERPENTINE DERIVED.

Threats:

PRESENT LAND USE IS RURAL RESIDENTIAL. IN 2004 AREA ON EAST SIDE OF ROAD HAD BEEN COMPLETELY LANDSCAPED.

General:

22 PLANTS SEEN IN 1991. MANY MORE PLANTS MAY BE IN AREA ACCORDING TO HISCOX, MOSTLY BLOOMING PLANTS WERE NOTED IN 1991. PLANTS NOT SEEN IN 2004; EAST SIDE OF ROAD IS COMPLETELY LANDSCAPED, BUT SUITABLE HABITAT REMAINS ON THE WEST SIDE.

PLSS:	T15N, R08E, Sec. 05, SE (M)	**Accuracy:**	specific area	**Area (acres):**	7
UTM:	Zone-10 N4338615 E663631	**Latitude/Longitude:**	39.18139 / -121.10554	**Elevation (feet):**	2,200

County Summary:	**Quad Summary:**
Nevada	Grass Valley (3912121)

Sources:

GOG04F0005	GOGOL-PROKURAT, M. - FIELD SURVEY FORM FOR CALYSTEGIA STEBBINSII 2004-06-16
HIS91F0004	HISCOX, K. - FIELD SURVEY FORM FOR CALYSTEGIA STEBBINSII 1991-06-12

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	79239	**EO Index:**	80219
Key Quad:	Grass Valley (3912121)	**Element Code:**	PDFAB25101
Occurrence Number:	4	**Occurrence Last Updated:**	2010-06-30

Scientific Name: *Lathyrus sulphureus var. argillaceus* **Common Name:** dubious pea

Listing Status: **Federal:** None **Rare Plant Rank:** 3

State: None **Other Lists:**

CNDDB Element Ranks: **Global:** G5T1T2

State: S1S2

General Habitat:

CISMONTANE WOODLAND, LOWER MONTANE CONIFEROUS FOREST, UPPER MONTANE CONIFEROUS FOREST.

Micro Habitat:

150-930 M.

Last Date Observed:	1926-04-17	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1926-04-17	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

GRASS VALLEY.

Detailed Location:

EXACT LOCATION UNKNOWN. MAPPED BY CNDDB IN VICINITY OF COMMUNITY OF GRASS VALLEY.

Ecological:

Threats:

General:

ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1926 COLLECTION BY ROBBINS. NEEDS FIELDWORK.

PLSS:	T16N, R08E, Sec. 27 (M)	**Accuracy:**	1 mile	**Area (acres):**	0
UTM:	Zone-10 N4342786 E667322	**Latitude/Longitude:**	39.21825 / -121.06179	**Elevation (feet):**	

County Summary:	**Quad Summary:**
Nevada	Grass Valley (3912121)

Sources:

BRO01U0001	BROICH, S. - EMAIL COMMUNICATION REGARDING COLLECTIONS AND TAXONOMY OF LATHYRUS SULPHUREUS VAR. ARGILLACEUS 2001-11-07
ROB26S0001	ROBBINS, W. - ROBBINS #539 DAV (CITED IN BRO01U0001) 1926-04-17

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	12076	**EO Index:**	4484
Key Quad:	Grass Valley (3912121)	**Element Code:**	PDMAL110R0
Occurrence Number:	1	**Occurrence Last Updated:**	2009-05-18

Scientific Name: *Sidalcea stipularis* **Common Name:** Scadden Flat checkerbloom

Listing Status:	**Federal:**	None	**Rare Plant Rank:**	1B.1
*** SENSITIVE ***	**State:**	Endangered	**Other Lists:**	SB_RSABG-Rancho Santa Ana Botanic Garden
CNDDB Element Ranks:	**Global:**	G1		
	State:	S1		

General Habitat:

MARSHES AND SWAMPS.

Micro Habitat:

WET MONTANE MARSHES FED BY SPRINGS. 700-740 M.

Last Date Observed:	2008-07-20	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2008-07-20	**Occurrence Rank:**	Fair
Owner/Manager:		**Trend:**	Fluctuating
Presence:	Presumed Extant		

Location:

SENSITIVE LOCATION INFORMATION SUPPRESSED.

Detailed Location:

PLEASE CONTACT THE CALIFORNIA NATURAL DIVERSITY DATABASE, CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE, FOR MORE INFORMATION: (916) 322-2493

Ecological:

PLANTS IN FIVE SMALL PATCHES IN WET MARSHY GROUND SURROUNDED BY PINUS PONDEROSA (INVADING MEADOW). ASSOCIATES INCLUDE SISYRINCHIUM, HOLCUS LANATUS, TYPHA LATIFOLIA, JUNCUS, LUZULA, SCIRPUS, MIMULUS, EPILOBIUM, PERIDERIDIA, AND RUBUS.

Threats:

NATIVE AND NON-NATIVE SPECIES ENCROACHING. GRAZING, HYDROLOGICAL CHANGES, HERBICIDE SPRAYING, OTHER ROAD MAINT.

General:

PLSS:	**Accuracy:**	specific area	**Area (acres):**	9
UTM:	**Latitude/Longitude:**		**Elevation (feet):**	2,400

County Summary:	**Quad Summary:**
Nevada	Grass Valley (3912121)

Sources:

ADA94U0001	ADAMS, L. - ANNUAL MONITORING REPORT ON SIDALCEA STIPULARIS 1994-01-25
ADA98M0001	ADAMS, L. - MEMO AND MAP SHOWING LOCATION OF SIDALCEA STIPULARIS 1998-06-23
AND98F0014	ANDREASON, K. - FIELD SURVEY FORM FOR SIDALCEA STIPULARIS 1998-08-02
AND98S0002	ANDREASEN, K. - ANDREASEN #287 JEPS 1998-09-02
BRO97U0001	BROWN, C. - RECORD OF PHONE CONVERSATION WITH J. HORENSTEIN REGARDING SEVERAL SITES 1997-12-22
CAL08F0002	CALLAHAN, K. - FIELD SURVEY FORM FOR SIDALCEA STIPULARIS 2008-07-20
CAR83F0001	CARVILLE, J. - FIELD SURVEY FORM FOR SIDALCEA STIPULARIS 1983-09-13
DFG83U0001	CALIFORNIA DEPARTMENT OF FISH & GAME - LETTER FROM DFG DIRECTOR TO LEO TROMBATORE, DIRECTOR OF CALTRANS, REGARDING STATUS OF THE POPULATION. 1983-11-04
HOW74A0001	HOWELL, J.T. & G.H. TRUE - A NEW SIERRAN SIDALCEA. FOUR SEASONS 4:20-22. 1974-XX-XX
LOZ86U0001	LOZIER, L. - MEMO ON SCADDEN FLAT MARSH 1986-04-01
OES80U0001	OFFICE OF ENDANGERED SPECIES, F.W.S. - INFORMAL CONSULTATION, REALIGNMENT OF STATE ROUTE 20 AT SCADDEN FLAT, #1-1-80-I-26.? (9 PAGES + 2 MAPS) 1980-03-04
REI89F0011	REINER, R. - FIELD SURVEY FORM FOR SIDALCEA STIPULARIS 1989-08-01
REI89R0003	REINER, R. - MONITORING REPORT FOR SIDALCEA STIPULARIS IN SCADDEN FLAT 1989-08-XX
SAS03U0001	SASAKI, T. - EMAIL REGARDING SIDALCEA STIPULARIS LOCATIONS 2003-08-11
SAS95F0001	SASAKI, T. - FIELD SURVEY FORM FOR SIDALCEA STIPULARIS 1995-08-30
SHO05U0002	SHOWERS, M. - EMAIL TO R. BITTMAN REGARDING SIDALCEA STIPULARIS 2005-05-19
TAY95S0063	TAYLOR, D. - TAYLOR #15373 JEPS #100678, UC #1755050 1995-08-05
TNC88R0001	THE NATURE CONSERVANCY - NATURE CONSERVANCY ELEMENT MONITORING REPORTS, 1987 1988-XX-XX
TNC90R0001	THE NATURE CONSERVANCY - 1989 AND 1990 ELEMENT MONITORING REPORTS 1990-XX-XX
TNC91R0001	THE NATURE CONSERVANCY - ELEMENT MONITORING REPORTS, 1991 1991-XX-XX
TNC94R0002	THE NATURE CONSERVANCY - TNC ELEMENT MONITORING REPORT FOR 1994 1994-09-24
TRU73S0004	TRUE, G. - TRUE SN RSA #309603 1973-07-10
TRU73S0005	TRUE, G. - TRUE #7616 CHSC #43866 1973-07-23
TRU73S0006	TRUE, G.H. & J.T. HOWELL - TRUE #7630 UC #1506447, RSA #309601 1973-07-30
TRU74S0001	TRUE, G.H. & J.T. HOWELL - TRUE SN RSA #309602 1974-05-31
WIS88R0001	WISE, C. (THE NATURE CONSERVANCY) - MONITORING PLAN FOR SIDALCEA STIPULARIS IN SCADDEN FLAT 1988-XX-XX
WYM92F0006	WYMER, N. - FIELD SURVEY FORM FOR SIDALCEA STIPULARIS 1992-08-02
YOR86F0015	YORK ET AL. - FIELD SURVEY FORM FOR SIDALCEA STIPULARIS 1986-08-28

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	41294	**EO Index:**	41294
Key Quad:	Grass Valley (3912121)	**Element Code:**	PDSTE03030
Occurrence Number:	14	**Occurrence Last Updated:**	2010-07-28

Scientific Name: *Fremontodendron decumbens*

Common Name: Pine Hill flannelbush

Listing Status: **Federal:** Endangered

State: Rare

Rare Plant Rank: 1B.2

Other Lists: SB_RSABG-Rancho Santa Ana Botanic Garden
SB_UCBBG-UC Berkeley Botanical Garden

CNDDB Element Ranks: **Global:** G1

State: S1

General Habitat:

CHAPARRAL, CISMONTANE WOODLAND.

Micro Habitat:

ROCKY RIDGES; GABBRO OR SERPENTINE ENDEMIC; OFTEN AMONG ROCKS AND BOULDERS. 425-770 M.

Last Date Observed:	2009-06-03	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2009-06-03	**Occurrence Rank:**	Fair
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

NORTH OF BENNETT ROAD, ABOUT 0.4 MILE EAST OF THE ELM RIDGE CEMETERY, GRASS VALLEY.

Detailed Location:

TWO COLONIES MAPPED WITHIN THE NW 1/4 SE 1/4 SECTION 26 ACCORDING TO A 1999 CALLAHAN MAP.

Ecological:

GROWING IN CHAPARRAL WITH CEANOTHUS CUNEATUS, ARCTOSTAPHYLOS VISCIDA, PINUS PONDEROSA, P. SABINIANA, QUERCUS DURATA, Q. GARRYANA VAR. BREWERI, PICKERINGIA MONTANA, WYETHIA BOLANDERI, RHAMNUS, CUPRESSUS MACNABIANA, AND TOXICODENDRON.

Threats:

PLANTS ARE LOCATED WITHIN FLAGGING FOR A TIMBER HARVEST ZONE. NEARBY DEVELOPMENT & PROPOSED MINE RE-OPENING ARE THREATS.

General:

SW COLONY: 3 PLANTS IN 1999 & 2008. NE COLONY: 7 IN 1999, ~100 IN 2009. IDENTITY OF THESE PLANTS HAS BEEN QUESTIONED; MAY BE F. CALIFORNICUM BASED ON HAIRS. PROBABLY A DISTINCT POP OF F. DECUMBENS OR F. DECUMBENS X F. CALIFORNICUM HYBRID.

PLSS:	T16N, R08E, Sec. 26, SE (M)	**Accuracy:**	specific area	**Area (acres):**	3
UTM:	Zone-10 N4342776 E668688	**Latitude/Longitude:**	39.21789 / -121.04598	**Elevation (feet):**	2,520

County Summary:	**Quad Summary:**
Nevada	Grass Valley (3912121)

Sources:

CAL08F0009	CALLAHAN, K. - FIELD SURVEY FORM FOR PERIDERIDIA BACIGALUPII & FREMONTODENDRON DECUMBENS 2008-07-13
CAL99F0001	CALLAHAN, K. - FIELD SURVEY FORM FOR FREMONTODENDRON DECUMBENS 1999-03-18
HOR93U0002	HORENSTEIN, J. ET AL. - CORRESPONDENCE REGARDING THE IDENTITY OF THE FREMONTODENDRON AT THE NEVADA COUNTY DUMP. INCLUDES NOTE FROM HORENSTEIN TO CNPS, R.M. LLOYD TO M. BRAGA, AND W. KELMAN TO M. BRAGA 1993 -10-08
HUG09F0006	HUGHES, C. (SYCAMORE ENVIRONMENTAL CONSULTANTS, INC.) - FIELD SURVEY FORM FOR FREMONTODENDRON DECUMBENS 2009-06-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	A1922	**EO Index:**	103486
Key Quad:	Grass Valley (3912121)	**Element Code:**	PMCYP03M60
Occurrence Number:	9	**Occurrence Last Updated:**	2016-09-23

Scientific Name: *Carex xerophila* **Common Name:** chaparral sedge

Listing Status: **Federal:** None **Rare Plant Rank:** 1B.2

State: None **Other Lists:**

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

CHAPARRAL, CISMONTANE WOODLAND, LOWER MONTANE CONIFEROUS FOREST.

Micro Habitat:

SERPENTINITE, GABBROIC. 275-770 M.

Last Date Observed:	2014-08-09	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2014-08-09	**Occurrence Rank:**	Unknown
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

ALONG HWY 20 ABOUT 0.4 AND 0.7 AIR MILE EAST OF PONDEROSA WAY, WEST OF GRASS VALLEY.

Detailed Location:

MAPPED AS 2 POLYGONS BY CNDDB BASED ON 2007 KELCH & 2014 PRESTON COORDINATES, IN THE NE 1/4 SECTION 32.

Ecological:

SERPENTINE ROADSIDE, AT EDGE OF WOODY VEGETATION.

Threats:

General:

"COMMON" IN WEST POLYGON IN 2007. UNKNOWN NUMBER SEEN IN EAST POLYGON IN 2014.

PLSS:	T16N, R08E, Sec. 32, NE (M)	**Accuracy:**	specific area	**Area (acres):**	10
UTM:	Zone-10 N4341513 E664058	**Latitude/Longitude:**	39.20741 / -121.0999	**Elevation (feet):**	2,320

County Summary:	**Quad Summary:**
Nevada	Grass Valley (3912121)

Sources:

KEL07S0006	KELCH, D. & G. HRUSA - KELCH #7.167 CDA #9562, CHSC #101210 & #97911, UCR #198230 2007-04-20
PRE16U0001	PRESTON, R. - CNPS RARE PLANT STATUS REVIEW FORUM POSTING FOR CAREX XEROPHILA 2016-05-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A1943
EO Index: 103487
Key Quad: Grass Valley (3912121)
Element Code: PMCYP03M60
Occurrence Number: 10
Occurrence Last Updated: 2016-09-29

Scientific Name: *Carex xerophila*
Common Name: chaparral sedge

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists:

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:

CHAPARRAL, CISMONTANE WOODLAND, LOWER MONTANE CONIFEROUS FOREST.

Micro Habitat:

SERPENTINITE, GABBROIC. 275-770 M.

Last Date Observed: 2012-05-16
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2012-05-16
Occurrence Rank: Unknown
Owner/Manager: BLM, PVT
Trend: Unknown
Presence: Presumed Extant

Location:

OSCEOLA RIDGE; ABOUT 0.6 KM NORTH OF HWY 20 AND ABOUT 4.8 KM WEST OF GRASS VALLEY.

Detailed Location:

ALONG PIPELINE "ROAD" ABOUT 180 M EAST OF SOUTH PONDEROSA WAY. MAPPED BY CNDDB BASED ON 2010 JANEWAY AND 2012 ZIKA COORDINATES IN THE SE 1/4 OF THE SE 1/4 OF SECTION 30.

Ecological:

BROAD RIDGE OF ROCKY GABBRO SOILS DOMINATED BY ARCTOSTAPHYLOS VISCIDA AND SCATTERED PINUS SABINIANA. ASSOCIATES INCLUDE SALVIA SONOMENSIS, CEANOTHUS LEMMONII, C. CUNEATUS, CERCIS, DANTHONA UNISPICATA, PERIDERIDIA BACIGALUPI, ETC.

Threats:

General:

SITE BASED ON 2010 JANEWAY AND 2012 ZIKA COLLECTIONS FROM OSCEOLA RIDGE; DESCRIBED AS "COMMON" IN 2010 AND "OCCASIONAL" IN 2012. 2008 CALLAHAN COLLECTION FROM "ALONG SOUTH PONDEROSA RD ABOUT 4 MI SOUTH OF ROUGH & READY HWY" ATTRIBUTED HERE.

PLSS: T16N, R08E, Sec. 30, SE (M)
Accuracy: specific area
Area (acres): 9
UTM: Zone-10 N4342172 E662632
Latitude/Longitude: 39.21361 / -121.11625
Elevation (feet): 2,370

County Summary:	Quad Summary:
Nevada	Grass Valley (3912121)

Sources:

CAL08S0001	CALLAHAN, K. - CALLAHAN #8 CHSC #100810, JEPS #116664 2008-04-19
JAN10S0005	JANEWAY, L. ET AL. - JANEWAY #9981 CHSC #105481 2010-05-31
ZIK12S0005	ZIKA, P. & L. JANEWAY - ZIKA #25872 JEPS #122425, UCR #263356, RSA #830984 2012-05-16

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	50474	**EO Index:**	50474
Key Quad:	Grass Valley (3912121)	**Element Code:**	PMCYP0N080
Occurrence Number:	5	**Occurrence Last Updated:**	2019-01-11

Scientific Name: *Rhynchospora capitellata* **Common Name:** brownish beaked-rush

Listing Status: **Federal:** None **Rare Plant Rank:** 2B.2

State: None **Other Lists:**

CNDDB Element Ranks: **Global:** G5

State: S1

General Habitat:

LOWER MONTANE CONIFEROUS FOREST, MEADOWS AND SEEPS, MARSHES AND SWAMPS, UPPER MONTANE CONIFEROUS FOREST.

Micro Habitat:

MESIC SITES. 45-1710 M.

Last Date Observed:	1973-07-23	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1973-07-23	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

NORTHWEST CORNER OF FAIRGROUNDS, "NEVADA CITY."

Detailed Location:

MARSHY AREA ALONG HWY 20. MAPPED BY CNDDB AS BEST GUESS AROUND COUNTY FAIRGROUNDS.

Ecological:

WITH THE RARE SIDALCEA STIPULARIS.

Threats:

General:

NEVADA COUNTY FAIRGROUNDS ARE IN GRASS VALLEY. LOCATION ORIGINALLY CITED IN "FOUR SEASONS" ARTICLE WHICH IS CITED BY SOURCE. 1973 TRUE COLLECTIONS FROM "SCADDEN FLAT, JUST W OF GRASS VALLEY, AT HEAD OF SQUIRREL CREEK" ATTRIBUTED HERE.

PLSS:	T16N, R08E, Sec. 33, NE (M)	**Accuracy:**	1/5 mile	**Area (acres):**	0
UTM:	Zone-10 N4341493 E665744	**Latitude/Longitude:**	39.20691 / -121.08038	**Elevation (feet):**	

County Summary:	**Quad Summary:**
Nevada	Grass Valley (3912121)

Sources:

TRU73S0003	TRUE, G. - TRUE #7615 SD #131004, CAS #856797, CAS-BOT-BC #111921 1973-07-23
TRU73S0012	TRUE, G. - TRUE #7590 CAS #835449, CAS-BOT-BC #111920 1973-06-19
USF98U0001	U.S. FOREST SERVICE - DRAFT REGION 5 USFS SENSITIVE PLANT SPECIES EVALUATION AND DOCUMENTATION FORM 1998-11-17

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	83108	**EO Index:**	84104
Key Quad:	Grass Valley (3912121)	**Element Code:**	PMJUN013E0
Occurrence Number:	3	**Occurrence Last Updated:**	2011-06-24

Scientific Name: *Juncus digitatus* **Common Name:** finger rush

Listing Status: **Federal:** None **Rare Plant Rank:** 1B.1

State: None **Other Lists:**

CNDDB Element Ranks: **Global:** G1

State: S1

General Habitat:

CISMONTANE WOODLAND (OPENINGS), LOWER MONTANE CONIFEROUS FOREST (OPENINGS), VERNAL POOLS.

Micro Habitat:

IN FULL SUN, IN THE VERNALLY DAMP GROUND OF SEEPS, VERNAL POOLS AND SWALES ON GENTLE SLOPES OVER VOLCANIC BEDROCK. 600-790 M.

Last Date Observed:	2011-06-01	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2011-06-01	**Occurrence Rank:**	Excellent
Owner/Manager:	NEVADA IRRIGATION DIST	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

JUST SE OF THE INTERSECTION OF IDAHO MARYLAND ROAD AND BRUNSWICK ROAD, GRASS VALLEY.

Detailed Location:

MAPPED IN THE WEST 1/2 OF THE NE 1/4 OF SECTION 25 ACCORDING TO 2011 BRONNY COORDINATES.

Ecological:

OPEN CHAPARRAL HABITAT SURROUNDED BY MIXED OAK / CONIFER WOODLAND ON A LOW GRADIENT, NORTH-FACING, VERNALLY MOIST HILLSLOPE. SANDY CLAY LOAM SOIL SUBSTRATES UNDERLAIN BY GRANITIC BEDROCK 6-13" BELOW SURFACE. MIX OF UPLAND / HYDROPHYTES.

Threats:

INFRASTRUCTURE DEVELOPMENT PROJECTS AND ALTERATION OF UPSLOPE MICRO-WATERSHED HYDROLOGY ARE THREATS.

General:

APPROXIMATELY 20,000 PLANTS OBSERVED IN 2011. ID CONFIRMED BY CAROL WITHAM AND ELLEN DEAN.

PLSS:	T16N, R08E, Sec. 25, NE (M)	**Accuracy:**	80 meters	**Area (acres):**	0
UTM:	Zone-10 N4343453 E670390	**Latitude/Longitude:**	39.22366 / -121.02610	**Elevation (feet):**	2,620

County Summary:	**Quad Summary:**
Nevada	Grass Valley (3912121)

Sources:

BRO11F0006	BRONNY, C. - FIELD SURVEY FORM FOR JUNCUS DIGITATUS 2011-04-23
BRO11I0001	BRONNY, C. - PHOTOS OF JUNCUS DIGITATUS, CALPHOTOS ID #0000 0000 0511 1896 & 1897 2011-05-25
BRO11I0002	BRONNY, C. - PHOTO OF JUNCUS DIGITATUS, CALPHOTOS ID #0000 0000 0611 0029 2011-06-01

IPaC U.S. Fish & Wildlife Service

IPaC resource list

DOI security policy now requires that IPaC accounts be disabled after 90 days of inactivity. To prevent this from happening, please log into your IPaC account at least once every 90 days. Should your account become disabled, an email will be sent to you with instructions on how to reset it. ×

This re ...abitat (collec ... jurisdi ...The list may al ...ially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

NOT FOR CONSULTATION

Location

Nevada County, California

Local office

Sacramento Fish And Wildlife Office

(916) 414-6600
(916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information.
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Amphibians

NAME	STATUS

NOT FOR CONSULTATION

California Red-legged Frog Rana draytonii — Threatened
There is **final** critical habitat for this species. Your location is outside the critical habitat.
https://ecos.fws.gov/ecp/species/2891

Fishes

NAME	STATUS
Delta Smelt Hypomesus transpacificus There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/321	Threatened

Flowering Plants

NAME	STATUS
Pine Hill Flannelbush Fremontodendron californicum ssp. decumbens **No critical habitat has been designated for this species.** https://ecos.fws.gov/ecp/species/4818	**Endangered**
Stebbins' Morning-glory Calystegia stebbinsii **No critical habitat has been designated for this species.** https://ecos.fws.gov/ecp/species/3991	**Endangered**

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

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Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

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NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)
Cassin's Finch Carpodacus cassinii This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9462	Breeds May 15 to Jul 15

Lewis's Woodpecker Melanerpes lewis — Breeds Apr 20 to Sep 30
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9408

Olive-sided Flycatcher Contopus cooperi — Breeds May 20 to Aug 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3914

Rufous Hummingbird selasphorus rufus — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/8002

Willow Flycatcher Empidonax traillii — Breeds May 20 to Aug 31
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/3482

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence ( )

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

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3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

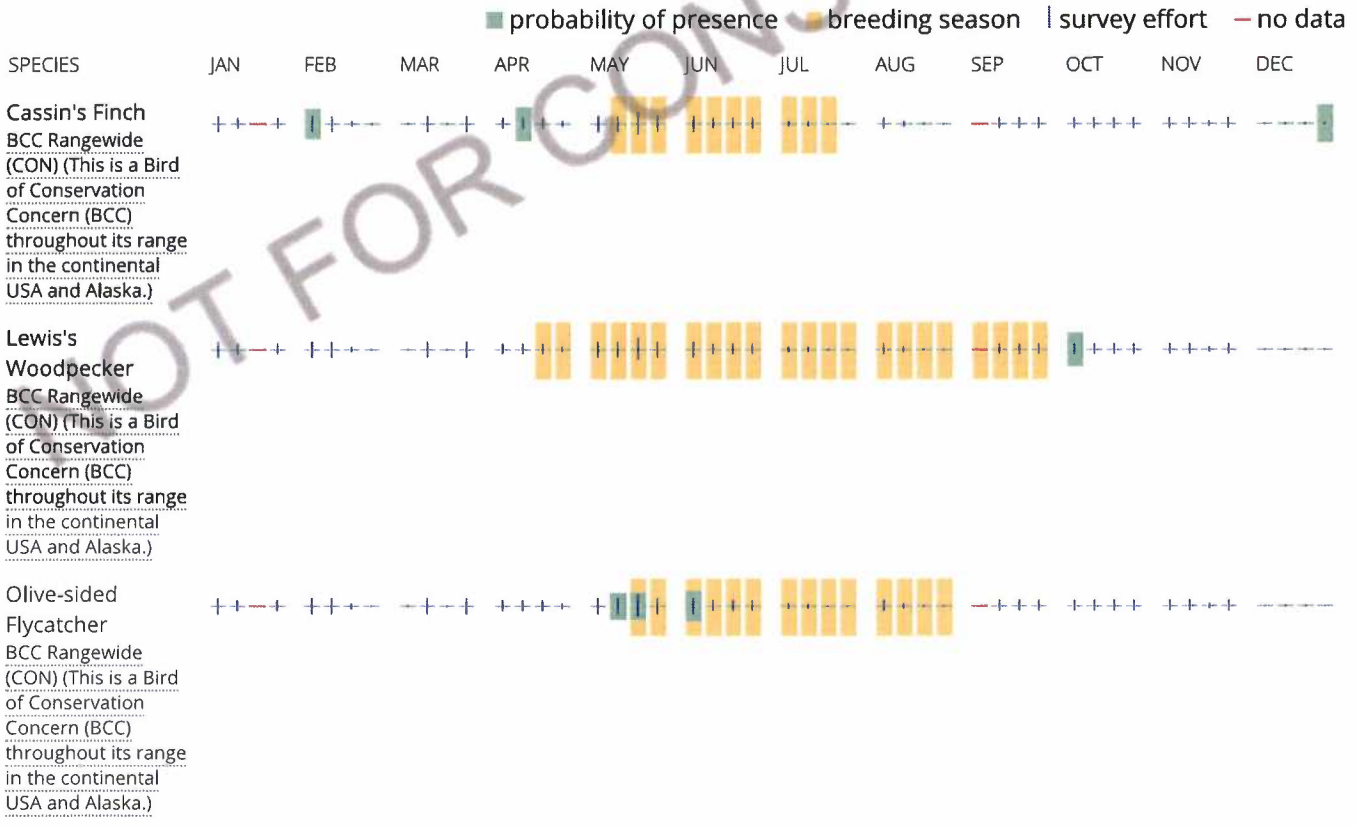
Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



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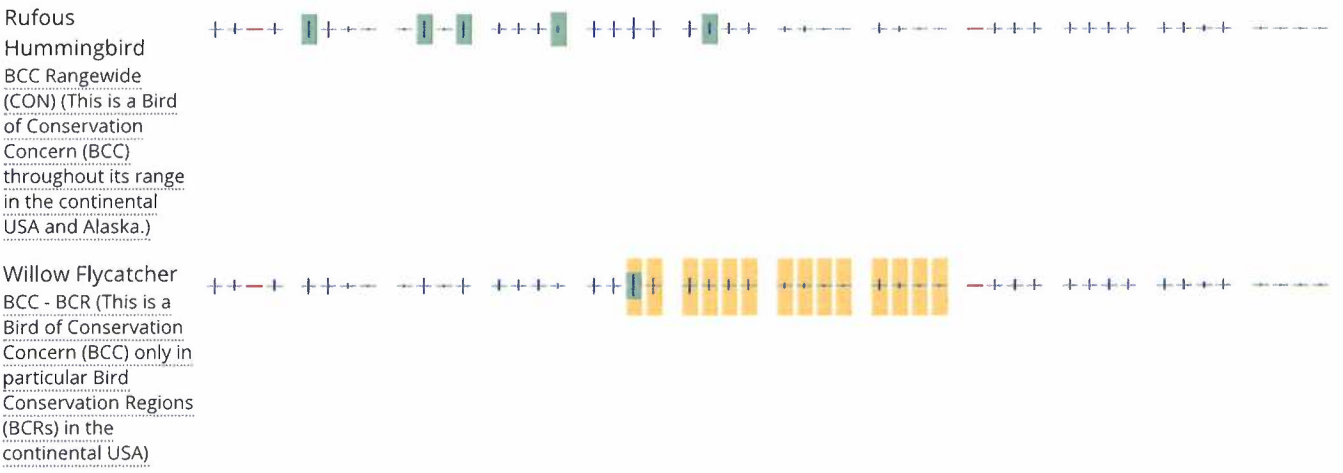

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures and/or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

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To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to

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confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

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Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

RIVERINE

R4SBC

A full description for each wetland code can be found at the National Wetlands Inventory website

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error

is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

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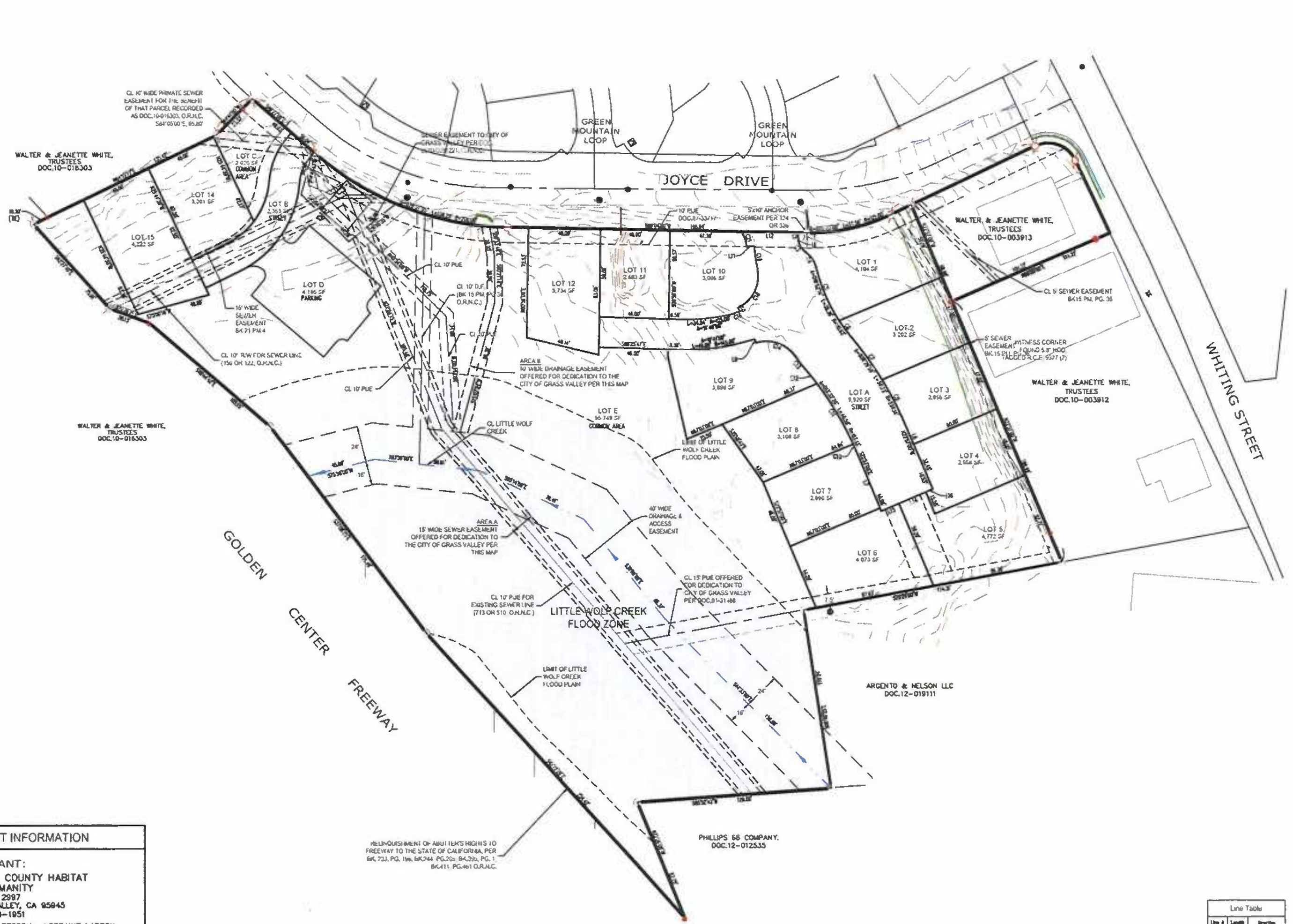
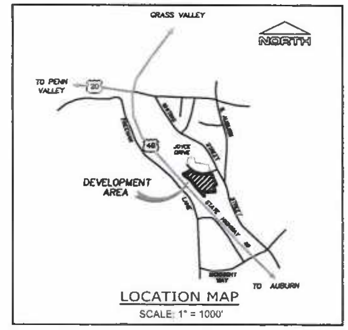
Appendix H

Tentative Map





PROJECT INFORMATION

APPLICANT:
NEVADA COUNTY HABITAT FOR HUMANITY
P.O. BOX 2997
GRASS VALLEY, CA 95945
(530) 274-1951
CONTACT PERSON: LORRAINE LARSON

PLANNING & ENGINEERING:
SCO PLANNING & ENGINEERING, INC.
140 LITTON DRIVE SUITE 240
GRASS VALLEY, CA 95945
(530) 272-5841
10800 DONNER PASS ROAD, SUITE 302
TRUCKEE, CA 96161
(530) 582-4043
CONTACT PERSON: MARTIN D. WOOD P.L.S.

ASSESSOR'S PARCEL:
029-280-016-000

LAND AREA:
TOTAL AREA: 3.74 ACRES

FIRE PROTECTION:
GRASS VALLEY FIRE PROTECTION DISTRICT

WATER:
CITY OF GRASS VALLEY

SEWAGE DISPOSAL:
CITY OF GRASS VALLEY

ELECTRICAL/NATURAL GAS:
PACIFIC GAS AND ELECTRIC

TELEPHONE:
A.T&T.

LEGEND

- ● - FOUND AS NOTED
- SET 5/8" REBAR W/ CAP STAMPED "P.L.S. 4321", OR AS NOTED
- ○ - NOTHING FOUND, NOTHING SET
- (O.A.) - OVERALL
- (1) - RECORD DATA PER 16 / PM / 116 O.R.N.C.
- (2) - RECORD DATA PER 15 / PM / 36 O.R.N.C.

BASIS OF BEARING

THE MERIDIAN FOR THIS SURVEY IS BASED UPON FOUND MONUMENTS AS SHOWN IN BOOK 16 OF PARCEL AT PAGE 116.

EASEMENT NOTE:

AN EASEMENT FOR POLE LINES AND WIRES FOR BAY COUNTIES POWER COMPANY EXISTS BUT UNLOCATABLE FROM RECORD INFORMATION, PER BK. 106, PG. 476, BK. 121, PG. 136 O.R.N.C.

BEING A DIVISION OF PARCEL 2 OF PARCEL MAP #____, RECORDED IN BOOK __ OF PARCEL MAPS, PAGE __, OFFICIAL RECORDS, NEVADA COUNTY; SITUATE IN A PORTION OF SECTION 34, T.16N., R.8E., M.D.M., IN THE INCORPORATED CITY OF GRASS VALLEY, COUNTY OF NEVADA AND THE STATE OF CALIFORNIA

Line Table		
Line #	Length	Direction
L1	0.50'	N 75°16'02" E
L6	10.53'	S 22°53'00" E
L7	40.98'	N 22°53'00" W
L9	2.83'	N 30°07'45" W
L10	2.85'	S 34°45'30" E
L11	5.00'	N 84°40'30" E
L12	37.00'	N 89°04'00" W
L14	[illegible]	N 47°45'00" E
L15	12.83'	S 47°45'00" W
L16	5.20'	S 47°45'00" W

Curve Table			
Curve #	Length	Radius	Delta
C1	5.34'	12.87'	23°47'28"
C3	8.17'	13.30'	35°14'22"
C4	12.82'	17.85'	41°08'28"
C5	38.38'	110.82'	19°32'14"
C6	13.85'	110.82'	7°35'38"
C7	34.75'	234.14'	8°30'36"
C8	36.81'	234.14'	9°37'26"
C10	3.42'	107.13'	1°37'38"
C11	48.38'	107.13'	15°21'28"
C12	10.82'	107.13'	2°34'40"
C13	13.47'	147.83'	5°13'47"
C14	28.10'	23.00'	72°25'37"
C15	4.78'	23.83'	10°28'31"
C16	30.74'	23.00'	78°34'44"
C18	15.51'	147.83'	6°01'38"
C20	10.08'	22.00'	27°46'33"

NEVADA COUNTY HABITAT FOR HUMANITY
HERITAGE OAKS - PHASE 2
TENTATIVE MAP
CITY OF GRASS VALLEY
CALIFORNIA

DESIGNED: MDW
DRAWN: MDW/KST
PROJ. NO: 201806
DWG: SEE PLOT STAMP
DATE: MAY 2019

NO.	REVISIONS	DATE

SCO PLANNING ENGINEERING & SURVEYING