MIT Farms, LLC Cannabis Cultivation Project

(APN: 136-071-002, -003)

Biological Resources Assessment

Prepared for:
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22430 & 22368 Jerusalem Grade
Middletown, CA 95461

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Appendices

1.0 INTRODUCTION

Greg Matuzak, a California Department of Fish and Wildlife (CDFW) and United States Fish and Wildlife Service (USFWS) Qualified Biologist conducted a reconnaissance-level biological resources survey and required background research related to sensitive biological resources in order to develop this Biological Resources Assessment (BRA). In addition, CDFW, USFWS, and United States Army Corps of Engineers (Corps) jurisdiction within the subject parcels was assessed. MIT Farms, LLC is seeking a Major Use Permit from the County of Lake for a proposed A – Type 3 "Medium Outdoor" commercial cannabis cultivation operation (Project). The proposed Project is located at 22368 & 22430 Jerusalem Grade near Middletown and Lower Lake, California. The subject parcels are identified by Lake County under APNs 136-071-02 & 03 (Project Property). See attached Appendix A for a Project Vicinity and Project Location map detailing the regional location of the Project area and the subject parcels/Project area with a recent aerial photograph background.

The 37-acre RL-zoned Project Property is located approximately 7.5 miles southeast of the community of Lower Lake, CA, at the northern end of Jerusalem Valley and within the Soda Creek Watershed (HUC12). The Project Property is accessed via a shared private gravel access road off of Jerusalem Grade. The proposed cultivation areas and ancillary facilities will be accessed via private gravel roads off of the shared private gravel access road. Locking metal gates across the private gravel access roads will control access to the proposed cultivation operation. The Project Property was severely burned by the Hennessey Fire (part of the LNU Lightning Complex) in August of 2020.

Soda Creek, an intermittent Class I watercourse, flows from north to south through the Project Property. Multiple unnamed ephemeral and intermittent watercourses flow through the Project Property into Soda Creek. No cannabis cultivation activities nor agricultural chemicals storage would occur within 100 feet of any surface waterbody (see Appendix B for a Site Plan with the proposed areas of grading and disturbance as well as the locations Soda Creek and other streams and drainage features located within the Project area).

Project Description

The proposed commercial cannabis cultivation operation would be composed of three fenced outdoor cultivation areas, with up to 42,066 ft2 of combined cannabis canopy. Proposed ancillary facilities include four 5,000-gallon water storage tanks, a 120 square foot Pesticides & Agricultural Chemicals Storage Area, and a 120 square foot Security Center/Shed. The Project Property has been enrolled for coverage under the State Water Resources Control Board's Cannabis General Order (WQ-2019-0001-DWQ) since October 30th, 2020 (WDID: 5S17CC429330).

All water for the proposed cultivation operation will come from two onsite groundwater wells (no surface water diversions associated with the proposed cultivation operation). Irrigation water from the onsite groundwater wells will be stored within four 5,000-gallon heavy-duty plastic water storage tanks and delivered to the proposed cultivation areas via polyvinyl chloride (PVC) piping.

The proposed outdoor cultivation areas would be enclosed with 6-foot tall galvanized woven wire fencing, covered with privacy screen/mesh where necessary to screen the canopy areas from public view. Metal gates secured with commercial-grade locks would be used to control access to the proposed outdoor cultivation areas. The growing medium of the proposed outdoor cultivation areas would be an imported organic soil mixture in above ground garden beds. Drip irrigation systems would be used deliver water to the proposed garden beds/canopy areas.

All cannabis waste generated from the proposed cultivation operation would be chipped and composted onsite. Composted cannabis waste would be stored in a designated composting area, until it is incorporated into the growing medium of the cultivation areas, as an organic soil amendment. All solid waste will be stored in bins with secure fitting lids until being disposed of at the Eastlake Landfill, at least once a week during the cultivation season. All agricultural chemicals (fertilizers, amendments, pesticides, and petroleum products) will be stored within the proposed Pesticide & Agricultural Chemicals Storage Area. Only pesticides approved by the California Department of Pesticide Regulation and/or the California Department of Food and Agriculture for use on cannabis would be used.

The proposed cultivation operation will adhere to the inventory tracking and recording requirements of the California Cannabis Track-and-Trace (CCTT) system. All staff will be trained in the requirements of the CCTT system, and a member of the managerial staff will be the designated track-and-trace system administrator. The designated track-and-trace system administrator will complete an initial training provided by the California Department of Cannabis Control and will participate in ongoing training as required. All cannabis transfers/movement will be reported through the CCTT system, and a track-and-trace system administrator will supervise all tasks with high potential for diversion/theft.

Purpose of the Biological Resources Assessment

For the purposes of this BRA, the background research and the site visit, and the implementation of a reconnaissance-level biological resources survey conducted within the Project area were intended to determine the potential for sensitive biological resources to occur within the subject parcels and overall Project area. Based on the background and site-specific information identified for the Project area, an assessment of such sensitive biological resources was conducted to ensure the proposed Project complies with local, state, and federal regulations governing cannabis cultivation projects and the protection of sensitive and protected biological resources, including local Lake

County ordinances and policies and for California Environmental Quality Act (CEQA) compliance with the state. The attached appendices include the following: Project Vicinity and Project Location maps, a Site Plan, Photo Log of the Project area and overall subject parcels, list of plant and wildlife species identified during the site visit and reconnaissance-level biological resources survey conducted, and the results of the database searches for such sensitive biological resources per the CA State and federal databases. The appendices are attached to this BRA report.

The purpose of the BRA is to identify the location and extent of sensitive biological resources within the subject parcels, including special-status plant and wildlife species, and the presence of drainage and wetland features that could potentially meet the Corps' criteria as a "waters of the United States," pursuant to Section 404 of the Clean Water Act (CWA), and streams that could be under the jurisdiction of the California Fish and Wildlife Code Section 1600 *et. seq*. The BRA also satisfies the Lake County Development Code and General Plan and CEQA requirements as they pertain to the proposed Project.

2.0 REGULATORY OVERVIEW AND DEFINITIONS

Federal Regulations

Section 404 of the Clean Water Act

The U.S. 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. "Waters of the U.S." 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" as specified in 33 Code of Federal Regulations [CFR] 328.3, 40 CFR 230.3.

Generally, wetlands include swamps, marshes, bogs, and similar areas. Lakes, rivers, and streams are defined as "other waters of the U.S." Jurisdictional limits of these features are typically noted by the Ordinary High Water Mark ("OHWM"). The OHWM is the line on the shore established by the fluctuations of water and indicated by physical characteristics such as mark a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas (33 CFR 328 and 33 CFR 329).

Isolated ponds or seasonal depressions had been previously regulated as waters of the U.S. However, in *Solid Waste Agency of Northwestern Cook County* (SWANCC) *v. USACE et al.* (January 8, 2001), the U.S. Supreme Court ruled that certain "isolated" wetlands (e.g., non- navigable, isolated, and intrastate) do not fall under the jurisdiction of the CWA and are no longer under the jurisdiction of the Corps. Some circuit courts (e.g., *U.S. v. Deaton*, 2003; *U.S. Rapanos*, 2003; *Northern California River Watch v. City of Healdsburg*, 2006), though, have ruled that SWANCC does not prevent CWA jurisdiction if a "significant nexus" such as a hydrologic connection exists, whether it be man-made (e.g., roadside ditch) or natural tributary to navigable waters, or direct seepage from the wetland to the navigable water, a surface or underground hydraulic connection, an ecological connection (e.g., the same bird, mammal, and fish populations are supported by both the wetland and the navigable water), and changes to chemical concentrations in the navigable water is present due to water from the wetland.

Areas considered to be non-jurisdictional waters include non-tidal drainage and irrigation ditches excavated on dry land, artificially-irrigated areas, artificial lakes or ponds used for irrigation or stock watering, small artificial water bodies such as swimming pools, and water-filled depressions with no outlet for drainage (33 CFR, Part 328).

The *Clean Water Rule* is a 2015 regulation published by the EPA and Corps to clarify water resources management in the United States under a provision of the CWA. The regulation defined the scope of federal water protection in a more consistent manner, particularly over streams and wetlands, which have a significant hydrological and ecological connection to traditional navigable waters, interstate waters, and territorial seas. It is also referred to as the *Waters of the United States* rule, which defines all bodies of water that fall under U.S. federal jurisdiction. The rule has been contested in litigation and in 2017 the Trump administration announced its intent to review and rescind or revise the rule. Following a Supreme Court ruling on January 22, 2018 that lifted a nationwide stay on the rule, the Trump administration formally suspended the rule until February 6, 2020, thereby giving the EPA time to issue a draft proposal of replacement water regulatory requirements.

On October 22, 2019, the EPA and the Corps published a final rule to repeal the 2015 Clean Water Rule: Definition of "Waters of the United States" ("2015 Rule"), which amended portions of the Code of Federal Regulations (CFR), and to restore the regulatory text that existed prior to the 2015 Rule. The final rule will become effective on December 23, 2019. The EPA and the Corps will implement the pre-2015 Rule regulations informed by applicable agency guidance documents and consistent with Supreme Court decisions and longstanding agency practice.

However, on April 21, 2020, the EPA and the Corps published the Navigable Waters Protection Rule to define "Waters of the United States" in the *Federal Register*. For the first time, the agencies have streamlined the definition so that it includes four simple categories of jurisdictional waters, provides clear exclusions for many water features that traditionally have not been regulated, and defines terms in the regulatory text that have never been defined before. Congress, in the CWA, explicitly directed the Agencies to protect "navigable waters." The Navigable Waters Protection Rule regulates traditional navigable waters and the core tributary systems that provide perennial or intermittent flow into them.

Under the final rule, four clear categories of waters are federally regulated:

- The territorial seas and traditional navigable waters,
- Perennial and intermittent tributaries to those waters,
- Certain lakes, ponds, and impoundments, and
- Wetlands adjacent to jurisdictional waters

Therefore, as of June 22, 2020, the final rule details 12 categories of exclusions, features that are not "waters of the United States," such as features that only contain water in direct response to rainfall (e.g., ephemeral features); groundwater; many ditches; prior converted cropland; and waste treatment systems. The final rule clarifies key elements related to the scope of federal CWA jurisdiction, including:

- Providing clarity and consistency by removing the proposed separate categories for jurisdictional ditches and impoundments.

- Refining the proposed definition of "typical year," which provides important regional and temporal flexibility and ensures jurisdiction is being accurately determined in times that are not too wet and not too dry.

- Defining "adjacent wetlands" as wetlands that are meaningfully connected to other jurisdictional waters, for example, by directly abutting or having regular surface water communication with jurisdictional waters.

The Navigable Waters Protection Rule is the second step in a two-step process to review and revise the definition of "waters of the United States" consistent with the February 2017 Presidential Executive Order entitled "Restoring the Rule of Law, Federalism, and Economic Growth by Reviewing the 'Waters of the United States.'" This final rule became effective on June 22, 2020 and will replaces the Step One Rule published in October, 2019 as outlined above.

However, the 2023 Updated Water of the United States (WOTUS) Rule reversed the 2020 ruling such that only perennial aquatic resources with documented connections to navigable waterways are currently regulated under the CWA. Therefore, the Project area does not contain any "waters of the U.S." including wetlands, given the lack of perennial streams or drainages with a direct connection to a navigable waterway. Therefore, the Project area does not include any waters subject to regulation under the CWA. The proposed disturbance within the subject parcels; however, would adhere to Lake County and State of California setbacks to avoid and minimize any potential impacts to such streams and drainages, which would include avoidance of direct impacts to such aquatic resources and minimization of potential indirect impacts to such aquatic resources through the adherence of the required setbacks.

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. 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. Therefore, the Project area does not include any waters subject to regulation under the CWA. The proposed disturbance within the subject parcels; however, would adhere to Lake County and State of California setbacks to avoid and minimize any potential impacts to such streams and drainages, which would include avoidance of direct impacts to such aquatic resources and

minimization of potential indirect impacts to such aquatic resources through the adherence of the required setbacks.

Endangered Species Act of 1973

For the proposed Project site, 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 federally protected species listed under the ESA previously mapped within 3 miles of the subject parcels and Project area (see assessment below and the results of CDFWS and USFWS database searches attached in Appendix G). However, the Project area does not provide suitable habitat for any of these species and therefore, ESA listed and protected species would not be impacted by the development of the proposed Project.

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.

There are State protected species listed under CESA previously mapped within 3 miles of the subject parcels and Project area (see assessment below and the results of

CDFWS and USFWS database searches attached in Appendix G). No other candidate species or CESA protected species have been documented within 3 miles of the Project area (CDFW 2023) and the Project area does not provide suitable habitat for any CESA protected species except for the CESA listed endangered foothill yellow-legged frog (*Rana boylii*). The foothill yellow-legged frog has been previously identified within Soda Creek; however, given the dry, intermittent nature of the creek it is highly unlikely the species would be found within the creek within the Project area. A 150-foot non-disturbance setback is required from the riparian zone edge of Soda Creek within the Project area such that no direct or indirect impacts to the creek would occur per the proposed Project disturbance and operations. Therefore, none of these species would be impacted by the development of the proposed Project.

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. The Project area contains Soda Creek and several other ephemeral and intermittent drainage features that would be regulated by CDFW.

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 subject parcels do contain waters of the State as defined by the State Water Resources Board (State Board 2014); however, the Project applicant will adhere to required Lake County and State of California required setbacks to such resources. Therefore, the proposed Project would not be subject to a report of waste discharge requirement.

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 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). 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 2014). 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.

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 woodland habitats are protected under both the State and the Nevada County General Plan.

Lake County Tree Protection

Lake County does not have a specific ordinance protecting native trees. However, under the Cannabis Ordinance 3084, Section 4, Subsection iii) Prohibited Activities (a) Tree Removal, Lake County restricts tree removal as follows:

> *"The removal of any commercial tree species as defined by the California Code of Regulations section 895.1, Commercial Species for the Coast Forest District and Northern Forest District, and the removal of any true oak species (Quercus species) or Tan Oak (Notholithocarpus species) for the purpose of developing a cannabis cultivation site should be avoided and minimized. This shall not include the pruning of any such tree species for the health of the tree or the removal of such trees if necessary for safety or disease concerns."*

During the permitting process, Lake County requires mitigation for the removal of protected trees; typical mitigation is tree replacement at a ratio of 2:1 or 3:1.

3.0 METHODS

In order to evaluate the subject parcels and proposed Project development areas for the presence of any sensitive biological resources, baseline information from databases and reporting for similar projects in Lake County and northern California was collected and reviewed prior to conducting the reconnaissance-level field biological survey of the entirety of the subject parcels. The database searches, background research, and habitat level field survey characterized the baseline conditions of the subject parcels and proposed Project development areas within the subject parcels.

Based on the baseline conditions of the subject parcels and the proposed development outlined within the Project Description outlined above in Section 1 of this BRA and within the attached Site Plan (Appendix B), an assessment was implemented to determine if any special-status plant or wildlife species have the potential to use the subject parcels and overall Project development areas within the subject parcels 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 subject parcels and the overall Project development areas within the subject parcels.

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 subject parcels and Project development areas within the subject parcels:

- California Department of Fish and Wildlife's California Natural Diversity Database records search of 3-mile buffer around the Project area and updated species list for both the Middletown and Jericho Valley USGS Quads (CDFW, 2023);

- The California Native Plant Society's online Inventory of Rare and Endangered Plants of California for both the Middletown and Jericho Valley USGS Quads (CNPS, 2023);

- The U.S. Fish and Wildlife Service list of endangered, threatened, and proposed species for the Project area (USFWS, 2023);

- National Wetland Inventory and National Hydrography Database (NWI and NHD, 2023);

- United States Department of Agriculture (USDA) Soils Mapper (USDA, 2023);

- Natural Resources Conservation Service (NRCS) Hydric Soils List for Lake County (NRCS, 2023); and

- Lake County General Plan and Cannabis Ordinance 3084 (Lake County).

Reconnaissance-level Biological Resources Field Survey

A reconnaissance-level biological field survey was conducted on foot of the entire 37-acres making up the subject parcels by Greg Matuzak, Principal Biologist with Greg Matuzak Environmental Consulting. Mr. Matuzak is a Qualified Biologist with both CDFW and USFWS and has conducted similar assessments of sensitive biological resources within Lake County and several other neighboring counties in northern California.

The site visit and biological resources reconnaissance-level survey of the two parcels was conducted on September 2, 2022. Given the timing of the site visit and biological resources reconnaissance-level survey, many of the species with potential to occur within the Project area having blooming periods in the spring and early summer periods and therefore, would not be identifiable in early September. Therefore, the biological resources reconnaissance-level survey is not considered comprehensive in nature as to completely rule out the potential presence of some special-status species within the Project area. The assessment below as well as the impact analysis and proposed mitigation measures outline the process to ensure any such species are evaluated, and if they are present, any potential impact to them would be avoided, minimized, and/or mitigated to a level of less than significant under CEQA.

A Photo Log is included in the attachments, which documents the subject parcels and proposed areas of development during the site visit and field survey. Additionally, attached to Appendix E is a list of plant and wildlife species observed during the September 2, 2022 site visit and reconnaissance-level survey of the two parcels.

4.0 RESULTS

Environmental Setting

The 37.39 acres covering both parcels (Project area) lie in the Mayacamas Mountains within Lake County. The general topography of the subject parcels is characterized by higher elevations to the west and to the east of Soda Creek that flows north to south within the central portion of the subject parcels. The average elevation within the subject parcels is approximately 1,000 feet above mean sea level (MSL) with the northeastern corner of the subject parcels at approximately 1,125 feet above MSL being the highest point in the Project area and the lowest point in the Project area being located along the southern boundary within Soda Creek at approximately 950 feet above MSL.

Given the steep slopes on both the western and eastern sides of Soda Creek, the general topography creates drier upslope areas where any precipitation quickly flows downslope eventually entering into Soda Creek. Therefore, the general vegetation within the Project area is considered normal for the overall Project area and is dominated by more arid vegetation types, including non-native annual grasslands and chaparral.

Precipitation, primarily as rainfall is the major source of inflow to the Clear Lake area. Though there are no climate stations on the Project site or in the immediate vicinity. It is estimated that the seasonal precipitation for the Project site is 38-inches/year (3.17 feet/year) based on data from Middletown. With this precipitation rate it can be reasonably expected that the average annual precipitation equates to 118.53 acre-feet over the entire 37.39-acre subject parcels/Project area (Hurvitz Environmental Services Inc. 2023).

<u>Drainage and Aquatic Resources</u>

There are drainages and streams mapped within the National Wetland Inventory (NWI) and National Hydrography Database (NHD) within and immediately adjacent to the subject parcels (see attached NWI and NHD map in the Appendix D). Soda Creek, an intermittent Class I watercourse, flows from north to south through the Project Property. Multiple unnamed ephemeral and intermittent watercourses flow through the Project area ultimately into Soda Creek. Each of the ephemeral and intermittent watercourses within the subject parcels are mapped within the attached Site Plan in Appendix B and the required setbacks to each of them is identified within the Site Plan.

Given Soda Springs is the lowest topographical point within the subject parcels, drainage within the Project area and subject parcels drains into Soda Creek from the north, west, and east and Soda Creek continues to the south of the subject parcels and

Project area. Drainage features that intersect or that are proximate to the Project area have likely eroded through some of the overlying layers and are contributing to the recharge of the Project area's aquifer through the stream bottom (Soda Creek). However, it is also likely that a significant portion of the rainwater falling directly on the Project site infiltrates the ground surface and migrates downward through the soil matrix and recharges the relatively shallow aquifer (Hurvitz Environmental Services Inc. 2023).

No cannabis cultivation activities nor agricultural chemicals storage would occur within 100 feet of any surface waterbody and the Class I Soda Springs will maintain a 150-foot setback to proposed Project related disturbances given the presence of a very narrow riparian zone along both edges of Soda Creek within the Project area. The table below outlines the State of California requirements for setbacks to streams, drainages, and associated riparian zones. The Project applicant will adhere to these setbacks and the watercourse class and setbacks to each drainage and stream within the Project area are included and mapped within the attached Site Plan (see Appendix B).

Minimum Riparian Setbacks

Common Name	Watercourse Class	Distance
Perennial watercourses, waterbodies (e.g. lakes, ponds), or springs	I	150 ft.
Intermittent watercourses or wetlands	II	100 ft.
Ephemeral watercourses	III	50 ft.
Man-made irrigation canals, water supply reservoirs, or hydroelectric canals that support native aquatic species	IV	Established riparian zone vegetation

Soil Types Mapped within the Project Area

Three soil types were identified within the subject parcels with Millsholm-Bressa loams, 30 to 50 percent slopes soils being the dominant soil type within the central section of the Project area where the proposed cannabis cultivation site #1 is located. Maymen-Millsholm-Bressa complex, 30 to 50 percent slopes soils are mapped within the eastern section of the Project area and within the proposed cannabis cultivation site #2. Skyhigh-Millsholm loams, 15 to 50 percent slopes soils are mapped within the western section of the Project area and west of Soda Creek; therefore, there is no proposed Project related disturbance within that soil type.

None of these soil types are listed within the NRCS Hydric Soils List for Lake County. Mapped hydric soils can identify potential soils that associate with wetlands and other aquatic resources; however, given the ephemeral and arid nature of the Project area, water quickly evaporates and runs offsite to the south through Soda Creek. Therefore, sufficient time for the development of hydric soils and other characteristics associated with wetlands and wetland hydrology does not occur within the Project area and thus the existing soil types are common in the region for upland and non-hydric soils. See the attached soils map in Appendix C.

Plant Communities

Plant communities have been classified based on the California Wildlife Habitat Relationships System developed by the California Department of Fish and Wildlife (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 E.

The subject parcels contain the following terrestrial vegetation communities: Disturbed, Annual Grassland, Chaparral, Oak – Pine Woodland, and Riparian. These vegetation communities are discussed here.

<u>Disturbed Habitat</u>

These areas consist of disturbed or converted natural habitat that are now either in a ruderal (constantly disturbed) state, or dirt roads, or utility placement. These areas include existing roads and areas containing Ag wells and water storage infrastructure. Vegetation within this habitat type consists primarily of non-native invasive species lacking a consistent community structure. This habitat type provides limited resources for wildlife and is utilized primarily by species tolerant of human activities. The disturbed and altered condition of these lands greatly reduces their habitat value and ability to sustain rare plants or diverse wildlife assemblages.

<u>Non-Native Annual Grasslands</u>

Much of the central and eastern portions of the overall Project area where both the proposed cannabis cultivation site #1 and proposed cannabis cultivation site #2 will be located area characterized by seasonal, herbaceous vegetation. This vegetation dominates the areas along Soda Creek and extend into the uplands and hills to the east of the creek and east of the proposed cannabis cultivation sites.

The annual grassland habitat is comprised largely of non-native annual grasses and native herbs with some native perennial grasses also important. Plants common in this habitat type include wand tarplant (*Holocarpha virgata*), wild oat (*Avena barbata*),

filaree (*Erodium* spp.), star thistle (*Centaurea solstitialis*), bromes (*Bromus* spp.), winter vetch (*Vicia villosa*), lupine (*Lupinus* spp.), blue wild rye (*Elymus glaucus*), bull thistle (*Cirsium vulgare*), Italian thistle (*Carduus pycnocephalus*), tall sock destroyer (*Torilis arvensis*) and various other species.

Chaparral

Shrub dominated vegetation can be found within the higher elevations to the east of the proposed cannabis cultivation sites and along west and south-facing slopes of the subject parcels. The dominant species within the chaparral are chamise (*Adenostoma fasciculatum*), manzanita (*Arctostaphylos* spp.), deerbrush (*Ceanothus integerrimus var. macrothyrsus*), buckbrush (*Ceanothus* cuneatus), coyote brush (*Baccharis pilularis*), poison oak (*Toxicodendron diversilobum*), toyon (*Heteromeles arbutifolia*) and yerba santa (*Eriodictyon californicum*). Grasses and herbs are relatively common in the understory as the chaparral recovers from the Hennessey Fire (part of the LNU Lightning Complex) in August of 2020. This vegetation type can be classified as Chamise Chapparal.

Oak – Pine Woodland

Found along the hills and slopes throughout the western portion of the Project area and subject parcels is habitat dominated by oak and pine trees. The mixed oak/pine woodland consists of an open canopy of blue oak (*Quercus douglasii*) and foothill pine (*Pinus sabiniana*) with an understory of shrubs including common manzanita, ceanothus, toyon, poison oak, grasses, and herbs. Much of the woodland habitat is recovering from the 2020 fire. This vegetation can be classified as Blue Oak - Foothill Pine. No proposed disturbance is located to the west of Soda Creek and within this habitat type. Therefore, the proposed Project would have no impact on any tree species, including the pine and oak species associated with this woodland habitat.

Drainage Features and Riparian and Wetland Vegetation

A narrow band of riparian habitat can be found along the edges of the channel of Soda Creek, following a north to south flow within the central section of the Project area and subject parcels. The riparian vegetation consists of a sparse array of red willow (*Salix laevigata*), arroyo willow (*Salix lasiolepis*), Fremont's cottonwood (*Populus fremontii*) with a shrub layer of snowberry (*Symphoricarpos mollis*), California blackberry (*Rubus ursinus*), and poison oak with an understory of grasses and other herbs.

The riparian zone along Soda Creek is in a very sparse and narrow section along both sides of the Soda Creek where scouring from high flows and the deep, incised channel in some places has not left the edges of the creek with little to no vegetation. There is no wetland associated vegetation within or along Soda Creek or within the subject parcels as a whole. Though Soda Creek is defined as an intermittent Class I

stream given the sparse array of scattered willow shrubs, the creek includes an intermittent flow during and after precipitation events within the creek's watershed. See the attached Photo Log (Appendix F) showing the dry Soda Creek streambed within the subject parcels during the September 2, 2022 site visit and survey and notice the dry and rocky nature of the creek and adjacent upland areas to it. The attached Site Plan in Appendix B details the locations of Soda Creek and the other ephemeral and intermittent drainage features within the Project area along with their required setbacks.

Protected Trees by Lake County

Except for a few scattered trees within the eastern section of the Project area, Blue Oak - Foothill Pine is the dominant habitat type within the western section of the subject parcels. No proposed disturbance is located to the west of Soda Creek and within this habitat type, and none of the scattered trees located east of Soda Creek will be removed. Therefore, the proposed Project would have no impact on any tree species, including the pine and oak species associated with this woodland habitat. Tree removal permitting and mitigation through Lake County will not be required as part of the review and approval process of the proposed Project.

SPECIAL STATUS SPECIES

Special-status species considered for this BRA is based on a current review of the California Natural Diversity Data Base (CNDDB) and database information provided by the USFWS and the California Native Plant Society (CNPS). The following reviews were implemented as part of the development of this BRA:

- Current CNDDB map containing previously identified locations of special-status species was developed for the Project area and a buffer of 3 miles from the Project area;
- USFWS IPaC review of the Project area; and
- CNDDB and CNPS review of special-status plant and wildlife species previously documented within the Middletown and Jericho Valley USGS Topo Quads where the subject parcels are located.

See Appendix G for the CNDDB mapping and special-status species lists for the subject parcels and proposed Project covered under this BRA.

The CNDDB map of the Project area identified a total of thirteen (13) special-status species previously identified and mapped within 3 miles of the subject parcel. The database searches covering both the Middletown and Jericho Valley USGS Topo Quads where the Project is located, included an additional twenty-nine (29) species that have been identified by the USFWS and/or CDFW as special-status species or have been ranked by CNPS as List 1 or List 2 species. Several additional plant species were identified by CNPS and within the CNDDB lists covering both the Middletown and Jericho Valley USGS Topo Quads where the Project is located as CNPS List 3 and 4 species.

Based on the California Environmental Quality Act (CEQA) Guidelines Section 15380 (see Section 2.0 above for details), provides a legal framework that only impacts to CNPS Ranks 1 and 2 species would therefore be considered "significant" requiring mitigation. Therefore, Project related impacts to CNPS List 3 and 4 species would not be considered "significant" and therefore, would not require mitigation measures to reduce a significant impact to such CNPS List 3 and 4 species to a less than significant level. These species (CNPS List 3 and 4 species) are watchlist species and do not need to be discussed formally as part of any CEQA analysis. Therefore, the CNDDB and CNPS lists attached in Appendix G contain several additional CNPS List 3 and 4 species not included in the special-status species table below. However, given they are watchlist species, their identification within the Project area would be noted, if identified, and the CNDDB and CNPS would be contacted with the mapped location of such species for their databases.

None of these species was observed during field surveys. Additionally, there is federally mapped Designated Critical Habitat (DCH) within the Project area for the slender Orcutt grass (USFWS 2023 – see Appendix G) and it has been mapped to the west of the Project area. Slender Orcutt grass is listed under both the ESA and CESA and is found within vernal pool habitats. The Project area does not contain any vernal pool habitat and the DCH is mapped well west of the Project area. Therefore, the proposed Project would have no impact on vernal pools, slender Orcutt grass, or DCH for the species or any other species containing mapped DCH.

The special-status species table below includes the focal species evaluated within this BRA analysis for special-status species and under CEQA to ensure that any threatened, endangered, or otherwise rare species has been adequately assessed. Additionally, below is an outline of the potential for nesting raptors and other protected migratory bird species to occur within the Project disturbance areas.

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 potential for nesting raptors and other nesting migratory bird species protected under the MBTA to occur within the proposed areas of disturbance within the subject parcels given the high level of disturbance along the existing access roads and locations of the Ag wells and water storage structures, and due to the invasive nature of the non-native annual grasslands that dominate the proposed cannabis cultivation sites. The proposed areas of disturbance within the subject parcels represent degraded potential habitat for bird species protected under the MBTA, such as tree nesting species (raptors) and 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 subject parcels were not identified during site visit and field survey. If development within the subject parcels will occur during the nesting season for raptors and ground nesting MBTA protected birds (February 1st through August 31st), a pre-construction survey should be conducted if such development activities pose a risk to nest abandonment prior to the fledging of young from such nests.

5.0 IMPACT ASSESSMENT AND MITIGATION

This section establishes the impact criteria, then analyzes potential Project-related impacts upon the known biological resources within the Project area, and then suggests mitigation measures to reduce these impacts to a less-than-significant level. The significance of impacts to biological resources depends upon the proximity and quality of vegetation communities and wildlife habitats, the presence or absence of special-status species, and the effectiveness of measures implemented to protect these resources from Project-related impacts. As defined by CEQA, the Project would be considered to have a significant adverse impact on biological resources if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a special-status species in local or regional plans, policies, or regulations, or by USFWS or CDFW

- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by USFWS or CDFW

- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites

- Conflict with any county or municipal policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance

- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved governmental habitat conservation plan.

Impact Assessment and Mitigation Measures

Impacts Aquatic Resources

The proposed Project disturbance areas within the subject parcels do not contain any jurisdictional wetlands or "waters of the U.S." Soda Creek and the intermittent or ephemeral drainage areas within the Project area would most likely not meet the updated Corps criteria for being regulated under the Clean Water Act (CWA). The 2023 Updated Water of the United States (WOTUS) Rule reversed the 2020

ruling such that only perennial aquatic resources with documented connections to navigable waterways are currently regulated under the CWA (See Section 2.0 above under the Section 404 of the Clean Water Act for details). Therefore, the Project area does not contain any "waters of the U.S." including wetlands, given the lack of perennial streams and wetlands with a direct connection to a navigable waterway. Soda Creek is the only identified Class I stream within the Project area and all proposed disturbance will be maintained a minimum of 150 feet from the narrow riparian zone that runs along the edge of the creek. Therefore, the Project area does not include any waters subject to regulation under the CWA and Soda Creek the only Class I stream within the Project area will be avoided with the maintenance of the required setback.

CDFW would regulate Soda Creek and the ephemeral and intermittent drainage areas within the two subject parcels. Therefore, the Project applicant has entered into a Lake or Streambed Alteration Agreement (LSA) with CDFWS given the proposed crossing of two of the drainages (one is a Class II stream and the other is a Class III stream – see attached Site Plan in Appendix B). The proposed crossings would include new culverts within the Class II and Class III streams as defined under the California Fish and Game Code and by CDFW.

Therefore, in conclusion, no impacts to any aquatic resources regulated under the CWA will occur (no streams or wetlands meeting the Corps criteria will be impacted) and therefore, no permitting under Section 404 or 401 of the CWA is required as part of the development of the proposed Project. Given the Project applicant has entered into an LSA with CDFW for the placement of culverts within the Class II and Class III drainages within the southern section of the Project area, the Project is in compliance for potential disturbances within surface water and potential wetlands.

With the LSA being implemented for the Project and all requirements of the LSA being implemented by the Project applicant as part of this mitigation measure for impacts to a Class II and Class III stream, adverse impacts upon such streams would be reduced to a less-than-significant level. No other permits or approvals are required for surface water and other aquatic resource impacts.

Impacts to Protected Nesting Birds

The trees and vegetation within the subject parcels (see Photo Log in the appendices attached) contain marginal suitable habitat for nesting raptors and MBTA protected nesting bird species. The breeding season for most protected birds in the vicinity of the subject parcels is generally from February 1st to August 31st. 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 500 feet of the disturbance area within the subject parcels for nesting migratory birds and raptors prior to development.

If any nesting raptors or migratory birds are identified during surveys, CDFW and/or USFWS should be consulted to develop measures to avoid "take" of active nests prior to the initiation of any construction activities. Avoidance measures may include establishment of a buffer zone using construction fencing or the postponement of vegetation removal until after the nesting season, or until after a qualified biologist has determined the young have fledged and are independent of the nest site. 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.

With the implementation of this mitigation measure, adverse impacts upon special-status bird species and nesting birds would be reduced to a less-than-significant level.

Impacts to Special-Status Plants and Terrestrial Wildlife

Given the proposed areas of disturbance within the subject parcels contain moderate levels of disturbance along the existing access roads and at the locations of the existing Ag wells and water storage structures, and due to the invasive nature of the non-native annual grasslands that dominate the proposed cannabis cultivation sites, there is a low potential for such special-status plant and wildlife species to occur within the subject parcels. However, to ensure that the proposed disturbance within the subject parcels does not impact any threatened, endangered, or otherwise rare species, the following mitigation measures shall be implemented to ensure the proposed Project would not have a significant impact on any special-status species.

- An additional botanical survey is recommended because the field survey was not performed during the blooming period of most regionally-occurring rare plants. The survey should be focused on rare plants that have been reported in the vicinity by the CNDDB (within 3 miles of the subject parcels should be sufficient – see Appendix G) and performed during the blooming period of the majority of target species. The survey should also focus on habitat types that are more likely to harbor rare species. If any special-status plant species are identified within any of the proposed areas of disturbance, the Project should either be redesigned to avoid impacts to those plants or a transplantation program to move the plants outside the disturbance areas to ensure that impacts to such special-status plants are minimized. This mitigation measure is for CNPS List 1 and List 2 species and any plant species listed under the ESA or CESA.

- Because special-status species that occur in the vicinity could migrate onto the Project area between the time that the field survey was completed and the start of construction, a pre-construction survey for special-status species should be performed by a qualified biologist to ensure that special-status species are not present prior to the onset of disturbance and construction within the subject parcels.

- If any listed species (or otherwise rare species protected by CDFW and/or USFWS) are detected, construction should be delayed, and the appropriate wildlife agency (CDFW and/or USFWS) should be consulted and project impacts and mitigation reassessed. Mitigation would include waiting for mobile species to move out of harms way and/or a Qualified Biologist with the appropriate state and/or federal handling permits could move less mobile species out of harms way prior to commencing ground disturbing activities, including vegetation clearing.

With the implementation of these mitigation measures, adverse impacts upon special-status species would be reduced to a less-than-significant level.

Additional Impacts Evaluated Under CEQA

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites

  Given the large areas of open space within and adjacent to the Project area, any resident or migratory species that would use the Project area as a wildlife corridor or nursery site would be able to move through and in/out of the Project area with minimal disturbance.

  Therefore, this impact is considered less than significant.

- Conflict with any county or municipal policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance

  The Project will be in compliance with Lake County policies and ordinacnes regarding protecting biological resources, including the tree preservation policy within the cannabis ordinance.

  Based on site specific field survey, the subject parcels do contain oak and pine species. However, within the eastern section of the subject parcels, very few trees were identified and none of them are located within the proposed areas of disturbance. Therefore, local Lake County permitting and mitigation for the removal of trees is not required.

  The proposed Project would have **no impact to trees and will be in compliance with all relevant Lake County policies and ordinances.**

- Conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved governmental habitat conservation plan.

  The Project would not conflict with any provision of an adopted HCP, NCCP, or other approved governmental habitat conservation plan given no such plan covers the Project area.

  The proposed Project would have **no conflict with any habitat or natural community conservation plan at the local, state, or federal level.**

- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by USFWS or CDFW

  The Project area contains a small, narrow, and sparse area of riparian habitat along Soda Creek. However, Soda Creek and its associated riparian habitat will be avoided and a strict 150-foot setback to the Class I stream will be maintained. The Project area does not contain any other sensitive natural communities identified by local, state, or federal government agencies and therefore, there would be no impact to such natural communities.

  The proposed Project would have **no impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by USFWS or CDFW.**

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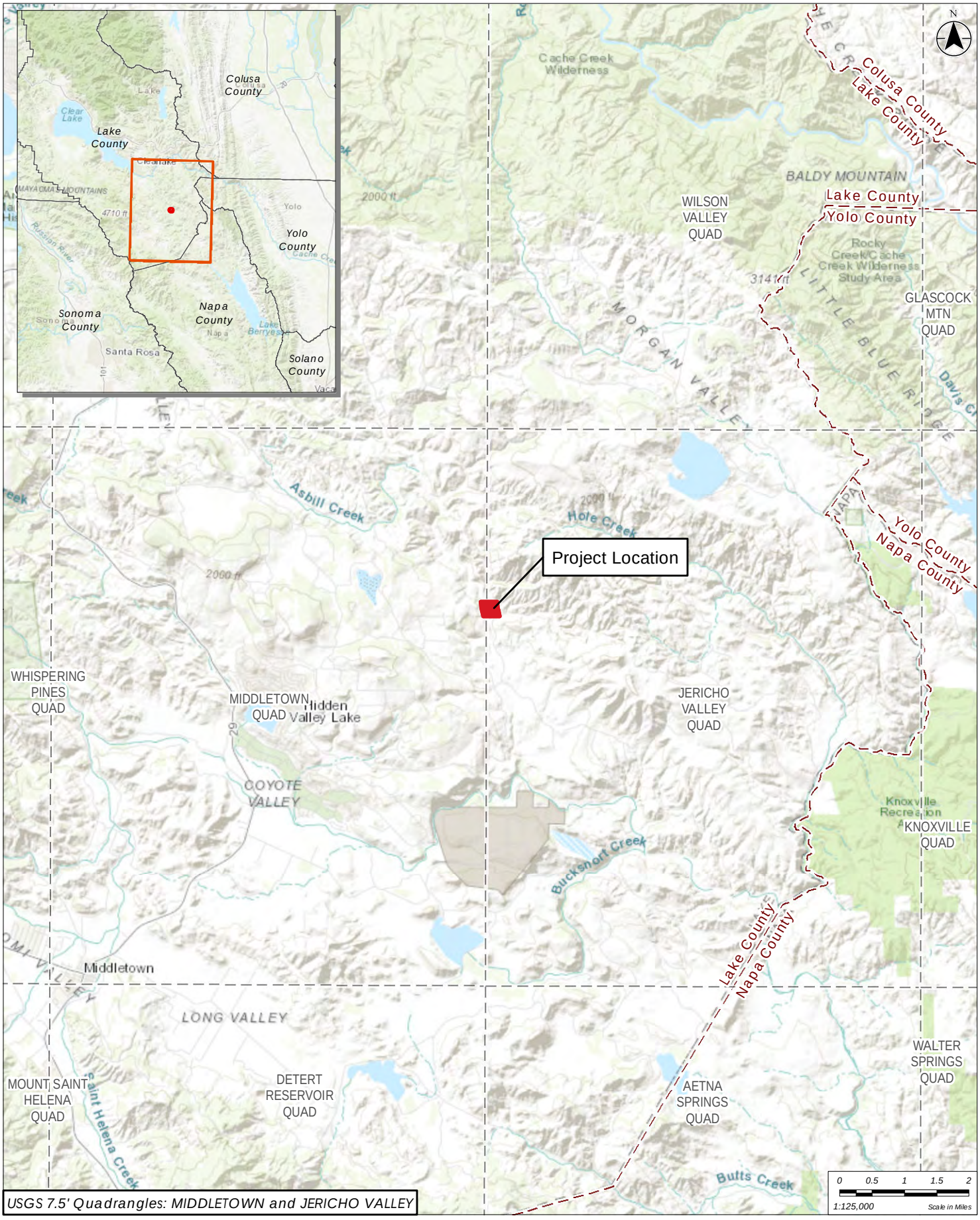
Appendix A

Project Vicinity and Location Maps



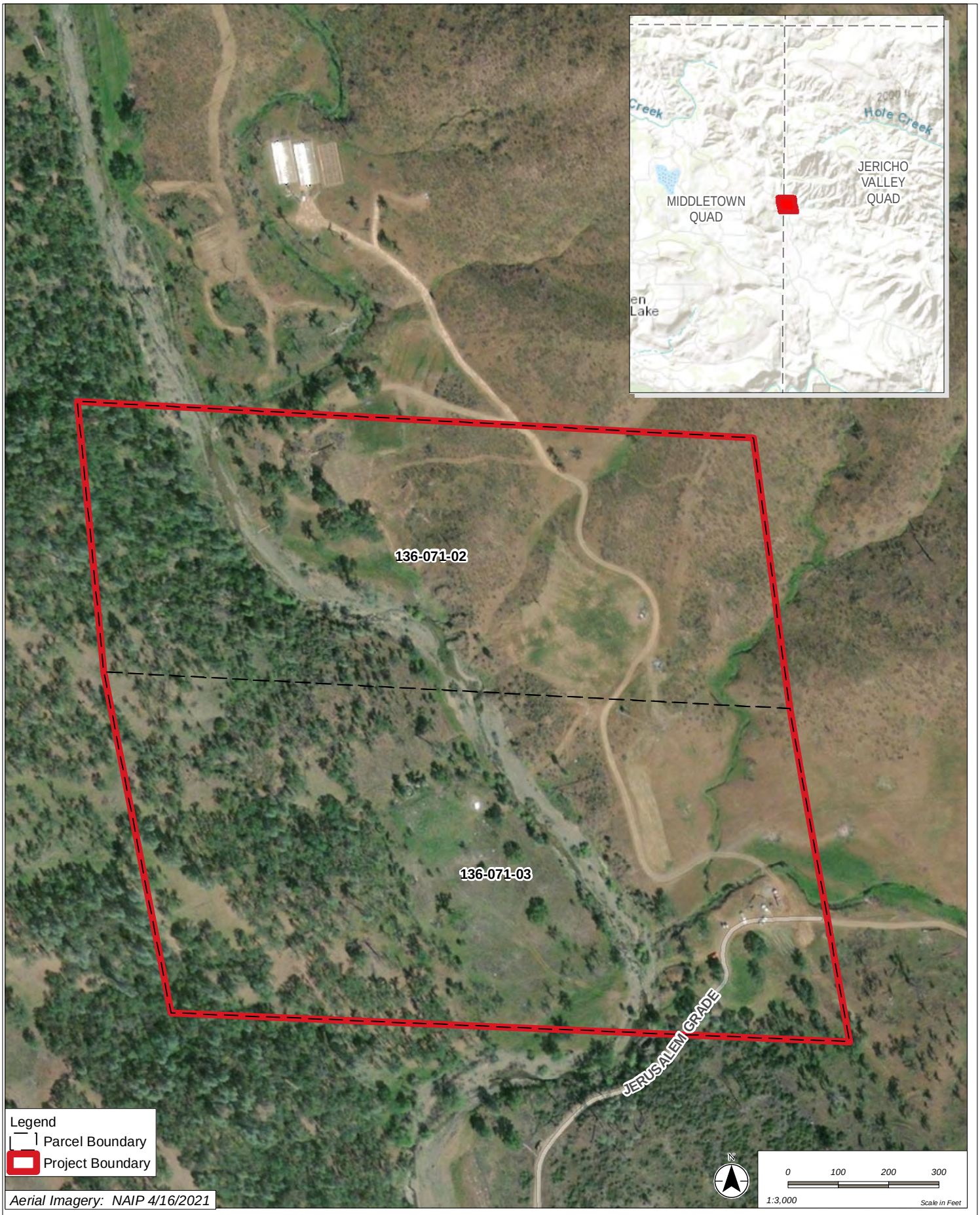
USGS 7.5' Quadrangles: MIDDLETOWN and JERICHO VALLEY

GREG MATUZAK
Environmental Consulting LLC
Nevada City, CA

22430 and 22368 JERUSALEM GRADE

Figure 1. Vicinity Map

Prepared: Melissa Nugent 8/28/2022 D:__GIS_Matuzak\20210826_Lake_JERUSALEM GRADE\mxd\Fig1_Vicinity_LakeCnty_JERUSALEM.mxd



GREG MATUZAK
Environmental Consulting LLC
Nevada City, CA

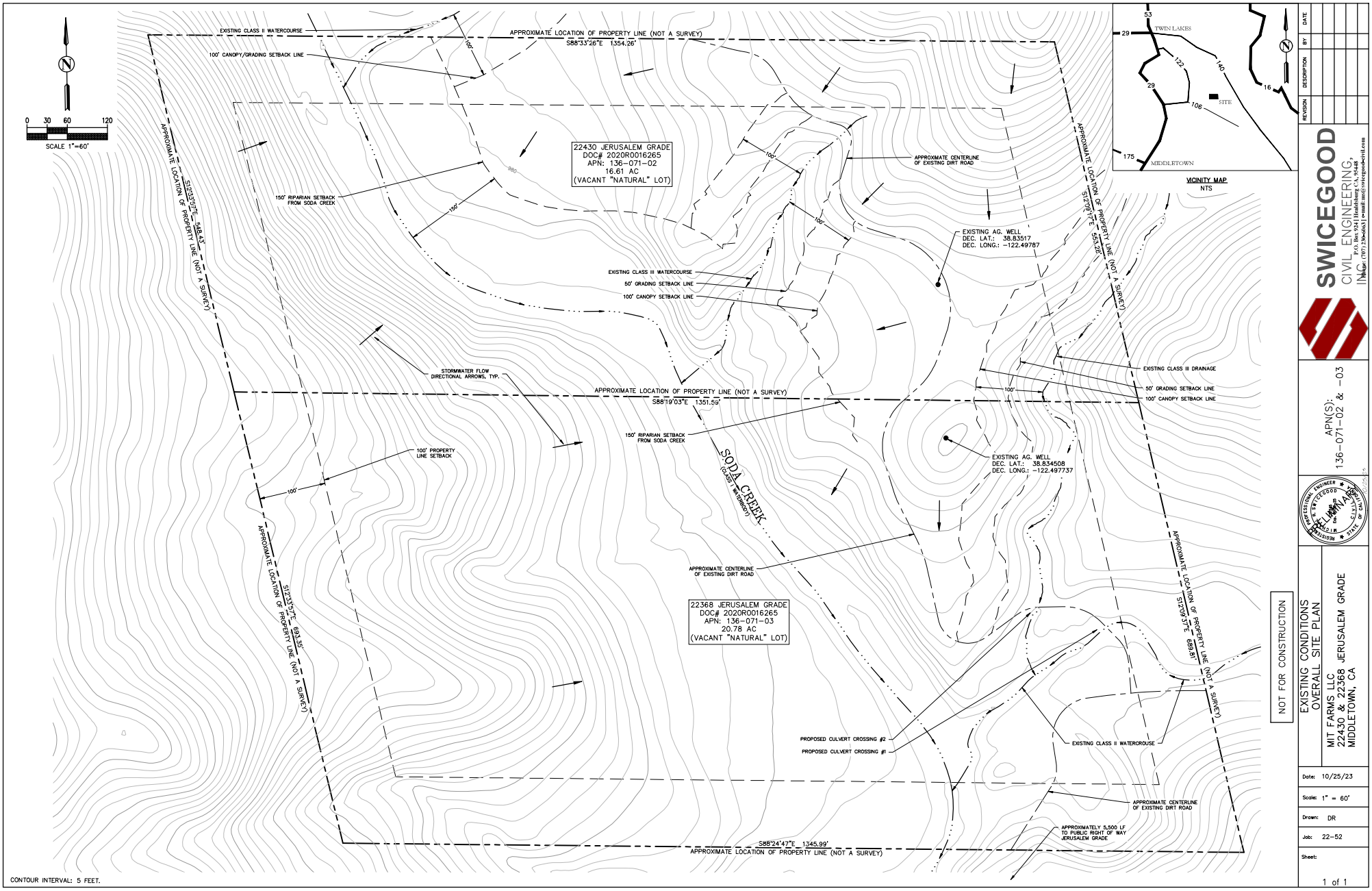
22430 and 22368 JERUSALEM GRADE

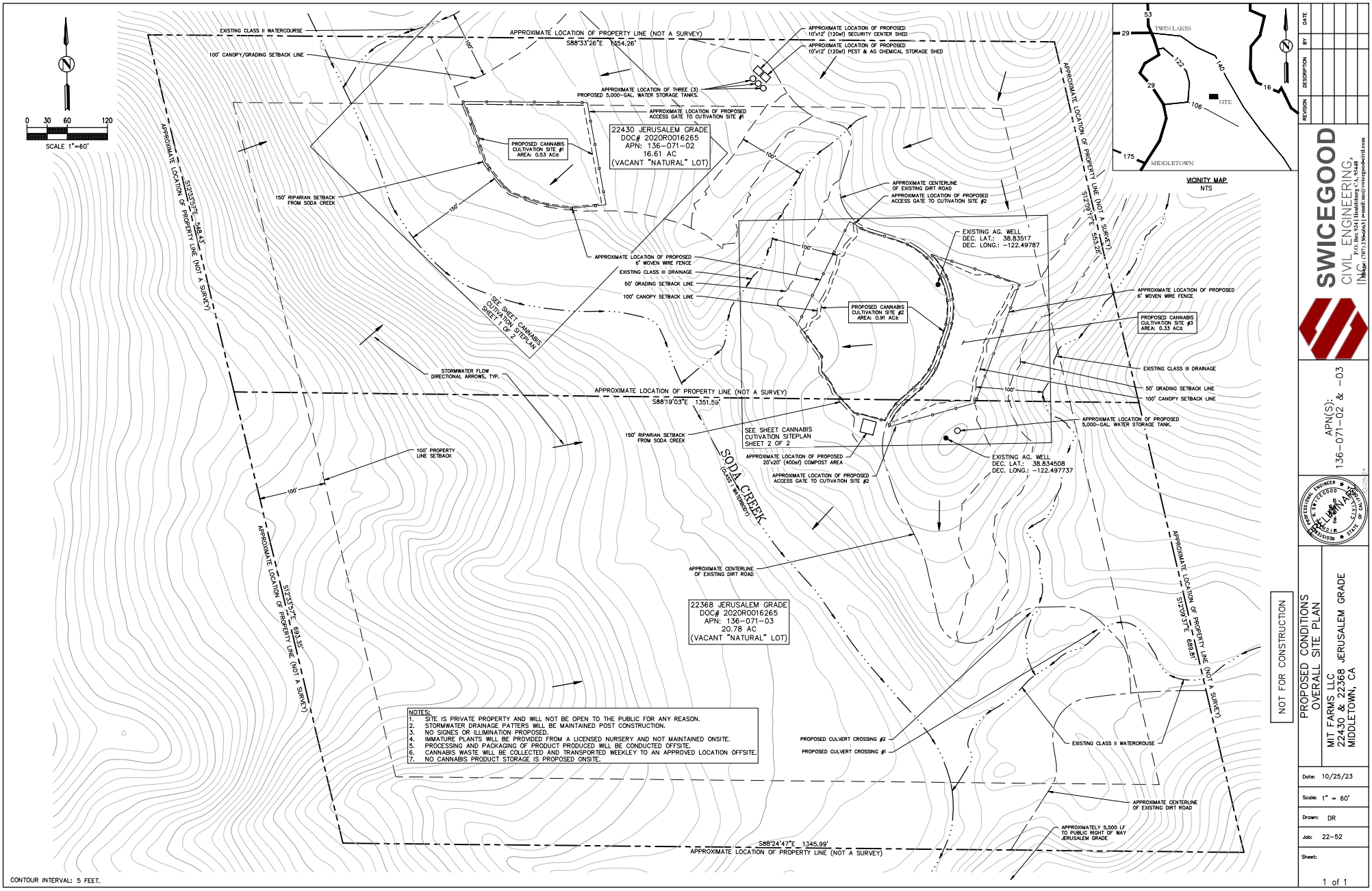
Figure 2. Project Location Map

Prepared: Melissa Nugent 8/28/2022 D:__GIS_Matuzak\20210826_Lake_JERUSALEM GRADE\mxd\Fig2_SiteMap_LakeCnty_JERUSALEM.mxd

Appendix B

Grading and Site Plans


0 30 60 120
SCALE 1"=60'
EXISTING CLASS II WATERCOURSE
100' CANOPY/GRADING SETBACK LINE
APPROXIMATE LOCATION OF PROPERTY LINE (NOT A SURVEY)
S88°33'26"E 1354.26'
22430 JERUSALEM GRADE
DOC# 2020R0016265
APN: 136-071-02
16.61 AC
(VACANT "NATURAL" LOT)
150' RIPARIAN SETBACK FROM SODA CREEK
APPROXIMATE CENTERLINE OF EXISTING DIRT ROAD
APPROXIMATE LOCATION OF PROPERTY LINE (NOT A SURVEY)
S12°39'57"E 548.43'
EXISTING AG. WELL
DEC. LAT.: 38.83517
DEC. LONG.: -122.49787
EXISTING CLASS III WATERCOURSE
50' GRADING SETBACK LINE
100' CANOPY SETBACK LINE
STORMWATER FLOW DIRECTIONAL ARROWS, TYP.
APPROXIMATE LOCATION OF PROPERTY LINE (NOT A SURVEY)
S88°19'03"E 1351.59'
EXISTING CLASS III DRAINAGE
50' GRADING SETBACK LINE
100' CANOPY SETBACK LINE
150' RIPARIAN SETBACK FROM SODA CREEK
100' PROPERTY LINE SETBACK
SODA CREEK
(CLASS I WATERCOURSE)
EXISTING AG. WELL
DEC. LAT.: 38.834508
DEC. LONG.: -122.497737
APPROXIMATE CENTERLINE OF EXISTING DIRT ROAD
APPROXIMATE LOCATION OF PROPERTY LINE (NOT A SURVEY)
S12°39'57"E 693.35'
22368 JERUSALEM GRADE
DOC# 2020R0016265
APN: 136-071-03
20.78 AC
(VACANT "NATURAL" LOT)
APPROXIMATE LOCATION OF PROPERTY LINE (NOT A SURVEY)
S12°39'57"E 689.87'
PROPOSED CULVERT CROSSING #2
PROPOSED CULVERT CROSSING #1
EXISTING CLASS II WATERCOURSE
APPROXIMATE CENTERLINE OF EXISTING DIRT ROAD
APPROXIMATELY 5,500 LF TO PUBLIC RIGHT OF WAY JERUSALEM GRADE
S88°24'47"E 1345.99'
APPROXIMATE LOCATION OF PROPERTY LINE (NOT A SURVEY)
CONTOUR INTERVAL: 5 FEET.
53
29
TWIN LAKES
122
140
29
106
SITE
175
MIDDLETOWN
16
VICINITY MAP
NTS
NOT FOR CONSTRUCTION
REVISION
DESCRIPTION
BY
DATE
SWICEGOOD
CIVIL ENGINEERING, INC.
P.O. Box 924 | Healdsburg CA, 95448
Office: (707) 236-0163 | email: mail@swicegood-civil.com
APN(S):
136-071-02 & -03
EXISTING CONDITIONS
OVERALL SITE PLAN
MIT FARMS LLC
22430 & 22368 JERUSALEM GRADE
MIDDLETOWN, CA
Date: 10/25/23
Scale: 1" = 60'
Drawn: DR
Job: 22-52
Sheet:
1 of 1



NOT FOR CONSTRUCTION

PROPOSED CONDITIONS
OVERALL SITE PLAN

MIT FARMS LLC
22430 & 22368 JERUSALEM GRADE
MIDDLETOWN, CA

APN(S):
136-071-02 & -03

REVISION	DESCRIPTION	BY	DATE

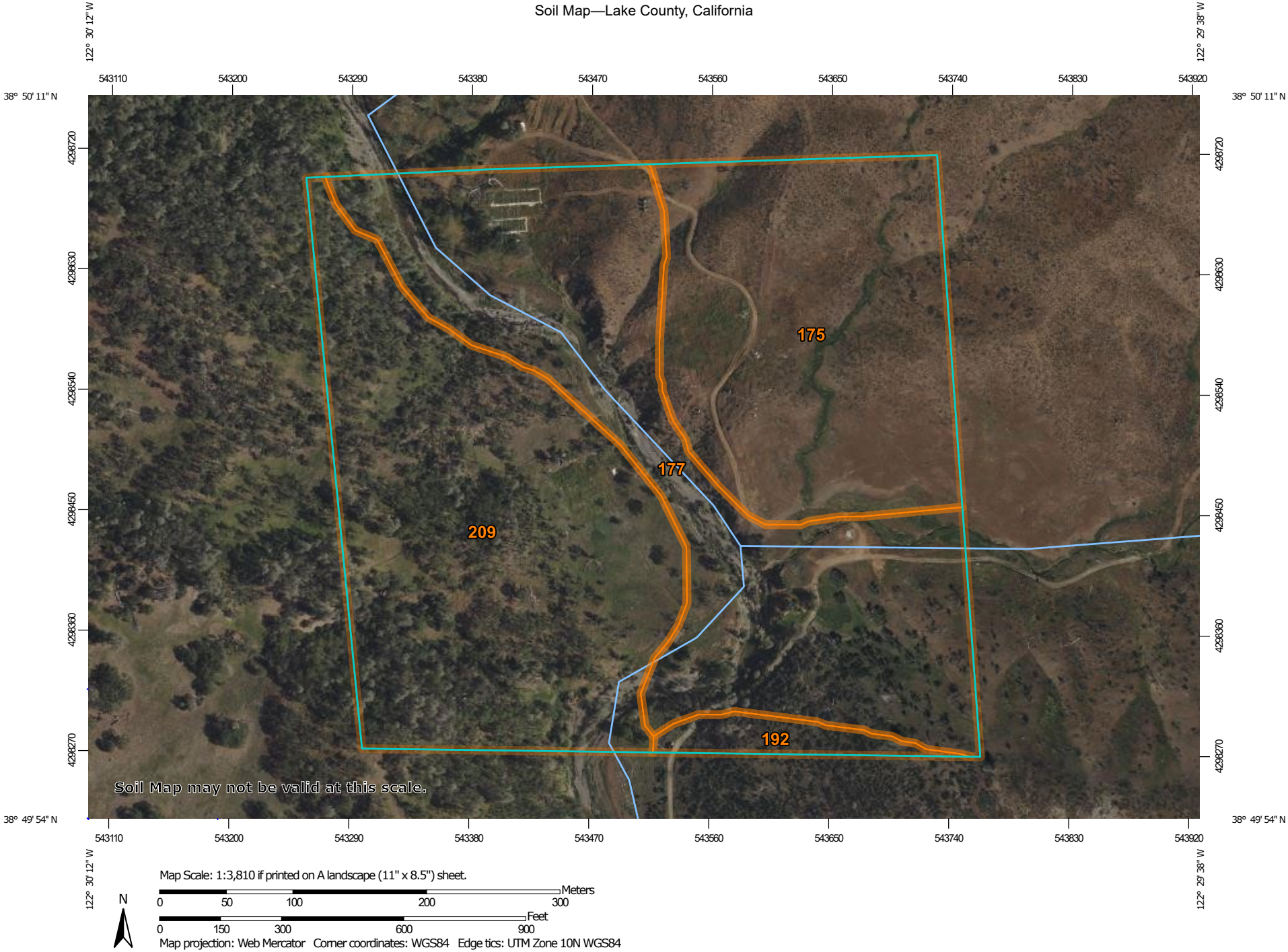
SWICEGOOD
CIVIL ENGINEERING, INC.
P.O. Box 924 | Healdsburg CA, 95448
Office: (707) 236-0163 | email: mail@swicegood-civil.com

Date: 10/25/23
Scale: 1" = 60'
Drawn: DR
Job: 22-52
Sheet: 1 of 1

Appendix C

USDA Soils Map

Soil Map—Lake County, California



Map Scale: 1:3,810 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 50 100 200 300

Feet
0 150 300 600 900

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Lake County, California
Survey Area Data: Version 20, Aug 28, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 26, 2022—Apr 25, 2022

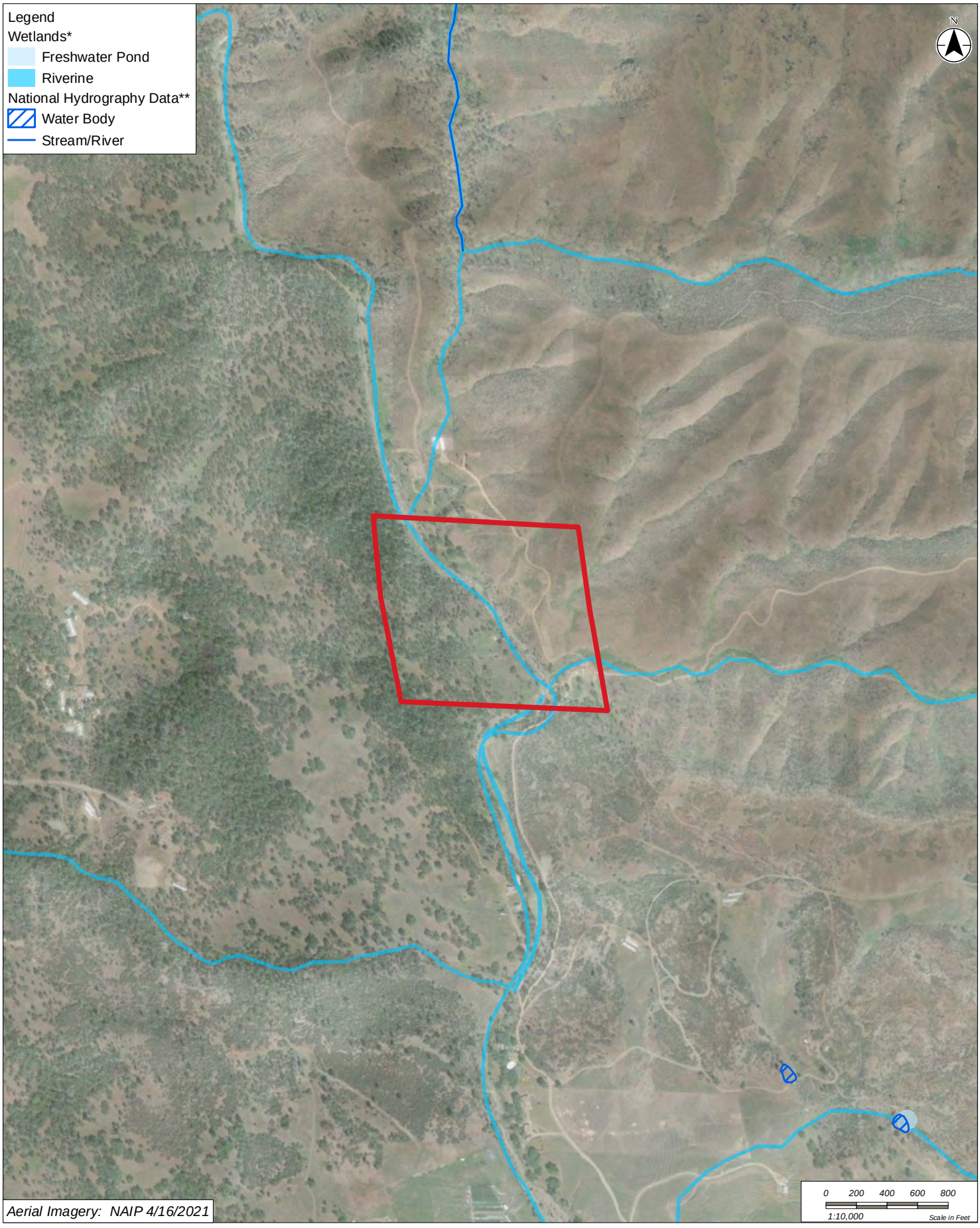
The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
175	Maymen-Millsholm-Bressa complex, 30 to 50 percent slopes	13.7	26.9%
177	Millsholm-Bressa loams, 30 to 50 percent slopes	17.8	35.0%
192	Okiota-Henneke complex, 5 to 30 percent slopes	1.2	2.3%
209	Skyhigh-Millsholm loams, 15 to 50 percent slopes	18.3	35.9%
Totals for Area of Interest		**51.0**	**100.0%**

Appendix D

National Wetland Inventory and National Hyrdography Database Search Map



GREG MATUZAK
Environmental Consulting LLC
Nevada City, CA

22430 and 22368 JERUSALEM GRADE

* Data downloaded from https://www.fws.gov/wetlands/Data/Data-Download.html 11/5/2021
** National Hydrography Dataset (NHD) downloaded from http://nhd.usgs.gov November, 2021

Prepared: Melissa Nugent 8/28/2022 D:__GIS_Matuzak\20210826_Lake_JERUSALEM GRADE\mxd\Fig5_NWI-NHD_LakeCnty_JERUSALEM.mxd

Figure 5. Wetlands and Water Features Map

Appendix E: Plant and Wildlife Species Observed during the Survey of the Subject Parcels on September 2nd, 2022, Middletown, California

Common Name	*Scientific Name*	*Species Status*
Plants		
wild oats	*Avena* spp.	*Not FESA, CESA, or CNPS listed*
brome spp.	*Bromus* spp.	*Not FESA, CESA, or CNPS listed*
blue oak	*Quercus douglasii*	*Not FESA, CESA, or CNPS listed*
manzanita	*Arctostaphylos* spp.	*Not FESA, CESA, or CNPS listed*
buttercup spp.	*Ranunculus* spp.	*Not FESA, CESA, or CNPS listed*
California wild rose	*Rosa californica*	*Not FESA, CESA, or CNPS listed*
common mouse ear chickweed	*Cerastium fontanum*	*Not FESA, CESA, or CNPS listed*
common mullein	*Verbascum Thapsus*	*Not FESA, CESA, or CNPS listed*
common mustard	*Brassica rapa*	*Not FESA, CESA, or CNPS listed*
common periwinkle	*Vinca minor*	*Not FESA, CESA, or CNPS listed*
common sheep sorrel	*Rumex acestocella*	*Not FESA, CESA, or CNPS listed*
cyptanth spp.	*Cryptantha spp.*	*Not FESA, CESA, or CNPS listed*
dandelion spp.	*Agoseris* spp.	*Not FESA, CESA, or CNPS listed*
English plantain	*Plantago lanceolate*	*Not FESA, CESA, or CNPS listed*
everlasting pea	*Lathyrus latifolius*	*Not FESA, CESA, or CNPS listed*
Fremont's cottonwood	*Populus fremontii*	

Common Name	*Scientific Name*	*Species Status*
honeysuckle spp.	*Lonicera* spp.	*Not FESA, CESA, or CNPS listed*
iris spp.	*Iris* spp.	*Not FESA, CESA, or CNPS listed*
mountain violet	*Viola purpurea*	*Not FESA, CESA, or CNPS listed*
foothill pine	*Pinus sabiniana*	*Not FESA, CESA, or CNPS listed*
ripgut brome	*Bromus diandrus*	*Not FESA, CESA, or CNPS listed*
rush spp.	*Juncus* spp.	*Not FESA, CESA, or CNPS listed*
California blackberry	*Rubus ursinus*	*Not FESA, CESA, or CNPS listed*
St. John’s wort	*Hypericum perforatum*	*Not FESA, CESA, or CNPS listed*
shamrock clover	*Trifolium dubium*	*Not FESA, CESA, or CNPS listed*
snowberry	*Symphoricarpos mollis*	*Not FESA, CESA, or CNPS listed*
stork's bill spp.	*Erodium* spp.	*Not FESA, CESA, or CNPS listed*
willow spp.	*Salix* spp.	*Not FESA, CESA, or CNPS listed*
yerba santa	*Eriodictyon californicum*	*Not FESA, CESA, or CNPS listed*
chamise	*Adenostoma fasciculatum*	*Not FESA, CESA, or CNPS listed*

Birds		
American robin	*Turdus migratorius*	*Not CESA or FESA listed. Migratory (active nests protected)*
dark-eyed junco	*Junco hyemalis*	*Not CESA or FESA listed. Migratory (active nests protected)*
house finch	*Haemorhous mexicanus*	*Not CESA or FESA listed. Migratory (active nests protected)*
mourning dove	*Zenaida macroura*	*Not CESA or FESA listed. Migratory (active nests protected)*
northern flicker	*Colaptes auratus*	*Not CESA or FESA listed. Migratory (active nests protected)*
turkey vulture	*Cathartes aura*	*Not CESA or FESA listed. Migratory (active nests protected)*
western scrub-jay	*Aphelocoma californica*	*Not CESA or FESA listed. Migratory (active nests protected)*

Appendix F

Photo Log

Photos of the September 2nd, 2022 Field Survey of Soda Creek and Project Area

Photo 1: Photo looking north along the existing access road within the Project area. An existing Ag well is located to the left near the metal stakes. Cannabis Site #2 to left.

Photo 2: Photo looking west towards the dry streambed of Soda Creek. Soda Creek is considered seasonal given it flows only intermittently as shown with the dry streambed.

Photo 3: Photo of the Soda Creek streambed within the project area. Soda Creek is considered seasonal given it flows only seasonly as witnessed by a completely dry streambed in photo. Grading will remain a minimum of 150 feet from Soda Creek.

Photo 4: Photo of the proposed cannabis cultivation site #2 completely dominated by non-native annual grassland and pasture species with very few shrubs.

Photo 5: Photo of the proposed cannabis cultivation site #2 to the left of existing access road dominated by non-native annual grassland and pasture species. Ag well in photo.

Photo 6: Northern ephemeral drainage that flows across access road and connects with Soda Creek to the left downslope. Cannabis cultivation site #1 is north of this drainage.

Photo 7: Looking south along existing access road with the ephemeral drainage crossing to the right. Cannabis cultivation site #1 is downslope to the right in photo.

Photo 8: Looking southwest from existing access road with the northern ephemeral drainage to the right. Cannabis cultivation site #1 is downslope to the right in photo.

Photo 9: Cannabis cultivation site #1 is downslope to the left in photo within the northern section of the Project area. This area is dominated by non-native species and shrubs.

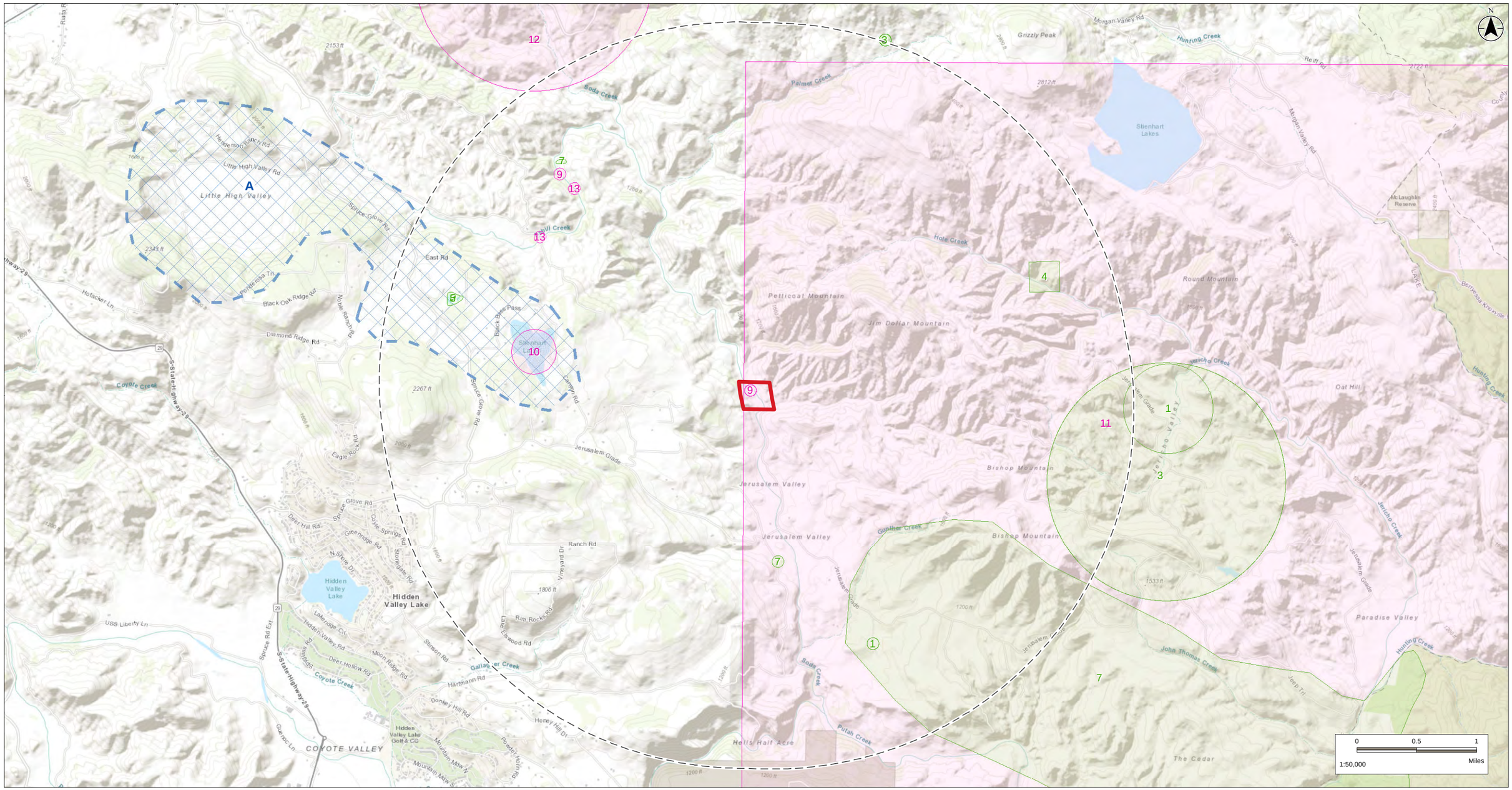
Photo 10: Existing gate along the northern border of the Project area. Cannabis cultivation site #1 is well downslope to the left in photo.

Photo 11: Cannabis cultivation site #2 looking downslope towards Soda Creek. Proposed areas of disturbance contain only non-native grasses and few shrubs.

Photo 12: Looking south from the Project area with Jerusalem Grade in distance and existing access road crossing two seasonal drainages.

Appendix G

CNDDB Species Map and Occurrence Report and USFWS iPac Report



Legend

- Project Location
- 3 mile Buffer on Project
- CNDDB Plant Occurence*
- CNDDB Wildlife Occurence*
- Critical Plant Habitat**
- Critical Wildlife Habitat**

** California Natural Diversity Database (CNDDB) Data: Downloaded August 2022, from the California Department of Fish and Wildlife*
*** United States Fish and Wildlife Service (USFWS) Critical Habitat Data: Downloaded November, 2021 from: https://ecos.fws.gov/ecp/report/table/critical-habitat.html*

CNDDB OCCURRENCES*

Plant Species

1. Adobe-lily
2. Boggs Lake hedge-hyssop
3. Colusa layia
4. Freed's jewelflower
5. Legenere
6. Many-flowered navarretia
7. Sharsmith's western flax
8. Slender Orcutt grass

Wildlife Species

9. Foothill yellow-legged frog
10. Northern Basalt Flow Vernal Pool
11. Prairie falcon
12. Townsend's big-eared bat
13. Western pond turtle

CRITICAL HABITAT OCCURRENCES**

Plant Habitat

A. Slender Orcutt grass

Wildlife Habitat

None

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22430 and 22368 JERUSALEM GRADE

Figure 3. CNDDB and Critical Habitat Map

Prepared: Melissa Nugent 8/28/2022 D:__GIS_Matuzak\20210826_Lake_JERUSALEM GRADE\mxd\Fig3_CNDDB_LakeCnty_JERUSALEM.mxd

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: EOndx IS (112331 OR 119081 OR 119082 OR 13084 OR 13267 OR 13320 OR 14751 OR 26501 OR 45166 OR 45429 OR 45430 OR 47703 OR 47704 OR 47705 OR 5118 OR 93552 OR 93554 OR 93557 OR 93793)

Map Index Number: 47703
EO Index: 47703
Key Quad: Middletown (3812275)
Element Code: AAABH01050
Occurrence Number: 336
Occurrence Last Updated: 2002-04-17

Scientific Name: *Rana boylii*
Common Name: foothill yellow-legged frog

Listing Status: **Federal:** None
State: Endangered
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G3
State: S3
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened
USFS_S-Sensitive

General Habitat:

PARTLY-SHADED, SHALLOW STREAMS AND RIFFLES WITH A ROCKY SUBSTRATE IN A VARIETY OF HABITATS.

Micro Habitat:

NEEDS AT LEAST SOME COBBLE-SIZED SUBSTRATE FOR EGG-LAYING. NEEDS AT LEAST 15 WEEKS TO ATTAIN METAMORPHOSIS.

Last Date Observed: 2001-04-07
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2001-04-07
Occurrence Rank: Good
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:

ASBILL CREEK, 1 MILE UPSTREAM FROM THE CONFLUENCE WITH SODA CREEK, 3.75 MILES NE OF HIDDEN VALLEY LAKE.

Detailed Location:

Ecological:

HABITAT CONSISTS OF RIPARIAN SURROUNDED BY GRAZED ANNUAL GRASSLAND. ABOUT 40% OF SITE IS PROPOSED FOR CONVERSION FROM GRAZING LAND TO VINEYARD.

Threats:

THREATENED BY CONVERSION TO VINEYARDS.

General:

1 ADULT FROG OBSERVED ON 7 APR 2001.

PLSS: T12N, R06W, Sec. 28, NE (M)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-10 N4301471 E540802
Latitude/Longitude: 38.86113 / -122.52972
Elevation (feet): 1,400

County Summary:	Quad Summary:
Lake	Middletown (3812275)

Sources:

KJE01F0006 KJELDSEN, D. & C. KJELDSEN (KJELDSEN BIOLOGICAL CONSULTING) - FIELD SURVEY FORM FOR RANA BOYLII 2001-04-07

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B0464
EO Index: 112331
Key Quad: Jericho Valley (3812274)
Element Code: AAABH01050
Occurrence Number: 2202
Occurrence Last Updated: 2019-03-26

Scientific Name: *Rana boylii*
Common Name: foothill yellow-legged frog

Listing Status: **Federal:** None
State: Endangered
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G3
State: S3
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened
USFS_S-Sensitive

General Habitat:

PARTLY-SHADED, SHALLOW STREAMS AND RIFFLES WITH A ROCKY SUBSTRATE IN A VARIETY OF HABITATS.

Micro Habitat:

NEEDS AT LEAST SOME COBBLE-SIZED SUBSTRATE FOR EGG-LAYING. NEEDS AT LEAST 15 WEEKS TO ATTAIN METAMORPHOSIS.

Last Date Observed: 2018-06-28
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2018-06-28
Occurrence Rank: Fair
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:

SODA CREEK, 0.8 AIR MILE SSW OF PETTICOAT MOUNTAIN, 8 AIR MILES SE OF THE COMMUNITY OF LOWER LAKE.

Detailed Location:

MAPPED TO PROVIDED COORDINATES.

Ecological:

ISOLATED SHALLOW POOL IN DRYING STREAM. WATER TEMPERATURES WARM, FILAMENTOUS ALGAE PREVALENT. SUBSTRATE OF COBBLES & SMALL BOULDERS. PATCHY GROWTH OF RIPARIAN VEGETATION. SURROUNDING LAND USE: CANNABIS CULTIVATION, RURAL RESIDENTIAL.

Threats:

ILLEGAL CANNABIS, ROAD CROSSINGS, SEDIMENT INPUT, TRASH & POLLUTANTS ORIGINATING UPSLOPE, LOW FLOW FROM DIVERSIONS.

General:

OVER 200 INDIVIDUALS OBSERVED, INCLUDING BOTH JUVENILES AND LARVAE, ON 28 JUN 2018.

PLSS: T11N, R06W, Sec. 2, NW (M)
Accuracy: 80 meters
Area (acres): 5
UTM: Zone-10 N4298599 E543392
Latitude/Longitude: 38.83512 / -122.50005
Elevation (feet): 963

County Summary:	Quad Summary:
Lake	Jericho Valley (3812274)

Sources:

LEI18F0001	LEICESTER, M. ET AL. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR RANA BOYLII 2018-06-28
STO18I0002	STOKES, W. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - PHOTO OF RANA BOYLII 2018-06-28

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 33369
Key Quad: Jericho Valley (3812274)
Occurrence Number: 454

EO Index: 13267
Element Code: ABNKD06090
Occurrence Last Updated: 1996-04-11

Scientific Name: *Falco mexicanus*
Common Name: prairie falcon

Listing Status: **Federal:** None
*** SENSITIVE *** **State:** None
CNDDB Element Ranks: **Global:** G5
State: S4

Rare Plant Rank:
Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern

General Habitat:
INHABITS DRY, OPEN TERRAIN, EITHER LEVEL OR HILLY.

Micro Habitat:
BREEDING SITES LOCATED ON CLIFFS. FORAGES FAR AFIELD, EVEN TO MARSHLANDS AND OCEAN SHORES.

Last Date Observed: 1991-04-29
Last Survey Date: 1991-04-29
Owner/Manager:
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Excellent
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:
EYRIE IS A STICK NEST LOCATED ON A WEST EXPOSURE ON A LEDGE ON A ROCK OUTCROP; SURROUNDING HABITAT CONSISTS OF CHAPARRAL AND SCRUB OAK. THIS WAS PART OF THE HOMESTAKE MINE, BUT IS NOW PART OF UCD, MCLAUGHLIN NATURAL RESERVE.

Threats:

General:

PLSS:
UTM:

Accuracy: 80 meters
Latitude/Longitude:

Area (acres): 0
Elevation (feet): 2,000

County Summary:	Quad Summary:
Lake	Jericho Valley (3812274)

Sources:

BAR88F0065	BARCLAY, J. (BIOSYSTEMS ANALYSIS, INC.) - FIELD SURVEY FORM FOR FALCO MEXICANUS (EYRIE SITE) 1988-05-24
BAR89F0002	BARCLAY, J. (BIOSYSTEMS ANALYSIS, INC.) - FIELD SURVEY FORM FOR FALCO MEXICANUS (EYRIE SITE) 1989-04-28
BAR91F0054	BARCLAY, J. (BIOSYSTEMS ANALYSIS, INC.) - FIELD SURVEY FORM FOR FALCO MEXICANUS (EYRIE SITE) 1991-04-29

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92642
Key Quad: Lower Lake (3812285)
Occurrence Number: 458
EO Index: 93793
Element Code: AMACC08010
Occurrence Last Updated: 2014-06-05

Scientific Name: *Corynorhinus townsendii*
Common Name: Townsend's big-eared bat

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G4
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: 1946-10-20
Last Survey Date: 1946-10-20
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
ABOUT 4 MI W OF GRIZZLY PEAK AND ABOUT 4.5 MI SE OF LOWER LAKE.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED TO LOCALITY IN FIELD NOTES OF 4 MI E AND 1.8 MI S OF LOWER LAKE ON A COUNTY ROAD E OF LOWER LAKE.

Ecological:

Threats:

General:
2 SPECIMENS COLLECTED ON 20 OCT 1946 BY S. BENSON AND M. KOFORD (MVZ #106041, 106042) IN AN EMPTY RANCH HOUSE.

PLSS: T12N, R06W, Sec. 16 (M)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-10 N4304184 E540426
Latitude/Longitude: 38.88559 / -122.53389
Elevation (feet): 1,290

County Summary:	Quad Summary:
Lake	Middletown (3812275), Lower Lake (3812285)

Sources:

BEN46S0004 BENSON, S. ET AL. - MVZ #106041, 106042 1946-10-20

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 47704
EO Index: 47704
Key Quad: Middletown (3812275)
Element Code: ARAAD02030
Occurrence Number: 545
Occurrence Last Updated: 2002-04-17

Scientific Name: *Emys marmorata*
Common Name: western pond turtle

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

CNDDB Element Ranks: **Global:** G3G4
State: S3
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_VU-Vulnerable
USFS_S-Sensitive

General Habitat:

A THOROUGHLY AQUATIC TURTLE OF PONDS, MARSHES, RIVERS, STREAMS AND IRRIGATION DITCHES, USUALLY WITH AQUATIC VEGETATION, BELOW 6000 FT ELEVATION.

Micro Habitat:

NEEDS BASKING SITES AND SUITABLE (SANDY BANKS OR GRASSY OPEN FIELDS) UPLAND HABITAT UP TO 0.5 KM FROM WATER FOR EGG-LAYING.

Last Date Observed: 2001-05-07
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2001-05-07
Occurrence Rank: Excellent
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:

ASBILL CREEK, ABOUT 2 MILES UPSTREAM FROM THE CONFLUENCE WITH SODA CREEK, 3.5 MILES NE OF HIDDEN VALLEY LAKE.

Detailed Location:

Ecological:

HABITAT CONSISTS OF RIPARIAN SURROUNDED BY GRAZED ANNUAL GRASSLAND. SITE IS PROPOSED FOR CONVERSION FROM GRAZING LAND TO VINEYARD (~40%).

Threats:

THREATENED BY CONVERSION TO VINEYARDS.

General:

2 ADULT TURTLES OBSERVED ON 7 MAY 2001.

PLSS: T12N, R06W, Sec. 28, SW (M)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-10 N4300623 E540543
Latitude/Longitude: 38.85350 / -122.53275
Elevation (feet): 1,400

County Summary:	Quad Summary:
Lake	Middletown (3812275)

Sources:

KJE01F0007	KJELDSEN, D. & C. KJELDSEN (KJELDSEN BIOLOGICAL CONSULTING) - FIELD SURVEY FORM FOR CLEMMYS MARMORATA MARMORATA 2001-05-07

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 47705
EO Index: 47705
Key Quad: Middletown (3812275)
Element Code: ARAAD02030
Occurrence Number: 546
Occurrence Last Updated: 2002-04-17

Scientific Name: *Emys marmorata*
Common Name: western pond turtle

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3G4
State: S3

Rare Plant Rank:
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_VU-Vulnerable
USFS_S-Sensitive

General Habitat:
A THOROUGHLY AQUATIC TURTLE OF PONDS, MARSHES, RIVERS, STREAMS AND IRRIGATION DITCHES, USUALLY WITH AQUATIC VEGETATION, BELOW 6000 FT ELEVATION.

Micro Habitat:
NEEDS BASKING SITES AND SUITABLE (SANDY BANKS OR GRASSY OPEN FIELDS) UPLAND HABITAT UP TO 0.5 KM FROM WATER FOR EGG-LAYING.

Last Date Observed: 2001-05-07
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2001-05-07
Occurrence Rank: Excellent
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:
ASBILL CREEK, ABOUT 1 MILE UPSTREAM FROM THE CONFLUENCE WITH SODA CREEK, 3.7 MILES NE OF HIDDEN VALLEY LAKE.

Detailed Location:

Ecological:
HABITAT CONSISTS OF RIPARIAN SURROUNDED BY GRAZED ANNUAL GRASSLAND. SITE IS PROPOSED FOR CONVERSION FROM GRAZING LAND TO VINEYARD (~40%).

Threats:
THREATENED BY CONVERSION TO VINEYARDS.

General:
1 ADULT TURTLE OBSERVED ON 7 MAY 2001.

PLSS: T12N, R06W, Sec. 28, SE (M)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-10 N4301281 E540999
Latitude/Longitude: 38.85941 / -122.52746
Elevation (feet): 1,400

County Summary:	Quad Summary:
Lake	Middletown (3812275)

Sources:

KJE01F0007	KJELDSEN, D. & C. KJELDSEN (KJELDSEN BIOLOGICAL CONSULTING) - FIELD SURVEY FORM FOR CLEMMYS MARMORATA MARMORATA 2001-05-07

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 08649
EO Index: 13320
Key Quad: Middletown (3812275)
Element Code: CTT44131CA
Occurrence Number: 11
Occurrence Last Updated: 1998-07-16

Scientific Name: *Northern Basalt Flow Vernal Pool*
Common Name: Northern Basalt Flow Vernal Pool

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists:

CNDDB Element Ranks: **Global:** G3
State: S2.2

General Habitat:

Micro Habitat:

Last Date Observed: 1980-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1980-XX-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

STIENHART LAKE, 6 MILES NORTHEAST OF MIDDLETOWN.

Detailed Location:

Ecological:

LARGE VERNAL LAKE. ENTIRE LAKEBED COVERED WITH VERNAL POOL SPECIES. DOMINATED BY POGOGYNE DOUGLASII, ERYNGIUM ARISTULATUM, AND MIMULUS TRICOLOR. UNABLE TO CONVERT TO FLORISTIC CLASSIFICATION, LACKS SPP. INFO.

Threats:

DREDGING OF ADJ AREA UNDERWAY TO MAINTAIN & DEVELOP FISH PONDS.

General:

SEE HTTPS://WILDLIFE.CA.GOV/DATA/VEGCAMP/NATURAL-COMMUNITIES TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS: T12N, R06W, Sec. 33, SW (M)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-10 N4299085 E540482
Latitude/Longitude: 38.83964 / -122.53355
Elevation (feet): 1,750

County Summary:	Quad Summary:
Lake	Middletown (3812275)

Sources:

BUR80U0004 BURKE, M.T. - ELEMENT PRESERVATION PLAN: ECOLOGICAL ISLANDS PREPARED FOR TNC 1980-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B6049
EO Index: 119081
Key Quad: Jericho Valley (3812274)
Element Code: PDAST5N0F0
Occurrence Number: 65
Occurrence Last Updated: 2020-08-14

Scientific Name: *Layia septentrionalis*
Common Name: Colusa layia

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_UCBG-UC Botanical Garden at Berkeley

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

General Habitat:

CHAPARRAL, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SCATTERED COLONIES IN FIELDS AND GRASSY SLOPES IN SANDY OR SERPENTINE SOIL. 15-1100 M.

Last Date Observed: 2020-04-17
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2020-04-17
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

JERUSALEM ROAD, MIDDLETOWN.

Detailed Location:

EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB IN THE VICINITY OF JERUSALEM ROAD IN JERICHO VALLEY, ALTHOUGH THERE ARE SEVERAL ROADS IN THIS VICINITY WITH VARIATIONS ON THIS NAME.

Ecological:

Threats:

General:

ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 2020 PHOTO BY AKULOVA IN CALPHOTOS. NEEDS FIELDWORK.

PLSS: T11N, R05W, Sec. 8 (M)
Accuracy: 1 mile
Area (acres): 1,987
UTM: Zone-10 N4297436 E548985
Latitude/Longitude: 38.82435 / -122.43569
Elevation (feet):

County Summary:	Quad Summary:
Lake	Jericho Valley (3812274)

Sources:

AKU20I0001 AKULOVA, Z. - PHOTOS OF LAYIA SEPTENTRIONALIS, CALPHOTOS ID: 0000 0000 0520 0316-0320 2020-04-17

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B6050
EO Index: 119082
Key Quad: Wilson Valley (3812284)
Element Code: PDAST5N0F0
Occurrence Number: 66
Occurrence Last Updated: 2020-08-14

Scientific Name: *Layia septentrionalis*
Common Name: Colusa layia

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_UCBG-UC Botanical Garden at Berkeley

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

General Habitat:

CHAPARRAL, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SCATTERED COLONIES IN FIELDS AND GRASSY SLOPES IN SANDY OR SERPENTINE SOIL. 15-1100 M.

Last Date Observed: 2018-05-22
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2018-05-22
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

PALMER CREEK WATERSHED, SOUTH OF MORGAN VALLEY ROAD, BETWEEN LOWER LAKE AND KNOXVILLE.

Detailed Location:

MAPPED ACCORDING TO COORDINATES PROVIDED WITH 2018 HEISE PHOTO, IN THE NORTH 1/2 OF THE NW 1/4 OF SECTION 24.

Ecological:

SHALLOW, ROCKY SOIL UNDER PARTIAL SHADE OF BLUE OAK WOODLAND WITH ARCTOSTAPHYLOS MANZANITA, AVENA FATUA, BROMUS DIANDRUS, ETC.

Threats:

General:

SITE IS BASED ON A 2018 HEISE PHOTO FROM CALPHOTOS.

PLSS: T12N, R06W, Sec. 24, NW (M)
Accuracy: 80 meters
Area (acres): 5
UTM: Zone-10 N4303323 E545149
Latitude/Longitude: 38.8776 / -122.4795
Elevation (feet): 2,254

County Summary:	Quad Summary:
Lake	Wilson Valley (3812284)

Sources:

HEI18I0001 HEISE, K. - PHOTO OF LAYIA SEPTENTRIONALIS, CALPHOTOS ID: 0000 0000 0918 1752 2018-05-22

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 45166
EO Index: 45166
Key Quad: Jericho Valley (3812274)
Element Code: PDBRA2G071
Occurrence Number: 12
Occurrence Last Updated: 2001-04-04

Scientific Name: *Streptanthus brachiatus ssp. hoffmanii*
Common Name: Freed's jewelflower

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

CNDDB Element Ranks: **Global:** G2T2
State: S2

General Habitat:

CHAPARRAL, CISMONTANE WOODLAND.

Micro Habitat:

SERPENTINE ROCK OUTCROPS, PRIMARILY IN GEOTHERMAL DEVELOPMENT AREAS. 485-1040 M.

Last Date Observed: 1998-06-28
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1998-06-28
Occurrence Rank: Unknown
Owner/Manager: BLM
Trend: Unknown
Presence: Presumed Extant

Location:

1 MILE WEST OF ROUND MOUNTAIN, HOLE CREEK CANYON, NORTHWEST OF JERICHO VALLEY.

Detailed Location:

ON UPPER TO MID-SLOPE OF HOLE CREEK CANYON, ON WEST-FACING STEEP SLOPE. MAPPED WITHIN THE SW 1/4 OF THE NE 1/4 SECTION 31 ACCORDING TO T-R-S PROVIDED BY CALLIZO.

Ecological:

SERPENTINE BARRENS WITH SERPENTINE CHAPARRAL. ASSOCIATED WITH STREPTANTHUS BREWERI; HYBRIDS BETWEEN S. BREWERI AND S. BRACHIATUS SSP. HOFFMANII ALSO APPARENT.

Threats:

NONE OBSERVED.

General:

FEWER THAN 100 PLANTS OBSERVED IN 1998. SPECIMENS SENT TO KRUCKEBERG FOR CONFIRMATION.

PLSS: T12N, R05W, Sec. 31, NE (M)
Accuracy: non-specific area
Area (acres): 41
UTM: Zone-10 N4300166 E547319
Latitude/Longitude: 38.84904 / -122.45469
Elevation (feet): 1,600

County Summary:

Lake

Quad Summary:

Jericho Valley (3812274)

Sources:

CAL98F0001 CALLIZO, J. - FIELD SURVEY FORM FOR STREPTANTHUS BRACHIATUS SSP. HOFFMANII 1998-06-28

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 08603
EO Index: 5118
Key Quad: Middletown (3812275)
Element Code: PDCAM0C010
Occurrence Number: 34
Occurrence Last Updated: 1994-08-24

Scientific Name: *Legenere limosa*
Common Name: legenere

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_UCBG-UC Botanical Garden at Berkeley

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

General Habitat:
VERNAL POOLS.

Micro Habitat:
IN BEDS OF VERNAL POOLS. 1-1005 M.

Last Date Observed: 1989-04-29
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1989-04-29
Occurrence Rank: Excellent
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:
NORTHWESTERN-MOST OF THE STEINHART LAKES, NORTH OF COYOTE VALLEY.

Detailed Location:
MAPPED WITHN THE SW 1/4 OF THE NE 1/4 OF SECTION 32.

Ecological:
LARGE VERNAL LAKE WITH LIMNANTHES DOUGLASII, LASTHENIA GLABERRIMA, AND ALLOCARYA STIPITATA MICRANTHA. OTHER RARE PLANTS INCLUDE GRATIOLA HETEROSEPALA, ORCUTTIA TENUIS, AND NAVARRETIA LEUCOCEPHALA SSP. PLIEANTHA.

Threats:

General:
UNKNOWN NUMBER OF PLANTS OBSERVED IN 1989. NO OBVIOUS THREATS BUT RANCHETTES ARE BEING DEVELOPED IN SURROUNDING AREA.

PLSS: T12N, R06W, Sec. 32, NE (M)
Accuracy: specific area
Area (acres): 7
UTM: Zone-10 N4299786 E539413
Latitude/Longitude: 38.84601 / -122.54582
Elevation (feet): 1,800

County Summary:	Quad Summary:
Lake	Middletown (3812275)

Sources:

BIT89F0012 BITTMAN, R. & N. MCCARTEN - FIELD SURVEY FORM FOR GRATIOLA HETEROSEPALA 1989-04-29

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92448
EO Index: 93552
Key Quad: Jericho Valley (3812274)
Element Code: PDLIN010E0
Occurrence Number: 1
Occurrence Last Updated: 2014-05-23

Scientific Name: *Hesperolinon sharsmithiae*
Common Name: Sharsmith's western flax

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_UCSC-UC Santa Cruz

CNDDB Element Ranks: **Global:** G2Q
State: S2

General Habitat:
CHAPARRAL.

Micro Habitat:
SERPENTINE SUBSTRATES. 180-670 M.

Last Date Observed: 2010-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2010-XX-XX
Occurrence Rank: Excellent
Owner/Manager: BLM, PVT
Trend: Unknown
Presence: Presumed Extant

Location:
VICINITY OF THE CEDARS, NORTH OF LAKE BERRYESSA.

Detailed Location:
MAPPED BY CNDDB TO INCLUDE VERY GENERAL MAP INFORMATION FROM O'DONNELL IN 2006 & 2010.

Ecological:
SERPENTINE CHAPARRAL WITH CUPRESSUS SARGENTII, ARCTOSTAPHYLOS VISCIDA, QUERCUS DURATA, STREPTANTHUS BREWERI HESPERIDIS, S. GLANDULOSUS, NAVARRETIA JEPSONII, VUPIA MICROSTACHYS, CRYPTANTHA HISPIDULA, ALLIUM FIMBRIATUM, ETC.

Threats:

General:
TYPE LOCALITY. DESCRIBED AS "ABUNDANT" BY O'DONNELL IN 2005. IN 2010, THE POPULATION WAS DENSE AND ROBUST. NEED BETTER MAP DETAIL FOR THIS SITE.

PLSS: T11N, R05W, Sec. 20 (M)
Accuracy: non-specific area
Area (acres): 5,252
UTM: Zone-10 N4294278 E548382
Latitude/Longitude: 38.79593 / -122.44285
Elevation (feet): 1,200

County Summary:
Lake, Napa

Quad Summary:
Jericho Valley (3812274)

Sources:

ODO05S0001	O'DONNELL, R. - O'DONNELL SN JEPS #111339, UC #1862410 2005-06-09
ODO06A0001	O'DONNELL, R. - A NEW SPECIES OF HESPEROLINON (LINACEAE) FROM HUNTING CREEK IN NAPA COUNTY, CALIFORNIA, MADRONO 53(4): 404-408. 2006-XX-XX
ODO10A0001	O'DONNELL, R. - THE GENUS HESPEROLINON (LINACEAE): AN INTRODUCTION, FOUR SEASONS 13(4): 1-55. 2010-12-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	28790	**EO Index:**	93554
Key Quad:	Jericho Valley (3812274)	**Element Code:**	PDLIN010E0
Occurrence Number:	2	**Occurrence Last Updated:**	2014-05-20

Scientific Name: *Hesperolinon sharsmithiae*

Common Name: Sharsmith's western flax

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.2

Other Lists: BLM_S-Sensitive
SB_UCSC-UC Santa Cruz

CNDDB Element Ranks: **Global:** G2Q

State: S2

General Habitat:

CHAPARRAL.

Micro Habitat:

SERPENTINE SUBSTRATES. 180-670 M.

Last Date Observed:	1994-06-10	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1994-06-10	**Occurrence Rank:**	Excellent
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

JERUSALEM VALLEY, WEST OF SODA CREEK AND SOUTH OF JERUSALEM ROAD.

Detailed Location:

WESTERN EDGE OF CREEK ABOUT 0.25 MILE SE OF ROAD, EAST AND WEST OF DIRT ROAD. SUGGEST THAT ROAD MODIFICATIONS BE PLANNED TO SKIRT HABITAT AND FOOT TRAFFIC BE CONTROLLED BY FOOTPATH CONSTRUCTION/LOW ROCK WALL & APPROPRIATE SIGNAGE.

Ecological:

RELATIVELY BARE SOILS (HENNEKE-MONTARA ROCK OUTCROP COMPLEX). ASSOCIATED WITH LOMATIUM DISSECTUM, NAVARRETIA INTERTEXTA, HOLOZONIA, AND VULPIA MEGALURA.

Threats:

AREA BEING CONSIDERED FOR MEETING AND CAMPING AREA TO ACCOMODATE UP TO 1200 PEOPLE.

General:

200 PLANTS OBSERVED IN 1994. PLANTS AT THIS SITE FORMERLY IDENTIFIED AS H. SERPENTINUM; MOVED TO H. SHARSMITHIAE BASED ON ID OF NEARBY OCCURRENCES. ID NEEDS CONFIRMATION.

PLSS:	T11N, R06W, Sec. 11, SW (M)	**Accuracy:**	80 meters	**Area (acres):**	0
UTM:	Zone-10 N4296302 E543786	**Latitude/Longitude:**	38.81441 / -122.49565	**Elevation (feet):**	980

County Summary:	**Quad Summary:**
Lake	Jericho Valley (3812274)

Sources:

BAA94F0001 BAAD, M. - FIELD SURVEY FORM FOR HESPEROLINON SP. NOV. "SERPENTINUM" 1994-06-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 66783
EO Index: 93557
Key Quad: Middletown (3812275)
Element Code: PDLIN010E0
Occurrence Number: 3
Occurrence Last Updated: 2014-05-20

Scientific Name: *Hesperolinon sharsmithiae*
Common Name: Sharsmith's western flax

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_UCSC-UC Santa Cruz

CNDDB Element Ranks: **Global:** G2Q
State: S2

General Habitat:
CHAPARRAL.

Micro Habitat:
SERPENTINE SUBSTRATES. 180-670 M.

Last Date Observed: 2001-05-07
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2001-05-07
Occurrence Rank: Fair
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:
EAST SIDE OF ASBILL CREEK, NEAR CONFLUENCE WITH SODA CREEK, 7 MILES SE OF CLEAR LAKE.

Detailed Location:
ON SERPENTINE RIDGE THAT EXTENDS THROUGH THE PROPERTY. MAPPED IN SW1/4 OF NE1/4 OF SEC 28.

Ecological:
SERPENTINE ROCKY RIDGE.

Threats:

General:
GREATER THAN 30 PLANTS OBSERVED IN 2001. PLANTS AT THIS SITE FORMERLY IDENTIFIED AS H. SERPENTINUM; MOVED TO H. SHARSMITHIAE BASED ON ID OF NEARBY OCCURRENCES AT THE CEDARS. ID NEEDS CONFIRMATION.

PLSS: T12N, R06W, Sec. 28, NE (M)
Accuracy: specific area
Area (acres): 2
UTM: Zone-10 N4301639 E540816
Latitude/Longitude: 38.86264 / -122.52953
Elevation (feet): 1,400

County Summary:
Lake

Quad Summary:
Middletown (3812275)

Sources:
KJE01F0013 KJELDSEN, C. & D. KJELDSEN - FIELD SURVEY FORM FOR HESPEROLINON SP. NOV. "SERPENTINUM" 2001-05-07

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 08603
EO Index: 14751
Key Quad: Middletown (3812275)
Element Code: PDPLM0C0E5
Occurrence Number: 11
Occurrence Last Updated: 1996-01-26

Scientific Name: *Navarretia leucocephala ssp. plieantha*
Common Name: many-flowered navarretia

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank: 1B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G4T1
State: S1

General Habitat:
VERNAL POOLS.

Micro Habitat:
VOLCANIC ASH FLOW VERNAL POOLS. 30-915 M.

Last Date Observed: 1989-04-29
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1989-04-29
Occurrence Rank: Excellent
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:
NORTHERNMOST LAKE OF STEINHART LAKES, EAST OF SPRUCE GROVE ROAD, 7 AIR MILES NORTHEAST OF MIDDLETOWN.

Detailed Location:

Ecological:
IN VOLCANIC ASH VERNAL POOL ON BASALT. ASSOCIATED WITH ORCUTTIA TENUIS, GRATIOLA HETEROSEPALA, LEGENERE LIMOSA, ERYNGIUM ARISTULATUM, LIMNANTHES DOUGLASII, LASTHENIA GLABERRIMA, PLAGIOBOTHRYS STIPITATUS, AND ELEOCHARIS PALUSTRIS.

Threats:
UNDISTURBED SAVE FOR SMALL CATTLE POND AT ONE END OF OCCURRENCE.

General:
MORE THAN 1000 PLANTS SEEN IN 1987. UNKNOWN NUMBER OF PLANTS OBSERVED IN 1989.

PLSS: T12N, R06W, Sec. 32, NE (M)
Accuracy: specific area
Area (acres): 7
UTM: Zone-10 N4299786 E539413
Latitude/Longitude: 38.84601 / -122.54582
Elevation (feet): 1,800

County Summary:
Lake

Quad Summary:
Middletown (3812275)

Sources:

BIT89F0012	BITTMAN, R. & N. MCCARTEN - FIELD SURVEY FORM FOR GRATIOLA HETEROSEPALA 1989-04-29
MCC87F0003	MCCARTEN, N. ET AL. - FIELD SURVEY FORM FOR NAVARRETIA LEUCOCEPHALA SSP. PLIEANTHA & ORCUTTIA TENUIS 1987-06-29
MCC87F0006	MCCARTEN, N. & R. BITTMAN - FIELD SURVEY FORM FOR NAVARRETIA LEUCOCEPHALA SSP. PLIEANTHA 1987-06-29

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 08603
EO Index: 13084
Key Quad: Middletown (3812275)
Element Code: PDSCR0R060
Occurrence Number: 42
Occurrence Last Updated: 1996-01-26

Scientific Name: *Gratiola heterosepala*
Common Name: Boggs Lake hedge-hyssop

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

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

General Habitat:
MARSHES AND SWAMPS (FRESHWATER), VERNAL POOLS.

Micro Habitat:
CLAY SOILS; USUALLY IN VERNAL POOLS, SOMETIMES ON LAKE MARGINS. 4-2410 M.

Last Date Observed: 1989-04-29
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1989-04-29
Occurrence Rank: Excellent
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:
NORTHWESTERN-MOST LAKE OF STEINHART LAKES, NORTH OF COYOTE VALLEY.

Detailed Location:

Ecological:
LARGE VERNAL LAKE WITH LIMNANTHES DOUGLASII, LASTHENIA GLABERRIMA, ALLOCARYA STIPITATA MICRANTHA. OTHER RARE PLANTS HERE: NAVARRETIA PLIEANTHA AND ORCUTTIA TENUIS.

Threats:
SURROUNDING AREA IS IN RANCHETTES, NO VISIBLE DISTURBANCES AT THIS SITE IN 1989, EXCEPT POSSIBLY GRAZING.

General:

PLSS: T12N, R06W, Sec. 32, NE (M)
Accuracy: specific area
Area (acres): 7
UTM: Zone-10 N4299786 E539413
Latitude/Longitude: 38.84601 / -122.54582
Elevation (feet): 1,840

County Summary:	Quad Summary:
Lake	Middletown (3812275)

Sources:

BIT89F0012 BITTMAN, R. & N. MCCARTEN - FIELD SURVEY FORM FOR GRATIOLA HETEROSEPALA 1989-04-29

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 45429
EO Index: 45429
Key Quad: Jericho Valley (3812274)
Element Code: PMLIL0V0F0
Occurrence Number: 96
Occurrence Last Updated: 2001-08-09

Scientific Name: *Fritillaria pluriflora*
Common Name: adobe-lily

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2G3
State: S2S3

Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:
CHAPARRAL, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
USUALLY ON CLAY SOILS; SOMETIMES SERPENTINE. 45-945 M.

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:
JERICHO VALLEY, LAKE COUNTY.

Detailed Location:

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS LIST OF LOCATIONS FROM CALLIZO; NEEDS FIELDWORK.

PLSS: T11N, R05W, Sec. 05, E (M)
Accuracy: 2/5 mile
Area (acres): 0
UTM: Zone-10 N4298415 E549001
Latitude/Longitude: 38.83317 / -122.43544
Elevation (feet):

County Summary:
Lake

Quad Summary:
Jericho Valley (3812274)

Sources:
CAL98U0001 CALLIZO, J. - SUMMARY OF POPULATIONS OF FRITILLARIA PLURIFLORA 1998-02-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 45430
EO Index: 45430
Key Quad: Jericho Valley (3812274)
Element Code: PMLIL0V0F0
Occurrence Number: 97
Occurrence Last Updated: 2018-05-08

Scientific Name: *Fritillaria pluriflora*
Common Name: adobe-lily

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2G3
State: S2S3

Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:
CHAPARRAL, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
USUALLY ON CLAY SOILS; SOMETIMES SERPENTINE. 45-945 M.

Last Date Observed: 2015-02-22
Last Survey Date: 2015-02-22
Owner/Manager: PVT
Presence: Presumed Extant

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

Location:
JERUSALEM VALLEY, EAST OF SODA CREEK, 1.5 AIR MILES SW OF PEAK OF BISHOP MOUNTAIN.

Detailed Location:
MAPPED BY CNDDB IN THE WEST HALF OF SECTION 13 BASED ON 2015 TOREN COORDINATES.

Ecological:
BLUE OAK WOODLAND, SUNNY CLAY SOIL.

Threats:

General:
SITE BASED ON A 2015 TOREN COLLECTION. UNDATED OBSERVATION FROM "JERUSALEM VALLEY" ATTRIBUTED HERE.

PLSS: T11N, R06W, Sec. 13, W (M)
Accuracy: 80 meters
Area (acres): 5
UTM: Zone-10 N4295219 E545073
Latitude/Longitude: 38.80458 / -122.4809
Elevation (feet): 1,025

County Summary:	Quad Summary:
Lake	Jericho Valley (3812274)

Sources:

CAL98U0001 CALLIZO, J. - SUMMARY OF POPULATIONS OF FRITILLARIA PLURIFLORA 1998-02-XX

TOR15S0001 TOREN, D. & E. DEARING - TOREN #10272 CAS #1197834, CAS-BOT-BC #433234 2015-02-22

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	08603	**EO Index:**	26501
Key Quad:	Middletown (3812275)	**Element Code:**	PMPOA4G050
Occurrence Number:	36	**Occurrence Last Updated:**	1996-01-26

Scientific Name: *Orcuttia tenuis*

Common Name: slender Orcutt grass

Listing Status: **Federal:** Threatened

State: Endangered

Rare Plant Rank: 1B.1

Other Lists: SB_UCBG-UC Botanical Garden at Berkeley

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

VERNAL POOLS.

Micro Habitat:

OFTEN IN GRAVELLY SUBSTRATE. 25-1755 M.

Last Date Observed:	1987-06-29	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1987-06-29	**Occurrence Rank:**	Good
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

NORTHWESTERN-MOST LAKE OF STIENHART LAKES, NORTH OF COYOTE VALLEY.

Detailed Location:

Ecological:

ARTIFICIAL POND IN VOLCANIC ASH VERNAL POOL. NAVARRETIA PLIEANTHA IN POOL ALSO. GRATIOLA HETEROSEPALA IN POOLS NEARBY.

Threats:

NO VISIBLE DISTURBANCES, THOUGH GRAZING MAY OCCUR.

General:

A FEW HUNDRED PLANTS SEEN IN 1987.

PLSS:	T12N, R06W, Sec. 32, NE (M)	**Accuracy:**	specific area	**Area (acres):**	7
UTM:	Zone-10 N4299786 E539413	**Latitude/Longitude:**	38.84601 / -122.54582	**Elevation (feet):**	1,840

County Summary:	**Quad Summary:**
Lake	Middletown (3812275)

Sources:

BIO88R0001	BIOSYSTEMS ANALYSIS, INC. - STATUS SURVEY OF THE GRASS TRIBE ORCUTTIEAE AND CHAMAESYCE HOOVERI IN THE CENTRAL VALLEY OF CALIFORNIA 1988-09-XX
MCC87F0003	MCCARTEN, N. ET AL. - FIELD SURVEY FORM FOR NAVARRETIA LEUCOCEPHALA SSP. PLIEANTHA & ORCUTTIA TENUIS 1987-06-29

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially 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.

Location

Lake 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.

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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. IPaC only shows species that are regulated by USFWS (see FAQ).
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:

Birds

NAME	STATUS
Northern Spotted Owl Strix occidentalis caurina Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/1123	Threatened

Fishes

NAME	STATUS
Delta Smelt Hypomesus transpacificus Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/321	Threatened

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Crustaceans

NAME	STATUS
Conservancy Fairy Shrimp Branchinecta conservatio Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/8246	Endangered

Flowering Plants

NAME	STATUS
Burke's Goldfields Lasthenia burkei Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4338	Endangered
Keck's Checker-mallow Sidalcea keckii Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/5704	Endangered

Lake County Stonecrop Parvisedum leiocarpum — Endangered
Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/2263

Many-flowered Navarretia Navarretia leucocephala ssp. plieantha — Endangered
Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/2491

Slender Orcutt Grass Orcuttia tenuis — Threatened
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/1063

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.

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 https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.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.

NAME	BREEDING SEASON
California Thrasher Toxostoma redivivum This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jan 1 to Jul 31
Nuttall's Woodpecker Picoides nuttallii 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/9410	Breeds Apr 1 to Jul 20
Oak Titmouse Baeolophus inornatus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9656	Breeds Mar 15 to Jul 15
Wrentit Chamaea fasciata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 10

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.
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.

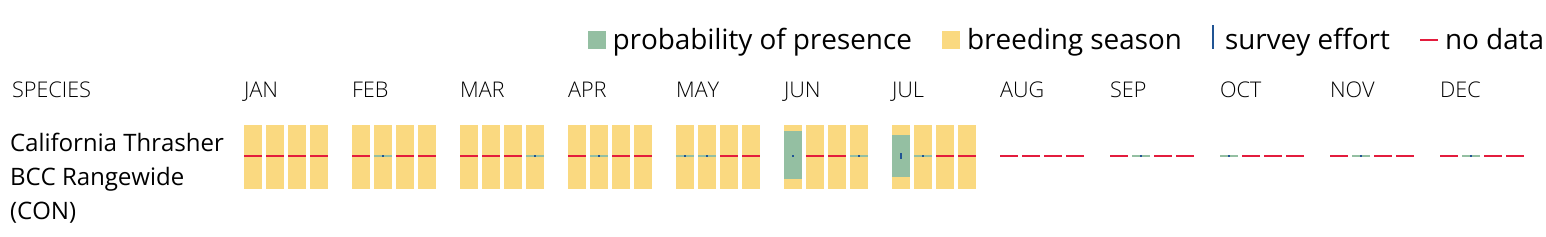
Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

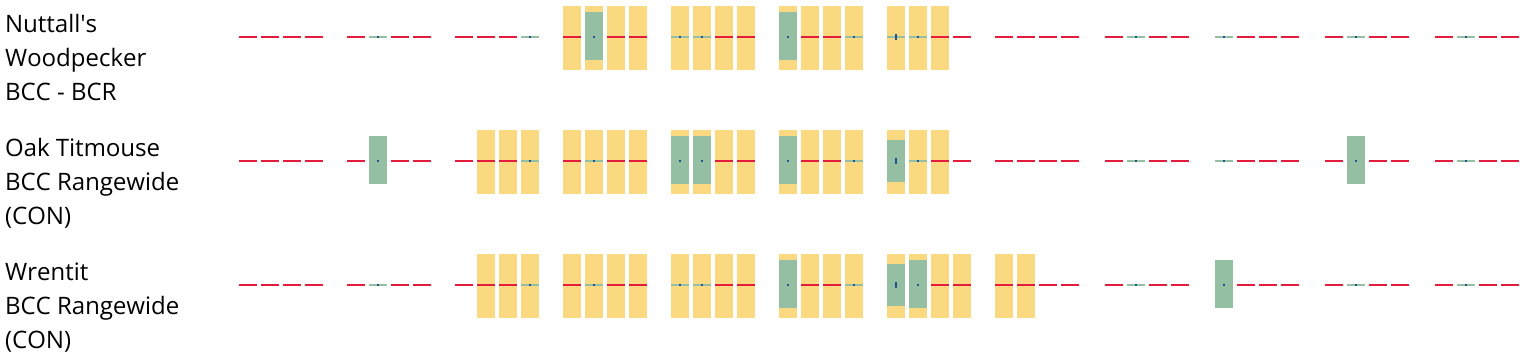
Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

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.





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 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 list of migratory birds that potentially occur 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 Rapid Avian Information Locator (RAIL) 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 or migrating in my area?

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 query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. 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 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.

Coastal Barrier Resources System

Projects within the John H. Chafee Coastal Barrier Resources System (CBRS) may be subject to the restrictions on federal expenditures and financial assistance and the consultation requirements of the Coastal Barrier Resources Act (CBRA) (16 U.S.C. 3501 et seq.). For more information, please contact the local Ecological Services Field Office or visit the CBRA Consultations website. The CBRA website provides tools such as a flow chart to help determine whether consultation is required and a template to facilitate the consultation process.

There are no known coastal barriers at this location.

Data limitations

The CBRS boundaries used in IPaC are representations of the controlling boundaries, which are depicted on the official CBRS maps. The boundaries depicted in this layer are not to be considered authoritative for in/out determinations close to a CBRS boundary (i.e., within the "CBRS Buffer Zone" that appears as a hatched area on either side of the boundary). For projects that are very close to a CBRS boundary but do not clearly intersect a unit, you may contact the Service for an official determination by following the instructions here: https://www.fws.gov/service/coastal-barrier-resources-system-property-documentation

Data exclusions

CBRS units extend seaward out to either the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward extent of the units is not shown in the CBRS data, therefore projects in the offshore areas of units (e.g., dredging, breakwaters, offshore wind energy or oil and gas projects) may be subject to CBRA even if they do not intersect the CBRS data. For additional information, please contact CBRA@fws.gov.

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.

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

Riverine

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

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

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.

Element_Type	Scientific_Name	Common_Name	Element_Code	Federal_Status	State_Status	CDFW_Status	CA_Rare_Plant_Rank	Quad_Code	Quad_Name	Data_Status	Taxonomic_So
Animals - Amphibians	Rana boylii pop. 1	foothill yellow-legged frog - north coast DPS	AAABH01051	None	None	SSC	-	3812274	JERICHO VALLEY	Mapped	Animals - Amphibians - Ranidae - Rana boylii pop. 1
Animals - Birds	Aquila chrysaetos	golden eagle	ABNKC22010	None	None	FP | WL	-	3812274	JERICHO VALLEY	Mapped	Animals - Birds - Accipitridae - Aquila chrysaetos
Animals - Birds	Haliaeetus leucocephalus	bald eagle	ABNKC10010	Delisted	Endangered	FP	-	3812274	JERICHO VALLEY	Mapped and Unprocessed	Animals - Birds - Accipitridae - Haliaeetus leucocephalus
Animals - Birds	Falco mexicanus	prairie falcon	ABNKD06090	None	None	WL	-	3812274	JERICHO VALLEY	Mapped	Animals - Birds - Falconidae - Falco mexicanus
Animals - Insects	Bombus crotchii	Crotch bumble bee	IIHYM24480	None	Candidate Endangered	-	-	3812274	JERICHO VALLEY	Unprocessed	Animals - Insect - Apidae - Bombus crotchii
Animals - Mammals	Antrozous pallidus	pallid bat	AMACC10010	None	None	SSC	-	3812274	JERICHO VALLEY	Unprocessed	Animals - Mammals - Vespertilionidae Antrozous pallidus
Animals - Mammals	Corynorhinus townsendii	Townsends big-eared bat	AMACC08010	None	None	SSC	-	3812274	JERICHO VALLEY	Mapped	Animals - Mammals - Vespertilionidae Corynorhinus townsendii
Animals - Mammals	Myotis yumanensis	Yuma myotis	AMACC01020	None	None	-	-	3812274	JERICHO VALLEY	Unprocessed	Animals - Mammals - Vespertilionidae Myotis yumanensis
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	Proposed Threatened	None	SSC	-	3812274	JERICHO VALLEY	Mapped and Unprocessed	Animals - Reptiles - Emydidae - Emys marmorat
Community - Terrestrial	Northern Interior Cypress Forest	Northern Interior Cypress Forest	CTT83220CA	None	None	-	-	3812274	JERICHO VALLEY	Mapped	Community - Terrestrial - Northern Interior Cypress Forest
Community - Terrestrial	Serpentine Bunchgrass	Serpentine Bunchgrass	CTT42130CA	None	None	-	-	3812274	JERICHO VALLEY	Mapped	Community - Terrestrial - Serpentine Bunchgrass
Plants - Bryophytes	Grimmia torenii	Torens grimmia	NBMUS32330	None	None	-	1B.3	3812274	JERICHO VALLEY	Mapped	Plants - Bryophytes - Grimmiaceae - Grimmia torenii
Plants - Vascular	Allium fimbriatum var. purdyi	Purdys onion	PMLIL020Y7	None	None	-	4.3	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Alliaceae - Allium fimbriatur var. purdyi
Plants - Vascular	Lomatium hooveri	Hoovers lomatium	PDAPI1B2K0	None	None	-	4.3	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Apiaceae -

											Lomatium hooveri
Plants - Vascular	Asclepias solanoana	serpentine milkweed	PDASC021R0	None	None	-	4.2	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Apocynaceae - Asclepias solanoana
Plants - Vascular	Balsamorhiza macrolepis	big-scale balsamroot	PDAST11061	None	None	-	1B.2	3812274	JERICHO VALLEY	Mapped	Plants - Vascula - Asteraceae - Balsamorhiza macrolepis
Plants - Vascular	Harmonia hallii	Halls harmonia	PDAST650A0	None	None	-	1B.2	3812274	JERICHO VALLEY	Mapped	Plants - Vascula - Asteraceae - Harmonia hallii
Plants - Vascular	Layia septentrionalis	Colusa layia	PDAST5N0F0	None	None	-	1B.2	3812274	JERICHO VALLEY	Mapped	Plants - Vascula - Asteraceae - Layia septentrionalis
Plants - Vascular	Senecio clevelandii var. clevelandii	Clevelands ragwort	PDAST8H0R1	None	None	-	4.3	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Asteraceae - Senecio clevelandii var. clevelandii
Plants - Vascular	Amsinckia lunaris	bent-flowered fiddleneck	PDBOR01070	None	None	-	1B.2	3812274	JERICHO VALLEY	Mapped	Plants - Vascula - Boraginaceae - Amsinckia lunaris
Plants - Vascular	Arabis modesta	modest rockcress	PDBRA06180	None	None	-	4.3	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Brassicaceae - Arabis modesta
Plants - Vascular	Arabis oregana	Oregon rockcress	PDBRA061A0	None	None	-	4.3	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Brassicaceae - Arabis oregana
Plants - Vascular	Streptanthus brachiatus ssp. hoffmanii	Freeds jewelflower	PDBRA2G071	None	None	-	1B.2	3812274	JERICHO VALLEY	Mapped	Plants - Vascula - Brassicaceae - Streptanthus brachiatus ssp. hoffmanii
Plants - Vascular	Streptanthus hesperidis	green jewelflower	PDBRA2G510	None	None	-	1B.2	3812274	JERICHO VALLEY	Mapped and Unprocessed	Plants - Vascula - Brassicaceae - Streptanthus hesperidis
Plants - Vascular	Streptanthus morrisonii ssp. kruckebergii	Kruckebergs jewelflower	PDBRA2G0S4	None	None	-	1B.2	3812274	JERICHO VALLEY	Mapped	Plants - Vascula - Brassicaceae - Streptanthus morrisonii ssp. kruckebergii
Plants - Vascular	Equisetum palustre	marsh horsetail	PPEQU01050	None	None	-	3	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Equisetaceae - Equisetum palustre
Plants - Vascular	Astragalus breweri	Brewers milk-vetch	PDFAB0F1J0	None	None	-	4.2	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Fabaceae - Astragalus breweri
Plants - Vascular	Astragalus clevelandii	Clevelands milk-vetch	PDFAB0F250	None	None	-	4.3	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Fabaceae -

											Astragalus clevelandii
Plants - Vascular	Astragalus rattanii var. jepsonianus	Jepsons milk-vetch	PDFAB0F7E1	None	None	-	1B.2	3812274	JERICHO VALLEY	Mapped and Unprocessed	Plants - Vascula - Fabaceae - Astragalus rattanii var. jepsonianus
Plants - Vascular	Erythronium helenae	St. Helena fawn lily	PMLIL0U060	None	None	-	4.2	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Liliaceae - Erythronium helenae
Plants - Vascular	Fritillaria pluriflora	adobe-lily	PMLIL0V0F0	None	None	-	1B.2	3812274	JERICHO VALLEY	Mapped and Unprocessed	Plants - Vascula - Liliaceae - Fritillaria pluriflora
Plants - Vascular	Fritillaria purdyi	Purdys fritillary	PMLIL0V0H0	None	None	-	4.3	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Liliaceae - Fritillaria purdyi
Plants - Vascular	Hesperolinon bicarpellatum	two-carpellate western flax	PDLIN01020	None	None	-	1B.2	3812274	JERICHO VALLEY	Mapped and Unprocessed	Plants - Vascula - Linaceae - Hesperolinon bicarpellatum
Plants - Vascular	Hesperolinon drymarioides	drymaria-like western flax	PDLIN01090	None	None	-	1B.2	3812274	JERICHO VALLEY	Mapped	Plants - Vascula - Linaceae - Hesperolinon drymarioides
Plants - Vascular	Hesperolinon sharsmithiae	Sharsmiths western flax	PDLIN010E0	None	None	-	1B.2	3812274	JERICHO VALLEY	Mapped	Plants - Vascula - Linaceae - Hesperolinon sharsmithiae
Plants - Vascular	Malacothamnus helleri	Hellers bush-mallow	PDMAL0Q0G0	None	None	-	3.3	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Malvaceae - Malacothamnus helleri
Plants - Vascular	Sidalcea keckii	Kecks checkerbloom	PDMAL110D0	Endangered	None	-	1B.1	3812274	JERICHO VALLEY	Mapped and Unprocessed	Plants - Vascula - Malvaceae - Sidalcea keckii
Plants - Vascular	Toxicoscordion fontanum	marsh zigadenus	PMLIL28050	None	None	-	4.2	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Melanthiaceae Toxicoscordion fontanum
Plants - Vascular	Calyptridium quadripetalum	four-petaled pussypaws	PDPOR09080	None	None	-	4.3	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Montiaceae - Calyptridium quadripetalum
Plants - Vascular	Clarkia gracilis ssp. tracyi	Tracys clarkia	PDONA050J4	None	None	-	4.2	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Onagraceae - Clarkia gracilis ssp. tracyi
Plants - Vascular	Piperia leptopetala	narrow-petaled rein orchid	PMORC1X100	None	None	-	4.3	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Orchidaceae - Piperia leptopetala
Plants - Vascular	Aphyllon validum ssp. howellii	Howells broomrape	PDORO040G1	None	None	-	4.3	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Orobanchacea - Aphyllon

											validum ssp. howellii
Plants - Vascular	Castilleja rubicundula var. rubicundula	pink creamsacs	PDSCR0D482	None	None	-	1B.2	3812274	JERICHO VALLEY	Mapped and Unprocessed	Plants - Vascula - Orobanchacea - Castilleja rubicundula var. rubicundula
Plants - Vascular	Cordylanthus tenuis ssp. brunneus	serpentine birds-beak	PDSCR0J0S1	None	None	-	4.3	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Orobanchacea - Cordylanthus tenuis ssp. brunneus
Plants - Vascular	Erythranthe nudata	bare monkeyflower	PDSCR1B200	None	None	-	4.3	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Phrymaceae - Erythranthe nudata
Plants - Vascular	Antirrhinum virga	twig-like snapdragon	PDSCR2S090	None	None	-	4.3	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Plantaginacea - Antirrhinum virga
Plants - Vascular	Collomia diversifolia	serpentine collomia	PDPLM02020	None	None	-	4.3	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Polemoniacea - Collomia diversifolia
Plants - Vascular	Leptosiphon latisectus	broad-lobed leptosiphon	PDPLM09150	None	None	-	4.3	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Polemoniacea - Leptosiphon latisectus
Plants - Vascular	Navarretia jepsonii	Jepsons navarretia	PDPLM0C0D0	None	None	-	4.3	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Polemoniacea - Navarretia jepsonii
Plants - Vascular	Eriogonum nervulosum	Snow Mountain buckwheat	PDPGN08440	None	None	-	1B.2	3812274	JERICHO VALLEY	Mapped	Plants - Vascula - Polygonaceae Eriogonum nervulosum
Plants - Vascular	Eriogonum tripodum	tripod buckwheat	PDPGN085Y0	None	None	-	4.2	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Polygonaceae Eriogonum tripodum
Plants - Vascular	Delphinium uliginosum	swamp larkspur	PDRAN0B1V0	None	None	-	4.2	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Ranunculacea - Delphinium uliginosum

Element_Type	Scientific_Name	Common_Name	Element_Code	Federal_Status	State_Status	CDFW_Status	CA_Rare_Plant_Rank	Quad_Code	Quad_Name	Data_Status	Taxonomic_S
Animals - Amphibians	Rana boylii pop. 1	foothill yellow-legged frog - north coast DPS	AAABH01051	None	None	SSC	-	3812275	MIDDLETOWN	Mapped and Unprocessed	Animals - Amphibians - Ranidae - Ran boylii pop. 1
Animals - Birds	Haliaeetus leucocephalus	bald eagle	ABNKC10010	Delisted	Endangered	FP	-	3812275	MIDDLETOWN	Mapped and Unprocessed	Animals - Bird Accipitridae - Haliaeetus leucocephalus
Animals - Mammals	Corynorhinus townsendii	Townsends big-eared bat	AMACC08010	None	None	SSC	-	3812275	MIDDLETOWN	Mapped	Animals - Mammals - Vespertilionida Corynorhinus townsendii
Animals - Mammals	Lasionycteris noctivagans	silver-haired bat	AMACC02010	None	None	-	-	3812275	MIDDLETOWN	Mapped	Animals - Mammals - Vespertilionida Lasionycteris noctivagans
Animals - Mammals	Lasiurus cinereus	hoary bat	AMACC05032	None	None	-	-	3812275	MIDDLETOWN	Mapped	Animals - Mammals - Vespertilionida Lasiurus cinereus
Animals - Mammals	Myotis yumanensis	Yuma myotis	AMACC01020	None	None	-	-	3812275	MIDDLETOWN	Unprocessed	Animals - Mammals - Vespertilionida Myotis yumanensis
Animals - Mollusks	Margaritifera falcata	western pearlshell	IMBIV27020	None	None	-	-	3812275	MIDDLETOWN	Unprocessed	Animals - Mollusks - Margaritiferida Margaritifera falcata
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	Proposed Threatened	None	SSC	-	3812275	MIDDLETOWN	Mapped and Unprocessed	Animals - Reptiles - Emydidae - Emys marmor
Community - Terrestrial	Northern Basalt Flow Vernal Pool	Northern Basalt Flow Vernal Pool	CTT44131CA	None	None	-	-	3812275	MIDDLETOWN	Mapped	Community - Terrestrial - Northern Basa Flow Vernal P
Plants - Vascular	Lomatium hooveri	Hoovers lomatium	PDAPI1B2K0	None	None	-	4.3	3812275	MIDDLETOWN	Unprocessed	Plants - Vascu - Apiaceae - Lomatium hooveri
Plants - Vascular	Lomatium repostum	Napa lomatium	PDAPI1B1M0	None	None	-	4.2	3812275	MIDDLETOWN	Unprocessed	Plants - Vascu - Apiaceae - Lomatium repostum
Plants - Vascular	Erigeron greenei	Greenes narrow-leaved daisy	PDAST3M5G0	None	None	-	1B.2	3812275	MIDDLETOWN	Mapped	Plants - Vascu - Asteraceae - Erigeron gree
Plants - Vascular	Harmonia hallii	Halls harmonia	PDAST650A0	None	None	-	1B.2	3812275	MIDDLETOWN	Mapped	Plants - Vascu - Asteraceae - Harmonia hall

Plants - Vascular	Hemizonia congesta ssp. congesta	congested-headed hayfield tarplant	PDAST4R0W1	None	None	-	1B.2	3812275	MIDDLETOWN	Mapped	Plants - Vascu - Asteraceae - Hemizonia congesta ssp. congesta
Plants - Vascular	Lasthenia burkei	Burkes goldfields	PDAST5L010	Endangered	Endangered	-	1B.1	3812275	MIDDLETOWN	Mapped	Plants - Vascu - Asteraceae - Lasthenia bur
Plants - Vascular	Amsinckia lunaris	bent-flowered fiddleneck	PDBOR01070	None	None	-	1B.2	3812275	MIDDLETOWN	Mapped	Plants - Vascu - Boraginacea Amsinckia lunaris
Plants - Vascular	Streptanthus hesperidis	green jewelflower	PDBRA2G510	None	None	-	1B.2	3812275	MIDDLETOWN	Mapped	Plants - Vascu - Brassicacea Streptanthus hesperidis
Plants - Vascular	Legenere limosa	legenere	PDCAM0C010	None	None	-	1B.1	3812275	MIDDLETOWN	Mapped	Plants - Vascu - Campanulace - Legenere limosa
Plants - Vascular	Calystegia collina ssp. oxyphylla	Mt. Saint Helena morning-glory	PDCON04032	None	None	-	4.2	3812275	MIDDLETOWN	Mapped and Unprocessed	Plants - Vascu - Convolvulac - Calystegia collina ssp. oxyphylla
Plants - Vascular	Sedella leiocarpa	Lake County stonecrop	PDCRA0F020	Endangered	Endangered	-	1B.1	3812275	MIDDLETOWN	Mapped	Plants - Vascu - Crassulacea Sedella leioca
Plants - Vascular	Astragalus breweri	Brewers milk-vetch	PDFAB0F1J0	None	None	-	4.2	3812275	MIDDLETOWN	Unprocessed	Plants - Vascu - Fabaceae - Astragalus breweri
Plants - Vascular	Astragalus rattanii var. jepsonianus	Jepsons milk-vetch	PDFAB0F7E1	None	None	-	1B.2	3812275	MIDDLETOWN	Mapped	Plants - Vascu - Fabaceae - Astragalus rattanii var. jepsonianus
Plants - Vascular	Trifolium hydrophilum	saline clover	PDFAB400R5	None	None	-	1B.2	3812275	MIDDLETOWN	Mapped	Plants - Vascu - Fabaceae - Trifolium hydrophilum
Plants - Vascular	Calochortus uniflorus	pink star-tulip	PMLIL0D1F0	None	None	-	4.2	3812275	MIDDLETOWN	Unprocessed	Plants - Vascu - Liliaceae - Calochortus uniflorus
Plants - Vascular	Erythronium helenae	St. Helena fawn lily	PMLIL0U060	None	None	-	4.2	3812275	MIDDLETOWN	Unprocessed	Plants - Vascu - Liliaceae - Erythronium helenae
Plants - Vascular	Hesperolinon bicarpellatum	two-carpellate western flax	PDLIN01020	None	None	-	1B.2	3812275	MIDDLETOWN	Mapped and Unprocessed	Plants - Vascu - Linaceae - Hesperolinon bicarpellatum
Plants - Vascular	Hesperolinon didymocarpum	Lake County western flax	PDLIN01070	None	Endangered	-	1B.2	3812275	MIDDLETOWN	Mapped and Unprocessed	Plants - Vascu - Linaceae -

											Hesperolinon didymocarpun
Plants - Vascular	Hesperolinon sharsmithiae	Sharsmiths western flax	PDLIN010E0	None	None	-	1B.2	3812275	MIDDLETOWN	Mapped	Plants - Vascu - Linaceae - Hesperolinon sharsmithiae
Plants - Vascular	Castilleja rubicundula var. rubicundula	pink creamsacs	PDSCR0D482	None	None	-	1B.2	3812275	MIDDLETOWN	Mapped	Plants - Vascu - Orobanchac - Castilleja rubicundula va rubicundula
Plants - Vascular	Erythranthe nudata	bare monkeyflower	PDSCR1B200	None	None	-	4.3	3812275	MIDDLETOWN	Unprocessed	Plants - Vascu - Phrymaceae Erythranthe nudata
Plants - Vascular	Gratiola heterosepala	Boggs Lake hedge-hyssop	PDSCR0R060	None	Endangered	-	1B.2	3812275	MIDDLETOWN	Mapped	Plants - Vascu - Plantaginace - Gratiola heterosepala
Plants - Vascular	Calamagrostis ophitidis	serpentine reed grass	PMPOA170V0	None	None	-	4.3	3812275	MIDDLETOWN	Unprocessed	Plants - Vascu - Poaceae - Calamagrostis ophitidis
Plants - Vascular	Orcuttia tenuis	slender Orcutt grass	PMPOA4G050	Threatened	Endangered	-	1B.1	3812275	MIDDLETOWN	Mapped	Plants - Vascu - Poaceae - Orcuttia tenuis
Plants - Vascular	Collomia diversifolia	serpentine collomia	PDPLM02020	None	None	-	4.3	3812275	MIDDLETOWN	Unprocessed	Plants - Vascu - Polemoniace - Collomia diversifolia
Plants - Vascular	Leptosiphon aureus	bristly leptosiphon	PDPLM09010	None	None	-	4.2	3812275	MIDDLETOWN	Unprocessed	Plants - Vascu - Polemoniace - Leptosiphon aureus
Plants - Vascular	Leptosiphon jepsonii	Jepsons leptosiphon	PDPLM09140	None	None	-	1B.2	3812275	MIDDLETOWN	Mapped	Plants - Vascu - Polemoniace - Leptosiphon jepsonii
Plants - Vascular	Leptosiphon latisectus	broad-lobed leptosiphon	PDPLM09150	None	None	-	4.3	3812275	MIDDLETOWN	Unprocessed	Plants - Vascu - Polemoniace - Leptosiphon latisectus
Plants - Vascular	Navarretia cotulifolia	cotula navarretia	PDPLM0C040	None	None	-	4.2	3812275	MIDDLETOWN	Unprocessed	Plants - Vascu - Polemoniace - Navarretia cotulifolia
Plants - Vascular	Navarretia jepsonii	Jepsons navarretia	PDPLM0C0D0	None	None	-	4.3	3812275	MIDDLETOWN	Unprocessed	Plants - Vascu - Polemoniace - Navarretia jepsonii
Plants - Vascular	Navarretia leucocephala ssp. bakeri	Bakers navarretia	PDPLM0C0E1	None	None	-	1B.1	3812275	MIDDLETOWN	Mapped	Plants - Vascu - Polemoniace - Navarretia leucocephala ssp. bakeri
Plants - Vascular	Navarretia leucocephala	many-flowered navarretia	PDPLM0C0E5	Endangered	Endangered	-	1B.2	3812275	MIDDLETOWN	Mapped	Plants - Vascu - Polemoniace

	ssp. plieantha										- Navarretia leucocephala ssp. plieantha
Plants - Vascular	Navarretia paradoxinota	Porters navarretia	PDPLM0C160	None	None	-	1B.3	3812275	MIDDLETOWN	Mapped	Plants - Vascu - Polemoniace - Navarretia paradoxinota
Plants - Vascular	Delphinium uliginosum	swamp larkspur	PDRAN0B1V0	None	None	-	4.2	3812275	MIDDLETOWN	Unprocessed	Plants - Vascu - Ranunculace - Delphinium uliginosum

CALIFORNIA NATIVE PLANT SOCIETY

CNPS Rare Plant Inventory

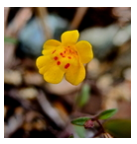
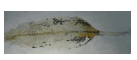
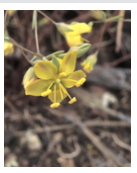
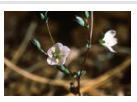
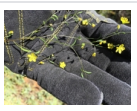
Search Results

41 matches found. Click on scientific name for details

Search Criteria: Quad is one of [**3812274**]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	CA ENDEMIC	DATE ADDED	PHOTO
Allium fimbriatum var. *purdyi*	Purdy's onion	Alliaceae	perennial bulbiferous herb	Apr-Jun	None	None	G4G5T3	S3	4.3	Yes	1980-01-01	 © 2014 Steve Matson
Amsinckia lunaris	bent-flowered fiddleneck	Boraginaceae	annual herb	Mar-Jun	None	None	G3	S3	1B.2	Yes	1974-01-01	 © 2011 Neal Kramer
Antirrhinum virga	twig-like snapdragon	Plantaginaceae	perennial herb	Jun-Jul	None	None	G3?	S3?	4.3	Yes	1974-01-01	 © 2013 Aaron Schusteff
Aphyllon validum ssp. *howellii*	Howell's broomrape	Orobanchaceae	perennial herb (parasitic)	Jun-Sep	None	None	G4T3	S3	4.3	Yes	1984-01-01	No Photo Available
Arabis modesta	modest rockcress	Brassicaceae	perennial herb	Mar-Jul	None	None	G3	S3	4.3		1974-01-01	 ©2014 Scot Loring
Arabis oregana	Oregon rockcress	Brassicaceae	perennial herb	May	None	None	G3G4Q	S3	4.3		1974-01-01	 ©2021 Scot Loring

Asclepias solanoana	serpentine milkweed	Apocynaceae	perennial herb	May-Jul(Aug)	None	None	G3	S3	4.2	Yes	1974-01-01	 © 2009 Julie Kierstead Nelson
Astragalus breweri	Brewer's milk-vetch	Fabaceae	annual herb	Apr-Jun	None	None	G3	S3	4.2	Yes	1974-01-01	No Photo Available
Astragalus clevelandii	Cleveland's milk-vetch	Fabaceae	perennial herb	Jun-Sep	None	None	G4	S4	4.3	Yes	1974-01-01	No Photo Available
Astragalus rattanii var. *jepsonianus*	Jepson's milk-vetch	Fabaceae	annual herb	Mar-Jun	None	None	G4T3	S3	1B.2	Yes	1988-01-01	No Photo Available
Balsamorhiza macrolepis	big-scale balsamroot	Asteraceae	perennial herb	Mar-Jun	None	None	G2	S2	1B.2	Yes	1974-01-01	 ©1998 Dean Wm. Taylor
Calyptridium quadripetalum	four-petaled pussypaws	Montiaceae	annual herb	Apr-Jun	None	None	G4	S4	4.3	Yes	1974-01-01	No Photo Available
Castilleja rubicundula var. *rubicundula*	pink creamsacs	Orobanchaceae	annual herb (hemiparasitic)	Apr-Jun	None	None	G5T2	S2	1B.2	Yes	2001-01-01	 ©2010 Vernon Smith
Clarkia gracilis ssp. *tracyi*	Tracy's clarkia	Onagraceae	annual herb	Apr-Jul	None	None	G5T3	S3	4.2	Yes	2001-01-01	No Photo Available
Collomia diversifolia	serpentine collomia	Polemoniaceae	annual herb	May-Jun	None	None	G4	S4	4.3	Yes	1974-01-01	 ©2019 Zoya Akulova
Cordylanthus tenuis ssp. *brunneus*	serpentine bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	Jul-Aug	None	None	G4G5T3	S3	4.3	Yes	1988-01-01	No Photo Available
Delphinium uliginosum	swamp larkspur	Ranunculaceae	perennial herb	May-Jun	None	None	G3	S3	4.2	Yes	1974-01-01	No Photo Available
Equisetum palustre	marsh horsetail	Equisetaceae	perennial rhizomatous herb	Unk	None	None	G5	S1S3	3		1994-01-01	No Photo Available
Eriogonum nervulosum	Snow Mountain buckwheat	Polygonaceae	perennial rhizomatous herb	Jun-Sep	None	None	G2	S2	1B.2	Yes	1980-01-01	 © Rick York and CNPS

Eriogonum tripodum	tripod buckwheat	Polygonaceae	perennial deciduous shrub	May-Jul	None	None	G4	S4	4.2	Yes	1974-01-01	 ©2008 Steven Perry
Erythranthe nudata	bare monkeyflower	Phrymaceae	annual herb	May-Jun	None	None	G4	S4	4.3	Yes	1974-01-01	 John Doyen 2015
Erythronium helenae	St. Helena fawn lily	Liliaceae	perennial bulbiferous herb	Mar-May	None	None	G3	S3	4.2	Yes	1974-01-01	No Photo Available
Fritillaria pluriflora	adobe-lily	Liliaceae	perennial bulbiferous herb	Feb-Apr	None	None	G2G3	S2S3	1B.2	Yes	1974-01-01	 © 2015 Steve Matson
Fritillaria purdyi	Purdy's fritillary	Liliaceae	perennial bulbiferous herb	Mar-Jun	None	None	G4	S4	4.3		1974-01-01	 Aaron Schusteff, 2004
Grimmia torenii	Toren's grimmia	Grimmiaceae	moss		None	None	G2	S2	1B.3	Yes	2014-05-14	 ©2021 Scot Loring
Harmonia hallii	Hall's harmonia	Asteraceae	annual herb	(Mar)Apr-Jun	None	None	G2?	S2?	1B.2	Yes	1984-01-01	 © 2015 John Doyen
Hesperolinon bicarpellatum	two-carpellate western flax	Linaceae	annual herb	(Apr)May-Jul	None	None	G2	S2	1B.2	Yes	1974-01-01	 © 2016 John Doyen
Hesperolinon drymarioides	drymaria-like western flax	Linaceae	annual herb	May-Aug	None	None	G2	S2	1B.2	Yes	1974-01-01	 © Niall McCarten and CNPS
Hesperolinon sharsmithiae	Sharsmith's western flax	Linaceae	annual herb	May-Jul	None	None	G2Q	S2	1B.2	Yes	2012-12-14	 © 2017 Aaron Arthur

Layia septentrionalis	Colusa layia	Asteraceae	annual herb	Apr-May	None	None	G2	S2	1B.2	Yes	1994-01-01	 © 2013 Jake Ruygt
Leptosiphon latisectus	broad-lobed leptosiphon	Polemoniaceae	annual herb	Apr-Jun	None	None	G4	S4	4.3	Yes	2001-01-01	 © 2015 Steve Matson
Lomatium hooveri	Hoover's lomatium	Apiaceae	perennial herb	Apr-Jul	None	None	G3	S3	4.3	Yes	1980-01-01	No Photo Available
Malacothamnus helleri	Heller's bush-mallow	Malvaceae	perennial deciduous shrub	May-Jul	None	None	G2Q	S2	3.3	Yes	1974-01-01	 © 2017 Keir Morse
Navarretia jepsonii	Jepson's navarretia	Polemoniaceae	annual herb	Apr-Jun	None	None	G4	S4	4.3	Yes	1974-01-01	 © 2011 Vernon Smith
Piperia leptopetala	narrow-petaled rein orchid	Orchidaceae	perennial herb	May-Jul	None	None	G4	S4	4.3	Yes	2001-01-01	No Photo Available
Senecio clevelandii var. *clevelandii*	Cleveland's ragwort	Asteraceae	perennial herb	Jun-Jul	None	None	G4?T3Q	S3	4.3	Yes	1980-01-01	No Photo Available
Sidalcea keckii	Keck's checkerbloom	Malvaceae	annual herb	Apr-May(Jun)	FE	None	G2	S2	1B.1	Yes	1974-01-01	No Photo Available
Streptanthus brachiatus ssp. *hoffmanii*	Freed's jewelflower	Brassicaceae	perennial herb	May-Jul	None	None	G2T2	S2	1B.2	Yes	1994-01-01	No Photo Available
Streptanthus hesperidis	green jewelflower	Brassicaceae	annual herb	May-Jul	None	None	G2G3	S2S3	1B.2	Yes	2001-01-01	No Photo Available
Streptanthus morrisonii ssp. *kruckebergii*	Kruckeberg's jewelflower	Brassicaceae	perennial herb	Apr-Jul	None	None	G2T1	S1	1B.2	Yes	1994-01-01	No Photo Available
Toxicoscordion fontanum	marsh zigadenus	Melanthiaceae	perennial bulbiferous herb	Apr-Jul	None	None	G3	S3	4.2	Yes	2001-01-01	No Photo Available

Showing 1 to 41 of 41 entries

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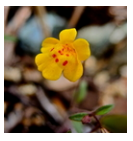
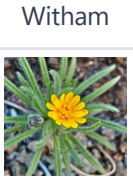
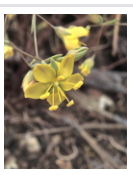
Search Criteria: Quad is one of [**3812275**]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	CA ENDEMIC	DATE ADDED	PHOTO
Amsinckia lunaris	bent-flowered fiddleneck	Boraginaceae	annual herb	Mar-Jun	None	None	G3	S3	1B.2	Yes	1974-01-01	 © 2011 Neal Kramer
Astragalus breweri	Brewer's milk-vetch	Fabaceae	annual herb	Apr-Jun	None	None	G3	S3	4.2	Yes	1974-01-01	No Photo Available
Astragalus rattanii var. *jepsonianus*	Jepson's milk-vetch	Fabaceae	annual herb	Mar-Jun	None	None	G4T3	S3	1B.2	Yes	1988-01-01	No Photo Available
Calamagrostis ophitidis	serpentine reed grass	Poaceae	perennial herb	Apr-Jul	None	None	G3	S3	4.3	Yes	1974-01-01	No Photo Available
Calochortus uniflorus	pink star-tulip	Liliaceae	perennial bulbiferous herb	Apr-Jun	None	None	G4	S4	4.2		2010-03-04	 © 2021 Scot Loring
Calystegia collina ssp. *oxyphylla*	Mt. Saint Helena morning-glory	Convolvulaceae	perennial rhizomatous herb	Apr-Jun	None	None	G4T3	S3	4.2	Yes	1984-01-01	No Photo Available
Castilleja rubicundula var. *rubicundula*	pink creamsacs	Orobanchaceae	annual herb (hemiparasitic)	Apr-Jun	None	None	G5T2	S2	1B.2	Yes	2001-01-01	 ©2010 Vernon Smith
Collomia diversifolia	serpentine collomia	Polemoniaceae	annual herb	May-Jun	None	None	G4	S4	4.3	Yes	1974-01-01	 ©2019 Zoya Akulova
Delphinium uliginosum	swamp larkspur	Ranunculaceae	perennial herb	May-Jun	None	None	G3	S3	4.2	Yes	1974-01-01	No Photo Available

Erigeron greenei	Greene's narrow-leaved daisy	Asteraceae	perennial herb	May-Sep	None	None	G3	S3	1B.2	Yes	1994-01-01	No Photo Available
Erythranthe nudata	bare monkeyflower	Phrymaceae	annual herb	May-Jun	None	None	G4	S4	4.3	Yes	1974-01-01	 John Doyen 2015
Erythronium helenae	St. Helena fawn lily	Liliaceae	perennial bulbiferous herb	Mar-May	None	None	G3	S3	4.2	Yes	1974-01-01	No Photo Available
Gratiola heterosepala	Boggs Lake hedge-hyssop	Plantaginaceae	annual herb	Apr-Aug	None	CE	G2	S2	1B.2		1974-01-01	 ©2004 Carol W. Witham
Harmonia hallii	Hall's harmonia	Asteraceae	annual herb	(Mar)Apr-Jun	None	None	G2?	S2?	1B.2	Yes	1984-01-01	 © 2015 John Doyen
Hemizonia congesta ssp. *congesta*	congested-headed hayfield tarplant	Asteraceae	annual herb	Apr-Nov	None	None	G5T2	S2	1B.2	Yes	1988-01-01	 © 2015 Vernon Smith
Hesperolinon bicarpellatum	two-carpellate western flax	Linaceae	annual herb	(Apr)May-Jul	None	None	G2	S2	1B.2	Yes	1974-01-01	 © 2016 John Doyen
Hesperolinon didymocarpum	Lake County western flax	Linaceae	annual herb	May-Jul	None	CE	G1	S1	1B.2	Yes	1974-01-01	 © 2018 Aaron Arthur
Hesperolinon sharsmithiae	Sharsmith's western flax	Linaceae	annual herb	May-Jul	None	None	G2Q	S2	1B.2	Yes	2012-12-14	 © 2017 Aaron Arthur
Lasthenia burkei	Burke's goldfields	Asteraceae	annual herb	Apr-Jun	FE	CE	G1	S1	1B.1	Yes	1974-01-01	 © 2015 Neal Kramer

Legenere limosa	legenere	Campanulaceae	annual herb	Apr-Jun	None	None	G2	S2	1B.1	Yes	1974-01-01	 ©2000 John Game
Leptosiphon aureus	bristly leptosiphon	Polemoniaceae	annual herb	Apr-Jul	None	None	G4?	S4?	4.2	Yes	1994-01-01	 © 2007 Len Blumin
Leptosiphon jepsonii	Jepson's leptosiphon	Polemoniaceae	annual herb	Mar-May	None	None	G2G3	S2S3	1B.2	Yes	2001-01-01	 © 2012 Aaron Arthur
Leptosiphon latisectus	broad-lobed leptosiphon	Polemoniaceae	annual herb	Apr-Jun	None	None	G4	S4	4.3	Yes	2001-01-01	 © 2015 Steve Matson
Lomatium hooveri	Hoover's lomatium	Apiaceae	perennial herb	Apr-Jul	None	None	G3	S3	4.3	Yes	1980-01-01	No Photo Available
Lomatium repostum	Napa lomatium	Apiaceae	perennial herb	Mar-Jun	None	None	G3	S3	4.2	Yes	1974-01-01	No Photo Available
Navarretia cotulifolia	cotula navarretia	Polemoniaceae	annual herb	May-Jun	None	None	G4	S4	4.2	Yes	2001-01-01	 © 2020 Zoya Akulova
Navarretia jepsonii	Jepson's navarretia	Polemoniaceae	annual herb	Apr-Jun	None	None	G4	S4	4.3	Yes	1974-01-01	 © 2011 Vernon Smith
Navarretia leucocephala ssp. *bakeri*	Baker's navarretia	Polemoniaceae	annual herb	Apr-Jul	None	None	G4T2	S2	1B.1	Yes	1994-01-01	 © 2018 Barry Rice
Navarretia leucocephala ssp. *plieantha*	many-flowered navarretia	Polemoniaceae	annual herb	May-Jun	FE	CE	G4T1	S1	1B.2	Yes	1974-01-01	No Photo Available
Navarretia paradoxinota	Porter's navarretia	Polemoniaceae	annual herb	May-Jun(Jul)	None	None	G2	S2	1B.3	Yes	2016-04-27	No Photo Available

Orcuttia tenuis	slender Orcutt grass	Poaceae	annual herb	May-Sep(Oct)	FT	CE	G2	S2	1B.1	Yes	1974-01-01	 © 2013 Justy Leppert
Sedella leiocarpa	Lake County stonecrop	Crassulaceae	annual herb	Apr-May	FE	CE	G1	S1	1B.1	Yes	1974-01-01	No Photo Available
Streptanthus hesperidis	green jewelflower	Brassicaceae	annual herb	May-Jul	None	None	G2G3	S2S3	1B.2	Yes	2001-01-01	No Photo Available
Trifolium hydrophilum	saline clover	Fabaceae	annual herb	Apr-Jun	None	None	G2	S2	1B.2	Yes	2001-01-01	 © 2005 Dean Wm Taylor

Showing 1 to 34 of 34 entries

Suggested Citation:

California Native Plant Society, Rare Plant Program. 2023. Rare Plant Inventory (online edition, v9.5). Website https://www.rareplants.cnps.org [accessed 8 December 2023].

From: **Greg Matuzak, Principal Biologist**
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Nevada City, CA 95959
Phone: (530) 557-5077
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To: **MIT Farms, LLC**
Jordyn Williams (main contact)
22430 & 22368 Jerusalem Grade
Middletown, CA 95461
Phone: (949) 243-4742
Email: jordyn@seaweedcapital.net

Date: April 29, 2024

Re: Special-Status Plant Survey Technical Memorandum for a Cannabis Cultivation Project Located at 22368 and 22430 Jerusalem Grade in Middletown, CA

This Special-Status Plant Survey Technical Memorandum (Tech Memo) is required for submission to the Lake County Planning Department as part of their review and approval process for a commercial cannabis cultivation project (Project) located within the following parcels: Parcel #1 APN: 136-071-020 at 22430 Jerusalem Grade, Middletown, CA and Parcel #2 APN: 136-071-030 at 22368 Jerusalem Grade, Middletown, CA. The special-status species surveys were implemented within the proposed areas of disturbance within the Project area as outlined within the attached Site Plan. See Appendix A for a Project Vicinity and Project Location map.

The proposed areas of disturbance include two (2) cultivation areas identified as Site #1 wholly located within APN: 136-071-020 and Site #2 located partially in both APN: 136-071-020 and APN: 136-071-030. As outlined within the attached Site Plan, an access road from Jerusalem Grade into the Project area and ancillary components are included as part of the Project. Ancillary components of the Project include a security center shed, pest and agricultural chemical storage shed, 5,000-gallon water tanks, access gates, fencing, and compost area. See Appendix B for Grading and Site Plan maps.

Special-status plant species with potential to occur within the Project area and their blooming season, which were identified by Mr. Matuzak from Greg Matuzak Environmental Consulting LLC, were based on the conclusions of the

Biological Resources Assessment (dated December 2023) covering the proposed Project area. The Biological Resources Assessment concluded the following regarding special-status plant species with potential to occur within the Project area:

- An additional botanical survey is recommended because the field survey (initially performed by Mr. Matuzak during the September 2, 2022 reconnaissance-level survey of the two parcels.) was not performed during the blooming period of most regionally-occurring rare plants.
- The survey should be focused on rare plants that have been reported in the vicinity by the CNDDB (within 3 miles of the subject parcels should be sufficient – see attached to this Tech Memo) and performed during the blooming period of the majority of target species.
- The survey should also focus on habitat types that are more likely to harbor rare species. If any special-status plant species are identified within any of the proposed areas of disturbance, the Project should either be redesigned to avoid impacts to those plants or a transplantation program to move the plants outside the disturbance areas to ensure that impacts to such special-status plants are minimized. This mitigation measure is for CNPS List 1 and List 2 species and any plant species listed under the ESA or CESA.
- If any listed species (or otherwise rare species protected by CDFW and/or USFWS) are detected, construction should be delayed, and the appropriate agency (CDFW and/or USFWS) should be consulted and project impacts and mitigation reassessed.

Special-Status Plant Methodology Implemented

For cannabis cultivation projects, Lake County Planning Department requires two (2) sets of focal special-status plant surveys within and adjacent to the proposed areas of disturbance within a given Project area. Lake County Planning Department requires 2 sets of surveys to be implemented and based on the Project area, special-status plant species surveys were required to be implemented within the early spring (month of February through March) and a follow up special-status plant species surveys for mid to late blooming species (month of April through May). These 2 sets of surveys are required given the special-status plant species with any likelihood to occur within the Project area would be blooming within the early spring and mid to late spring survey timeframes.

Therefore, Mr. Matuzak, a CDFW Qualified Biologist, conducted an updated review the background database searches of the USFWS IPaC, CDFW CNDDB, and CNPS inventory of rare and endangered plants for the Project area to identify previously recorded special-status plant species within the greater Project area. Based on the special-status plant species with potential to occur within the Project area and their blooming season, Mr. Matuzak conducted 2 sets of focal special-status plant surveys within and adjacent to the proposed areas of disturbance within the Project area.

The first set of special-status plant surveys were conducted on March 31, 2024 during the early spring blooming season and the second set of special-status plant surveys were conducted on April 28, 2024 during the mid to late spring blooming season. These 2 sets of focal special-status plant surveys were sufficient to ensure the proposed areas of disturbance within the Project area were surveyed during the blooming period for CNPS List 1 and List 2 species. During both sets of surveys, the entirety of the proposed areas of disturbance as outlined within the attached Site and Grading Plans (Appendix B) were walked on foot to ensure full coverage of the areas of potential disturbance within the Project area. Plant species identified during the surveys were recorded and the attached species list represents the species identified during both surveys (see Appendix C and a Photo Log is attached in Appendix D).

Results and Conclusions

Mr. Matuzak conducted 2 sets of special-status plant surveys, including a survey during the early spring blooming period (Feb-March) and a follow up survey during the mid to late blooming period (April-May). No special-status plant species were identified during the implementation of the 2 sets of special-status plant surveys. Therefore, the proposed Project can move forward without any additional mitigation or avoidance requirements pertaining to special-status plants given the lack of CNPS List 1 and 2 plant species (and a lack of CNPS List 3 and 4 species) being identified within the Project disturbance areas.

These 2 sets of focal special-status plant surveys were sufficient to ensure the proposed areas of disturbance within the Project area were surveyed during the blooming period for CNPS List 1 and List 2 species. CNPS List 1 and List 2 plant species are protected under CEQA. CEQA Guidelines Section 15380(b) states the following:

- *CNPS 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.

CNPS List 3 and 4 species are watch list species and are not protected under CEQA requiring mitigation given project related impacts to CNPS List 3 and List 4 plant species is not considered "significant" under CEQA. Therefore, the 2 sets of surveys adequately assess the plant species that are protected under CEQA (CNPS List 1 and List 2 or State and Federal ESA listed species). Furthermore, no CNPS List 3 or List 4 species were identified during the special-status plant surveys conducted in the early and mid to late blooming periods. For the species that are known to bloom after May, suitable habitat for those species was not identified within the Project disturbance areas effectively ruling out their potential presence within the Project area. See Appendix E for a list of CNDDB and CNPS plant species previously identified within the two USGS Quads that the Project is located within.

Therefore, this Special-Status Plant Survey Technical Memorandum was developed by a CDFW Qualified Biologist and the author of the Biological Resources Assessment report covering the proposed Project (developed by Greg Matuzak and dated December 2023). The results of the 2 required special-status plant surveys within the proposed areas of disturbance within the Project area demonstrate that no special-status plant species are located within any area proposed for development or that will be disturbed. Additionally, suitable habitat for CNPS list species with blooming periods outside of the 2 survey windows does not occur within the Project area, effectively ruling out the potential presence of those species.

Let me know if you have any questions or comments related to this Special-Status Plant Survey Technical Memorandum developed for the proposed Project. I can be contacted at my phone number and email address listed at the top of this Tech Memo.

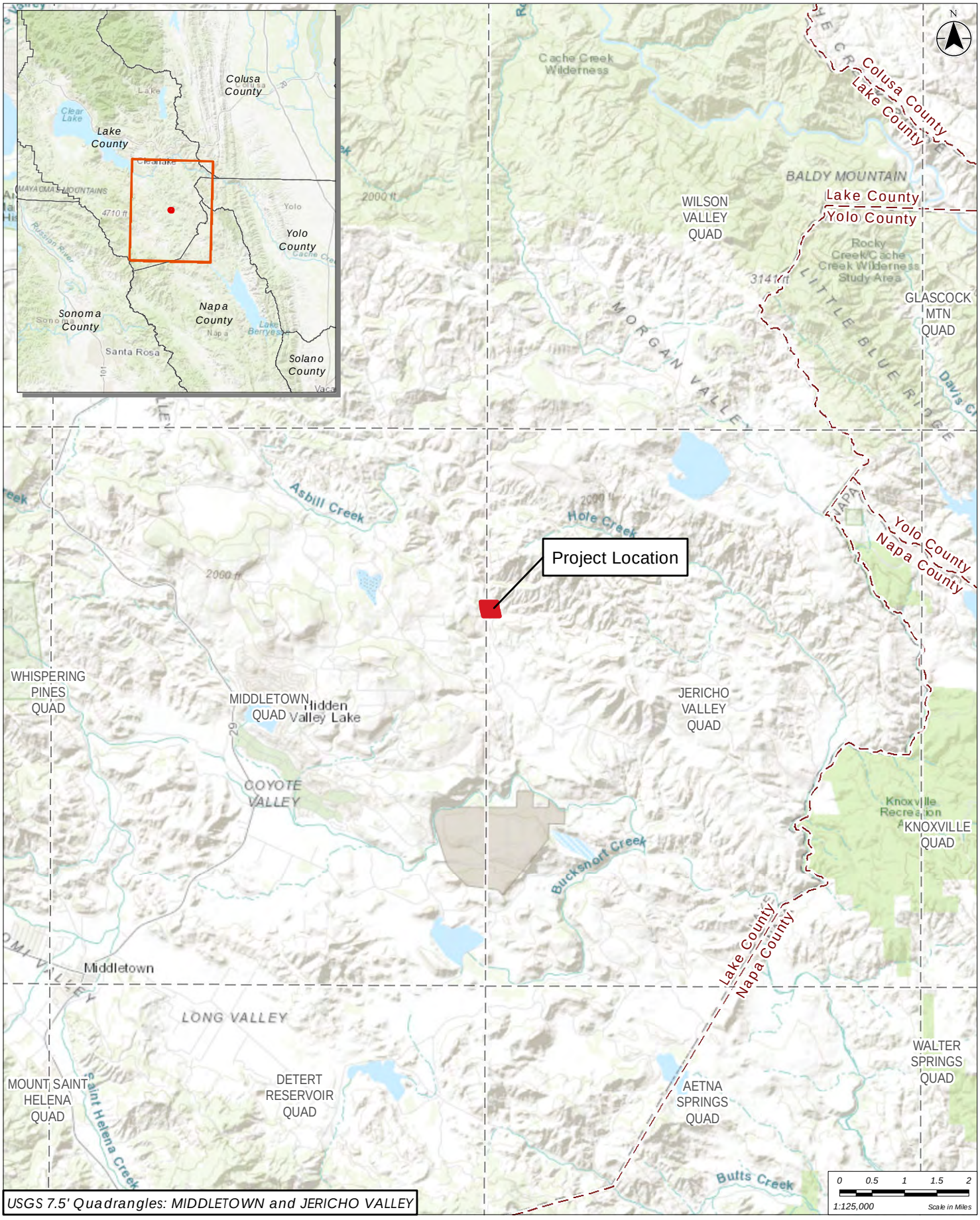
Regards,

Greg Matuzak, Principal Biologist
Greg Matuzak Environmental Consulting LLC

Appendices

Appendix A

Project Vicinity and Location Maps



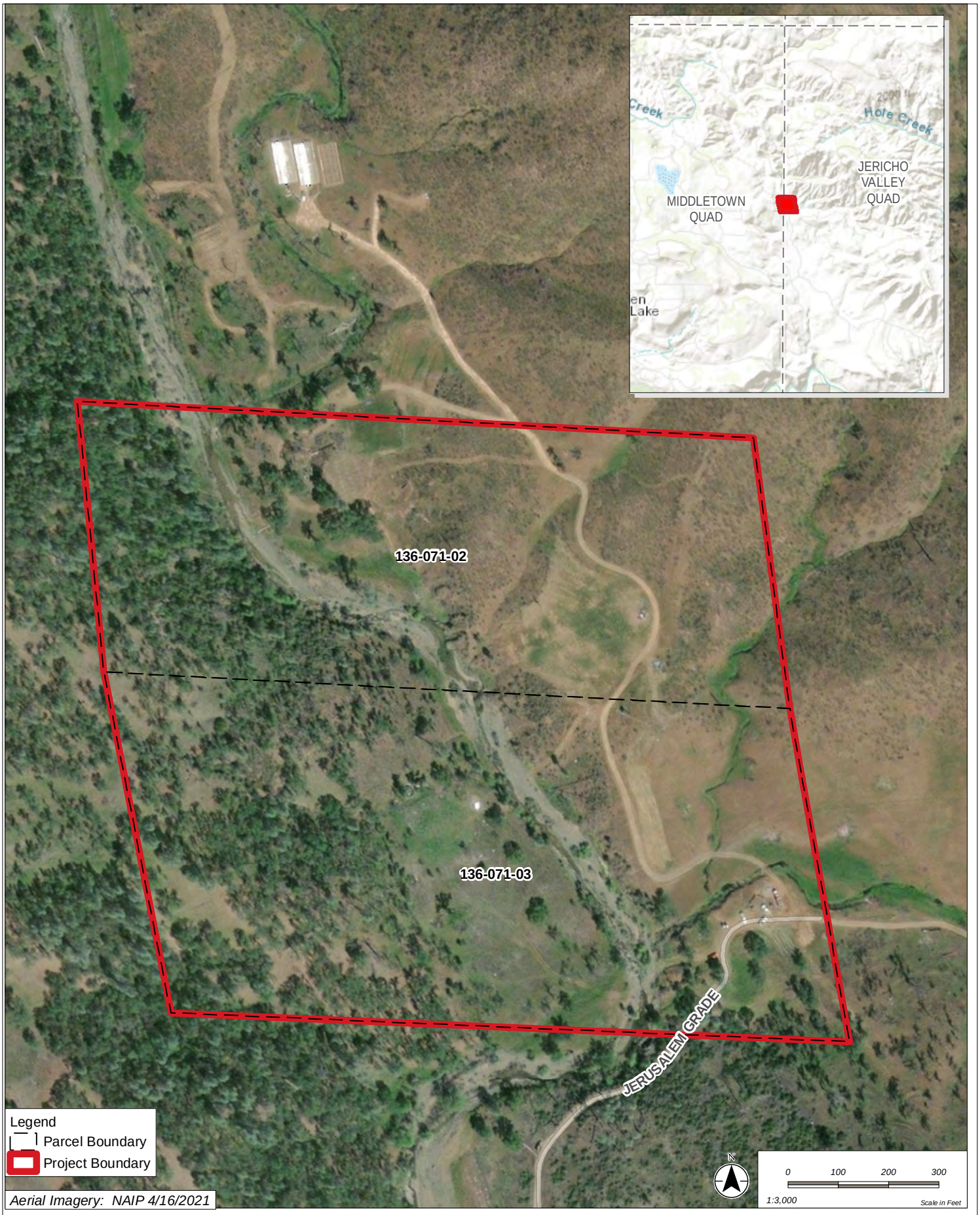
USGS 7.5' Quadrangles: MIDDLETOWN and JERICHO VALLEY

GREG MATUZAK
Environmental Consulting LLC
Nevada City, CA

22430 and 22368 JERUSALEM GRADE

Figure 1. Vicinity Map

Prepared: Melissa Nugent 8/28/2022 D:__GIS_Matuzak\20210826_Lake_JERUSALEM GRADE\mxd\Fig1_Vicinity_LakeCnty_JERUSALEM.mxd



GREG MATUZAK
Environmental Consulting LLC
Nevada City, CA

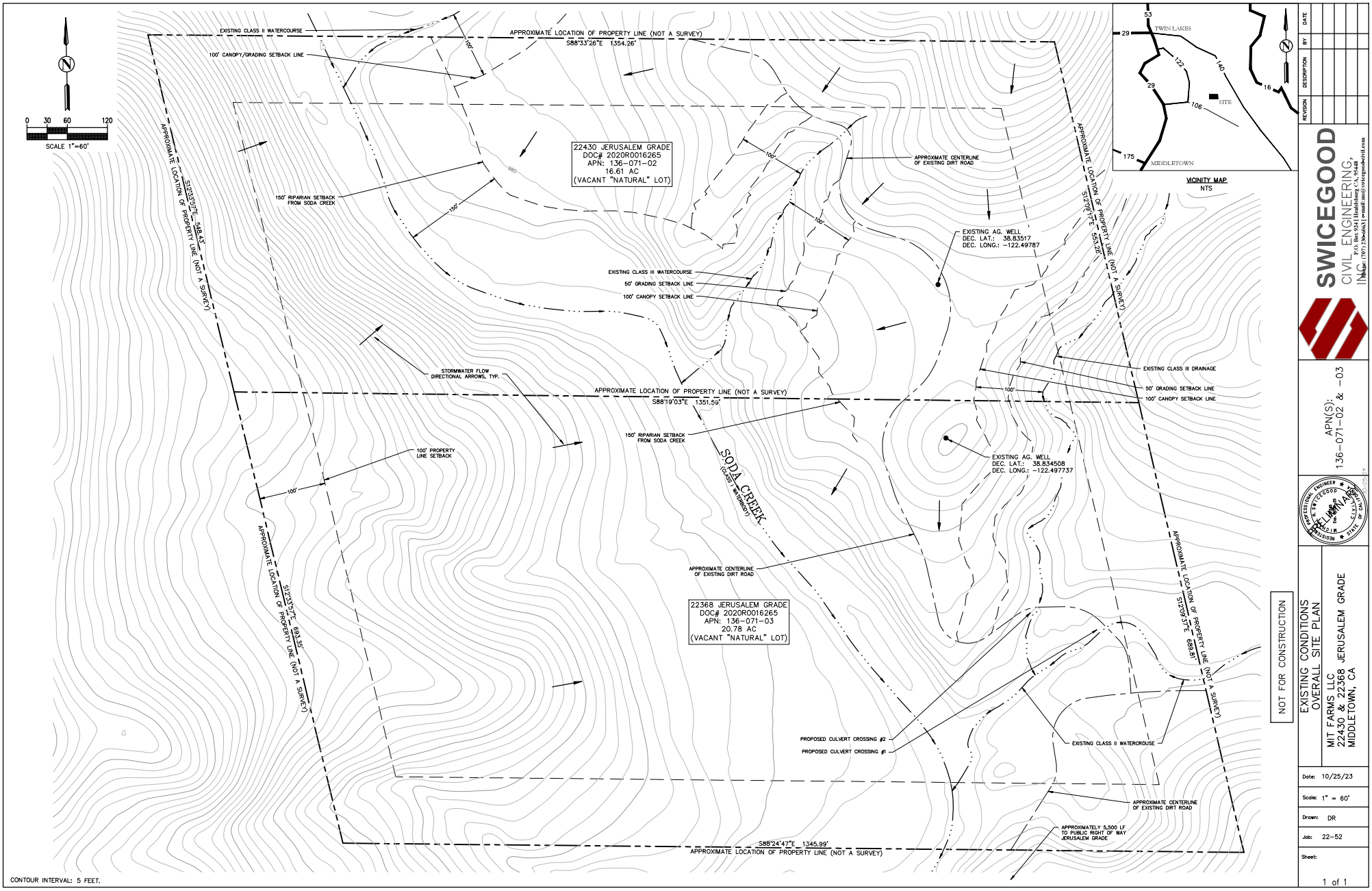
22430 and 22368 JERUSALEM GRADE

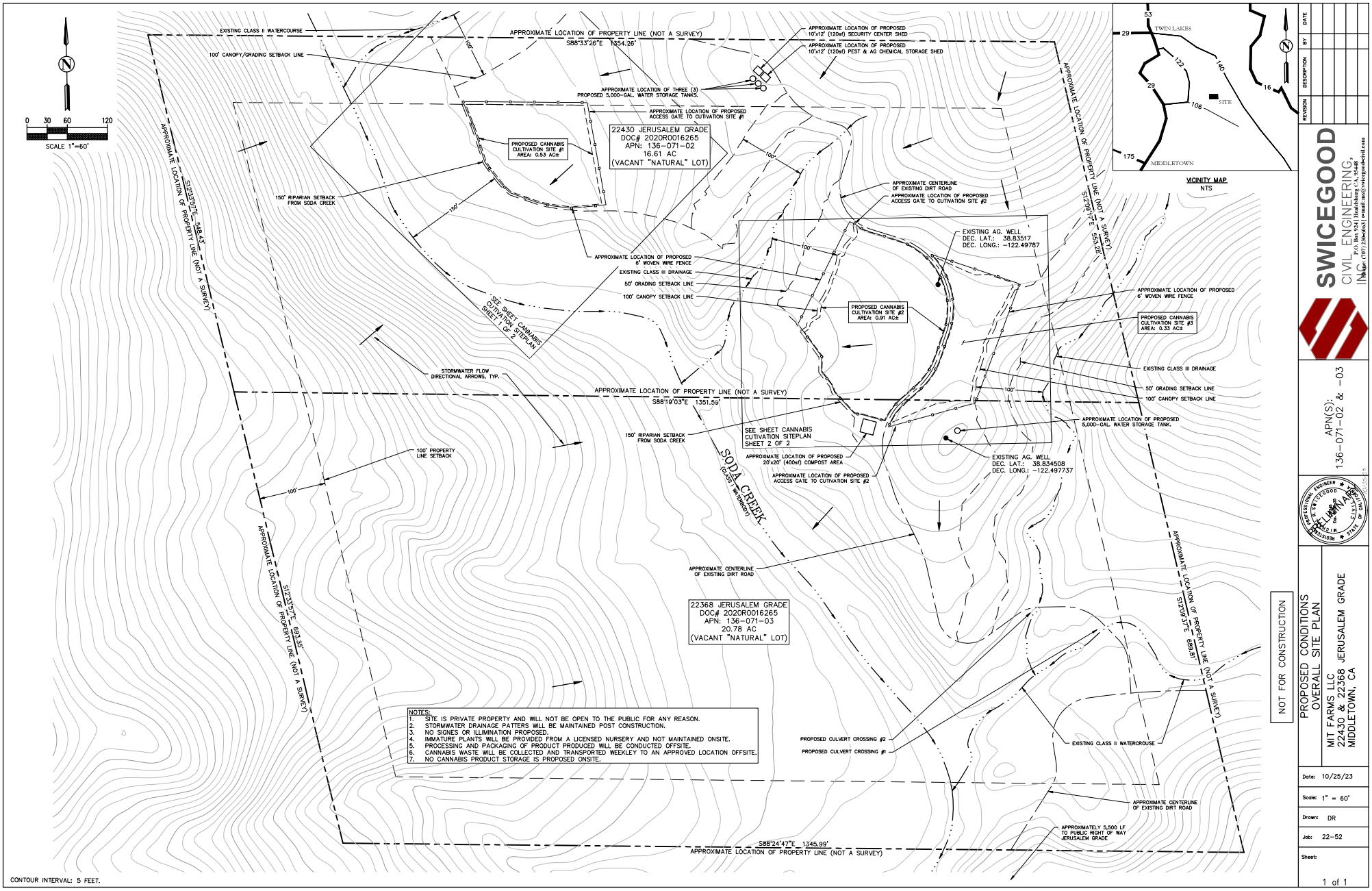
Figure 2. Project Location Map

Prepared: Melissa Nugent 8/28/2022 D:__GIS_Matuzak\20210826_Lake_JERUSALEM GRADE\mxd\Fig2_SiteMap_LakeCnty_JERUSALEM.mxd

Appendix B

Grading and Site Plans


0 30 60 120
SCALE 1"=60'
EXISTING CLASS II WATERCOURSE
100' CANOPY/GRADING SETBACK LINE
APPROXIMATE LOCATION OF PROPERTY LINE (NOT A SURVEY)
S88°33'26"E 1354.26'
22430 JERUSALEM GRADE
DOC# 2020R0016265
APN: 136-071-02
16.61 AC
(VACANT "NATURAL" LOT)
150' RIPARIAN SETBACK FROM SODA CREEK
APPROXIMATE CENTERLINE OF EXISTING DIRT ROAD
APPROXIMATE LOCATION OF PROPERTY LINE (NOT A SURVEY)
S12°39'57"E 548.43'
EXISTING AG. WELL
DEC. LAT.: 38.83517
DEC. LONG.: -122.49787
EXISTING CLASS III WATERCOURSE
50' GRADING SETBACK LINE
100' CANOPY SETBACK LINE
STORMWATER FLOW DIRECTIONAL ARROWS, TYP.
APPROXIMATE LOCATION OF PROPERTY LINE (NOT A SURVEY)
S88°19'03"E 1351.59'
EXISTING CLASS III DRAINAGE
50' GRADING SETBACK LINE
100' CANOPY SETBACK LINE
150' RIPARIAN SETBACK FROM SODA CREEK
100' PROPERTY LINE SETBACK
SODA CREEK
(CLASS I WATERCOURSE)
EXISTING AG. WELL
DEC. LAT.: 38.834508
DEC. LONG.: -122.497737
APPROXIMATE CENTERLINE OF EXISTING DIRT ROAD
APPROXIMATE LOCATION OF PROPERTY LINE (NOT A SURVEY)
S12°39'57"E 693.35'
22368 JERUSALEM GRADE
DOC# 2020R0016265
APN: 136-071-03
20.78 AC
(VACANT "NATURAL" LOT)
APPROXIMATE LOCATION OF PROPERTY LINE (NOT A SURVEY)
S12°39'57"E 689.87'
PROPOSED CULVERT CROSSING #2
PROPOSED CULVERT CROSSING #1
EXISTING CLASS II WATERCOURSE
APPROXIMATE CENTERLINE OF EXISTING DIRT ROAD
APPROXIMATELY 5,500 LF TO PUBLIC RIGHT OF WAY JERUSALEM GRADE
S88°24'47"E 1345.99'
APPROXIMATE LOCATION OF PROPERTY LINE (NOT A SURVEY)
CONTOUR INTERVAL: 5 FEET.
53
29
TWIN LAKES
122
140
29
106
SITE
175
MIDDLETOWN
16
VICINITY MAP
NTS
NOT FOR CONSTRUCTION
REVISION
DESCRIPTION
BY
DATE
SWICEGOOD
CIVIL ENGINEERING, INC.
P.O. Box 924 | Healdsburg CA, 95448
Office: (707) 236-0163 | email: mail@swicegood-civil.com
APN(S):
136-071-02 & -03
EXISTING CONDITIONS
OVERALL SITE PLAN
MIT FARMS LLC
22430 & 22368 JERUSALEM GRADE
MIDDLETOWN, CA
Date: 10/25/23
Scale: 1" = 60'
Drawn: DR
Job: 22-52
Sheet:
1 of 1



NOT FOR CONSTRUCTION

PROPOSED CONDITIONS
OVERALL SITE PLAN

MIT FARMS LLC
22430 & 22368 JERUSALEM GRADE
MIDDLETOWN, CA

APN(S):
136-071-02 & -03

REVISION	DESCRIPTION	BY	DATE

SWICEGOOD
CIVIL ENGINEERING, INC.
P.O. Box 924 | Healdsburg CA, 95448
Office: (707) 236-0163 | email: mail@swicegood-civil.com

Date: 10/25/23
Scale: 1" = 60'
Drawn: DR
Job: 22-52
Sheet: 1 of 1

Appendix C: Plant Species Observed during the Surveys of the Project Area on March 31st and April 28th, 2024, Middletown, California

Common Name	*Scientific Name*	*Species Status*
Plants		
wild oats	*Avena* spp.	*Not FESA, CESA, or CNPS listed*
brome spp.	*Bromus* spp.	*Not FESA, CESA, or CNPS listed*
blue oak	*Quercus douglasii*	*Not FESA, CESA, or CNPS listed*
manzanita	*Arctostaphylos* spp.	*Not FESA, CESA, or CNPS listed*
buttercup spp.	*Ranunculus* spp.	*Not FESA, CESA, or CNPS listed*
California wild rose	*Rosa californica*	*Not FESA, CESA, or CNPS listed*
common mouse ear chickweed	*Cerastium fontanum*	*Not FESA, CESA, or CNPS listed*
common mullein	*Verbascum Thapsus*	*Not FESA, CESA, or CNPS listed*
common mustard	*Brassica rapa*	*Not FESA, CESA, or CNPS listed*
common periwinkle	*Vinca minor*	*Not FESA, CESA, or CNPS listed*
common sheep sorrel	*Rumex acestocella*	*Not FESA, CESA, or CNPS listed*
cyptanth spp.	*Cryptantha spp.*	*Not FESA, CESA, or CNPS listed*
dandelion spp.	*Agoseris* spp.	*Not FESA, CESA, or CNPS listed*
English plantain	*Plantago lanceolate*	*Not FESA, CESA, or CNPS listed*
everlasting pea	*Lathyrus latifolius*	*Not FESA, CESA, or CNPS listed*

Common Name	*Scientific Name*	*Species Status*
honeysuckle spp.	*Lonicera* spp.	*Not FESA, CESA, or CNPS listed*
iris spp.	*Iris* spp.	*Not FESA, CESA, or CNPS listed*
mountain violet	*Viola purpurea*	*Not FESA, CESA, or CNPS listed*
foothill pine	*Pinus sabiniana*	*Not FESA, CESA, or CNPS listed*
ripgut brome	*Bromus diandrus*	*Not FESA, CESA, or CNPS listed*
rush spp.	*Juncus* spp.	*Not FESA, CESA, or CNPS listed*
California blackberry	*Rubus ursinus*	*Not FESA, CESA, or CNPS listed*
St. John’s wort	*Hypericum perforatum*	*Not FESA, CESA, or CNPS listed*
shamrock clover	*Trifolium dubium*	*Not FESA, CESA, or CNPS listed*
snowberry	*Symphoricarpos mollis*	*Not FESA, CESA, or CNPS listed*
stork's bill spp.	*Erodium* spp.	*Not FESA, CESA, or CNPS listed*
yerba santa	*Eriodictyon californicum*	*Not FESA, CESA, or CNPS listed*
chamise	*Adenostoma fasciculatum*	*Not FESA, CESA, or CNPS listed*

Appendix D

Photo Log

Photos of the Special-Status Plant Surveys of the Project Area

Photo 1: Photo looking north along the existing access road entering into the Project area. Small Class II seasonal stream at entrance into the Project area (to be culverted).

Photo 2: Access road within the southern section of the Project area. Small Class III stream flows only intermittently.

Photo 3: Photo of the access road into the Project area with Soda Creek downslope to the left. Grading will remain a minimum of 150 feet from Soda Creek.

Photo 4: Photo of the proposed cannabis cultivation site #2 completely dominated by non-native annual grassland and pasture species with access road to the right.

Photo 5: Photo of the proposed cannabis cultivation site #2 dominated by non-native annual grassland and pasture species.

Photo 6: Looking south along the access road into the Project area. Cannabis cultivation site #2 is located to the right in the photo. Existing water tank in the photo.

Photo 7: Cannabis cultivation site #2 with an existing well head in the photo. Soda Creek is located downslope and grading will remain >150 feet from riparian area of creek.

Photo 8: Northern ephemeral drainage (Class III) that flows across access road and connects with Soda Creek to the left downslope. Cannabis cultivation site #1 is to the left.

Photo 9: Existing water tanks with cannabis cultivation site #1 is downslope to the right. This area is dominated by non-native annual grassland species and shrubs.

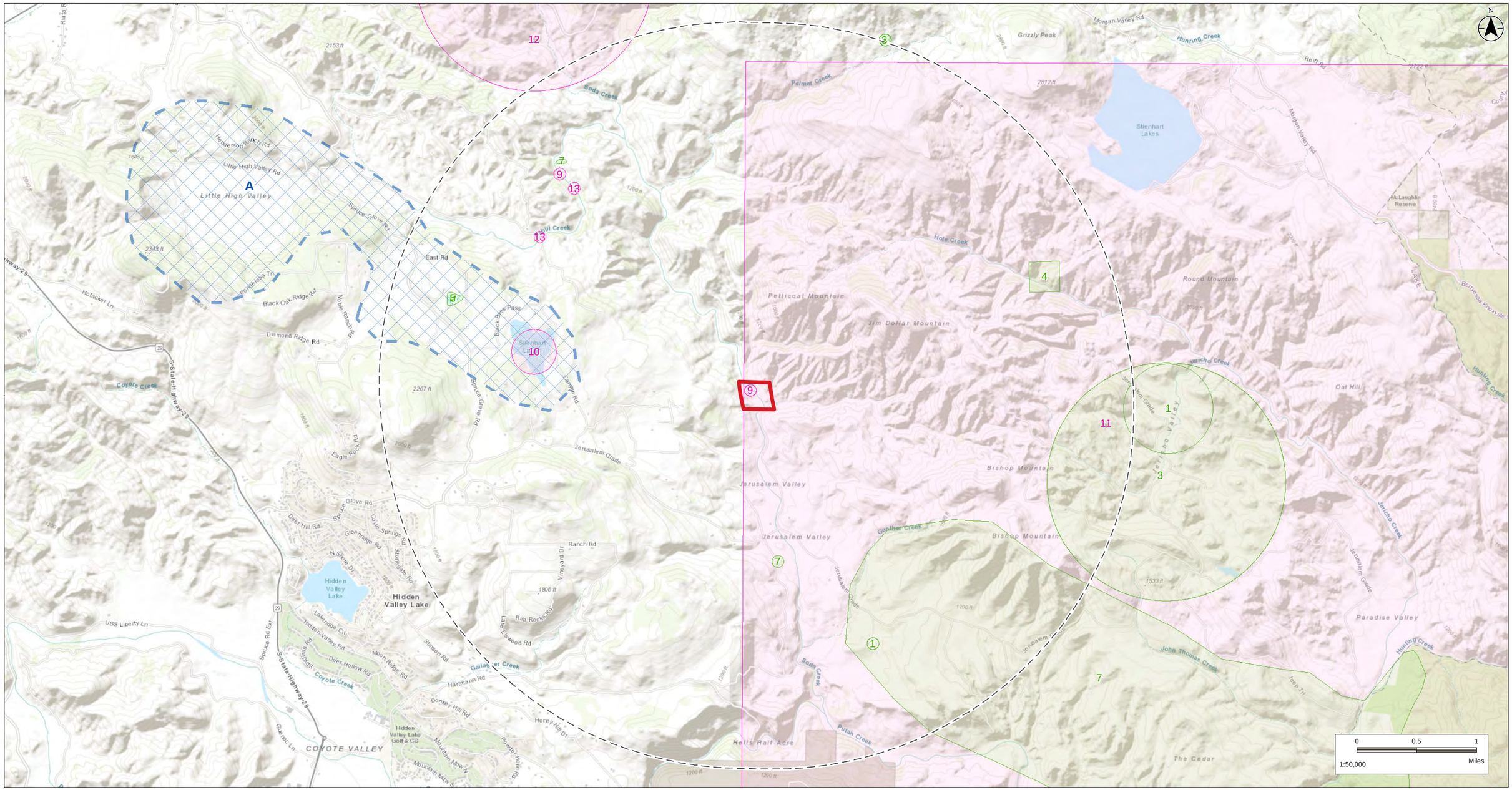
Photo 10: Existing gate along the northern border of the Project area. Cannabis cultivation site #1 is well downslope to the in photo. Existing water tanks in photo.

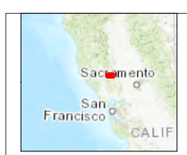
Photo 11: Cannabis cultivation site #1 is downslope in photo. This area is dominated by non-native annual grassland species and shrubs.

Photo 12: Cannabis cultivation site #1 is downslope in photo. This area is dominated by non-native annual grassland species and shrubs. Soda Creek downslope in photo. No special-status plants identified during surveys of the disturbance areas.

Appendix E

CNDDB Species Map and Occurrence Report and USFWS iPac Report





Legend

- Project Location
- 3 mile Buffer on Project
- CNDDB Plant Occurence*
- CNDDB Wildlife Occurence*
- Critical Plant Habitat**
- Critical Wildlife Habitat**

** California Natural Diversity Database (CNDDB) Data: Downloaded August 2022, from the California Department of Fish and Wildlife*
*** United States Fish and Wildlife Service (USFWS) Critical Habitat Data: Downloaded November, 2021 from: https://ecos.fws.gov/ecp/report/table/critical-habitat.html*

CNDDB OCCURRENCES*

Plant Species

1. Adobe-lily
2. Boggs Lake hedge-hyssop
3. Colusa layia
4. Freed's jewelflower
5. Legenere
6. Many-flowered navarretia
7. Sharsmith's western flax
8. Slender Orcutt grass

Wildlife Species

9. Foothill yellow-legged frog
10. Northern Basalt Flow Vernal Pool
11. Prairie falcon
12. Townsend's big-eared bat
13. Western pond turtle

CRITICAL HABITAT OCCURRENCES**

Plant Habitat

A. Slender Orcutt grass

Wildlife Habitat

None

GREG MATUZAK
Environmental Consulting LLC
Nevada City, CA

22430 and 22368 JERUSALEM GRADE

Figure 3. CNDDB and Critical Habitat Map

Prepared: Melissa Nugent 8/28/2022 D:__GIS_Matuzak\20210826_Lake_JERUSALEM GRADE\mxd\Fig3_CNDDB_LakeCnty_JERUSALEM.mxd

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: EOndx IS (112331 OR 119081 OR 119082 OR 13084 OR 13267 OR 13320 OR 14751 OR 26501 OR 45166 OR 45429 OR 45430 OR 47703 OR 47704 OR 47705 OR 5118 OR 93552 OR 93554 OR 93557 OR 93793)

Map Index Number: 47703
EO Index: 47703
Key Quad: Middletown (3812275)
Element Code: AAABH01050
Occurrence Number: 336
Occurrence Last Updated: 2002-04-17

Scientific Name: *Rana boylii*
Common Name: foothill yellow-legged frog

Listing Status: **Federal:** None
State: Endangered
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G3
State: S3
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened
USFS_S-Sensitive

General Habitat:

PARTLY-SHADED, SHALLOW STREAMS AND RIFFLES WITH A ROCKY SUBSTRATE IN A VARIETY OF HABITATS.

Micro Habitat:

NEEDS AT LEAST SOME COBBLE-SIZED SUBSTRATE FOR EGG-LAYING. NEEDS AT LEAST 15 WEEKS TO ATTAIN METAMORPHOSIS.

Last Date Observed: 2001-04-07
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2001-04-07
Occurrence Rank: Good
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:

ASBILL CREEK, 1 MILE UPSTREAM FROM THE CONFLUENCE WITH SODA CREEK, 3.75 MILES NE OF HIDDEN VALLEY LAKE.

Detailed Location:

Ecological:

HABITAT CONSISTS OF RIPARIAN SURROUNDED BY GRAZED ANNUAL GRASSLAND. ABOUT 40% OF SITE IS PROPOSED FOR CONVERSION FROM GRAZING LAND TO VINEYARD.

Threats:

THREATENED BY CONVERSION TO VINEYARDS.

General:

1 ADULT FROG OBSERVED ON 7 APR 2001.

PLSS: T12N, R06W, Sec. 28, NE (M)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-10 N4301471 E540802
Latitude/Longitude: 38.86113 / -122.52972
Elevation (feet): 1,400

County Summary:	Quad Summary:
Lake	Middletown (3812275)

Sources:

KJE01F0006 KJELDSEN, D. & C. KJELDSEN (KJELDSEN BIOLOGICAL CONSULTING) - FIELD SURVEY FORM FOR RANA BOYLII 2001-04-07

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B0464
EO Index: 112331
Key Quad: Jericho Valley (3812274)
Element Code: AAABH01050
Occurrence Number: 2202
Occurrence Last Updated: 2019-03-26

Scientific Name: *Rana boylii*
Common Name: foothill yellow-legged frog

Listing Status: **Federal:** None
State: Endangered
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G3
State: S3
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened
USFS_S-Sensitive

General Habitat:

PARTLY-SHADED, SHALLOW STREAMS AND RIFFLES WITH A ROCKY SUBSTRATE IN A VARIETY OF HABITATS.

Micro Habitat:

NEEDS AT LEAST SOME COBBLE-SIZED SUBSTRATE FOR EGG-LAYING. NEEDS AT LEAST 15 WEEKS TO ATTAIN METAMORPHOSIS.

Last Date Observed: 2018-06-28
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2018-06-28
Occurrence Rank: Fair
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:

SODA CREEK, 0.8 AIR MILE SSW OF PETTICOAT MOUNTAIN, 8 AIR MILES SE OF THE COMMUNITY OF LOWER LAKE.

Detailed Location:

MAPPED TO PROVIDED COORDINATES.

Ecological:

ISOLATED SHALLOW POOL IN DRYING STREAM. WATER TEMPERATURES WARM, FILAMENTOUS ALGAE PREVALENT. SUBSTRATE OF COBBLES & SMALL BOULDERS. PATCHY GROWTH OF RIPARIAN VEGETATION. SURROUNDING LAND USE: CANNABIS CULTIVATION, RURAL RESIDENTIAL.

Threats:

ILLEGAL CANNABIS, ROAD CROSSINGS, SEDIMENT INPUT, TRASH & POLLUTANTS ORIGINATING UPSLOPE, LOW FLOW FROM DIVERSIONS.

General:

OVER 200 INDIVIDUALS OBSERVED, INCLUDING BOTH JUVENILES AND LARVAE, ON 28 JUN 2018.

PLSS: T11N, R06W, Sec. 2, NW (M)
Accuracy: 80 meters
Area (acres): 5
UTM: Zone-10 N4298599 E543392
Latitude/Longitude: 38.83512 / -122.50005
Elevation (feet): 963

County Summary:	Quad Summary:
Lake	Jericho Valley (3812274)

Sources:

LEI18F0001	LEICESTER, M. ET AL. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR RANA BOYLII 2018-06-28
STO18I0002	STOKES, W. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - PHOTO OF RANA BOYLII 2018-06-28

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 33369
Key Quad: Jericho Valley (3812274)
Occurrence Number: 454

EO Index: 13267
Element Code: ABNKD06090
Occurrence Last Updated: 1996-04-11

Scientific Name: *Falco mexicanus*
Common Name: prairie falcon

Listing Status: **Federal:** None
*** SENSITIVE *** **State:** None
CNDDB Element Ranks: **Global:** G5
State: S4

Rare Plant Rank:
Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern

General Habitat:
INHABITS DRY, OPEN TERRAIN, EITHER LEVEL OR HILLY.

Micro Habitat:
BREEDING SITES LOCATED ON CLIFFS. FORAGES FAR AFIELD, EVEN TO MARSHLANDS AND OCEAN SHORES.

Last Date Observed: 1991-04-29
Last Survey Date: 1991-04-29
Owner/Manager:
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Excellent
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:
EYRIE IS A STICK NEST LOCATED ON A WEST EXPOSURE ON A LEDGE ON A ROCK OUTCROP; SURROUNDING HABITAT CONSISTS OF CHAPARRAL AND SCRUB OAK. THIS WAS PART OF THE HOMESTAKE MINE, BUT IS NOW PART OF UCD, MCLAUGHLIN NATURAL RESERVE.

Threats:

General:

PLSS:
UTM:

Accuracy: 80 meters
Latitude/Longitude:

Area (acres): 0
Elevation (feet): 2,000

County Summary:	Quad Summary:
Lake	Jericho Valley (3812274)

Sources:

BAR88F0065	BARCLAY, J. (BIOSYSTEMS ANALYSIS, INC.) - FIELD SURVEY FORM FOR FALCO MEXICANUS (EYRIE SITE) 1988-05-24
BAR89F0002	BARCLAY, J. (BIOSYSTEMS ANALYSIS, INC.) - FIELD SURVEY FORM FOR FALCO MEXICANUS (EYRIE SITE) 1989-04-28
BAR91F0054	BARCLAY, J. (BIOSYSTEMS ANALYSIS, INC.) - FIELD SURVEY FORM FOR FALCO MEXICANUS (EYRIE SITE) 1991-04-29

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92642
Key Quad: Lower Lake (3812285)
Occurrence Number: 458
EO Index: 93793
Element Code: AMACC08010
Occurrence Last Updated: 2014-06-05

Scientific Name: *Corynorhinus townsendii*
Common Name: Townsend's big-eared bat

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G4
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: 1946-10-20
Last Survey Date: 1946-10-20
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
ABOUT 4 MI W OF GRIZZLY PEAK AND ABOUT 4.5 MI SE OF LOWER LAKE.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED TO LOCALITY IN FIELD NOTES OF 4 MI E AND 1.8 MI S OF LOWER LAKE ON A COUNTY ROAD E OF LOWER LAKE.

Ecological:

Threats:

General:
2 SPECIMENS COLLECTED ON 20 OCT 1946 BY S. BENSON AND M. KOFORD (MVZ #106041, 106042) IN AN EMPTY RANCH HOUSE.

PLSS: T12N, R06W, Sec. 16 (M)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-10 N4304184 E540426
Latitude/Longitude: 38.88559 / -122.53389
Elevation (feet): 1,290

County Summary:	Quad Summary:
Lake	Middletown (3812275), Lower Lake (3812285)

Sources:

BEN46S0004 BENSON, S. ET AL. - MVZ #106041, 106042 1946-10-20

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 47704
EO Index: 47704
Key Quad: Middletown (3812275)
Element Code: ARAAD02030
Occurrence Number: 545
Occurrence Last Updated: 2002-04-17

Scientific Name: *Emys marmorata*
Common Name: western pond turtle

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

CNDDB Element Ranks: **Global:** G3G4
State: S3
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_VU-Vulnerable
USFS_S-Sensitive

General Habitat:

A THOROUGHLY AQUATIC TURTLE OF PONDS, MARSHES, RIVERS, STREAMS AND IRRIGATION DITCHES, USUALLY WITH AQUATIC VEGETATION, BELOW 6000 FT ELEVATION.

Micro Habitat:

NEEDS BASKING SITES AND SUITABLE (SANDY BANKS OR GRASSY OPEN FIELDS) UPLAND HABITAT UP TO 0.5 KM FROM WATER FOR EGG-LAYING.

Last Date Observed: 2001-05-07
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2001-05-07
Occurrence Rank: Excellent
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:

ASBILL CREEK, ABOUT 2 MILES UPSTREAM FROM THE CONFLUENCE WITH SODA CREEK, 3.5 MILES NE OF HIDDEN VALLEY LAKE.

Detailed Location:

Ecological:

HABITAT CONSISTS OF RIPARIAN SURROUNDED BY GRAZED ANNUAL GRASSLAND. SITE IS PROPOSED FOR CONVERSION FROM GRAZING LAND TO VINEYARD (~40%).

Threats:

THREATENED BY CONVERSION TO VINEYARDS.

General:

2 ADULT TURTLES OBSERVED ON 7 MAY 2001.

PLSS: T12N, R06W, Sec. 28, SW (M)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-10 N4300623 E540543
Latitude/Longitude: 38.85350 / -122.53275
Elevation (feet): 1,400

County Summary:	Quad Summary:
Lake	Middletown (3812275)

Sources:

KJE01F0007	KJELDSEN, D. & C. KJELDSEN (KJELDSEN BIOLOGICAL CONSULTING) - FIELD SURVEY FORM FOR CLEMMYS MARMORATA MARMORATA 2001-05-07

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 47705
EO Index: 47705
Key Quad: Middletown (3812275)
Element Code: ARAAD02030
Occurrence Number: 546
Occurrence Last Updated: 2002-04-17

Scientific Name: *Emys marmorata*
Common Name: western pond turtle

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3G4
State: S3

Rare Plant Rank:
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_VU-Vulnerable
USFS_S-Sensitive

General Habitat:
A THOROUGHLY AQUATIC TURTLE OF PONDS, MARSHES, RIVERS, STREAMS AND IRRIGATION DITCHES, USUALLY WITH AQUATIC VEGETATION, BELOW 6000 FT ELEVATION.

Micro Habitat:
NEEDS BASKING SITES AND SUITABLE (SANDY BANKS OR GRASSY OPEN FIELDS) UPLAND HABITAT UP TO 0.5 KM FROM WATER FOR EGG-LAYING.

Last Date Observed: 2001-05-07
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2001-05-07
Occurrence Rank: Excellent
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:
ASBILL CREEK, ABOUT 1 MILE UPSTREAM FROM THE CONFLUENCE WITH SODA CREEK, 3.7 MILES NE OF HIDDEN VALLEY LAKE.

Detailed Location:

Ecological:
HABITAT CONSISTS OF RIPARIAN SURROUNDED BY GRAZED ANNUAL GRASSLAND. SITE IS PROPOSED FOR CONVERSION FROM GRAZING LAND TO VINEYARD (~40%).

Threats:
THREATENED BY CONVERSION TO VINEYARDS.

General:
1 ADULT TURTLE OBSERVED ON 7 MAY 2001.

PLSS: T12N, R06W, Sec. 28, SE (M)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-10 N4301281 E540999
Latitude/Longitude: 38.85941 / -122.52746
Elevation (feet): 1,400

County Summary:	Quad Summary:
Lake	Middletown (3812275)

Sources:

KJE01F0007	KJELDSEN, D. & C. KJELDSEN (KJELDSEN BIOLOGICAL CONSULTING) - FIELD SURVEY FORM FOR CLEMMYS MARMORATA MARMORATA 2001-05-07

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 08649
EO Index: 13320
Key Quad: Middletown (3812275)
Element Code: CTT44131CA
Occurrence Number: 11
Occurrence Last Updated: 1998-07-16

Scientific Name: *Northern Basalt Flow Vernal Pool*
Common Name: Northern Basalt Flow Vernal Pool

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists:

CNDDB Element Ranks: **Global:** G3
State: S2.2

General Habitat:

Micro Habitat:

Last Date Observed: 1980-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1980-XX-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

STIENHART LAKE, 6 MILES NORTHEAST OF MIDDLETOWN.

Detailed Location:

Ecological:

LARGE VERNAL LAKE. ENTIRE LAKEBED COVERED WITH VERNAL POOL SPECIES. DOMINATED BY POGOGYNE DOUGLASII, ERYNGIUM ARISTULATUM, AND MIMULUS TRICOLOR. UNABLE TO CONVERT TO FLORISTIC CLASSIFICATION, LACKS SPP. INFO.

Threats:

DREDGING OF ADJ AREA UNDERWAY TO MAINTAIN & DEVELOP FISH PONDS.

General:

SEE HTTPS://WILDLIFE.CA.GOV/DATA/VEGCAMP/NATURAL-COMMUNITIES TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS: T12N, R06W, Sec. 33, SW (M)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-10 N4299085 E540482
Latitude/Longitude: 38.83964 / -122.53355
Elevation (feet): 1,750

County Summary:	Quad Summary:
Lake	Middletown (3812275)

Sources:

BUR80U0004 BURKE, M.T. - ELEMENT PRESERVATION PLAN: ECOLOGICAL ISLANDS PREPARED FOR TNC 1980-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B6049
EO Index: 119081
Key Quad: Jericho Valley (3812274)
Element Code: PDAST5N0F0
Occurrence Number: 65
Occurrence Last Updated: 2020-08-14

Scientific Name: *Layia septentrionalis*
Common Name: Colusa layia

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_UCBG-UC Botanical Garden at Berkeley

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

General Habitat:

CHAPARRAL, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SCATTERED COLONIES IN FIELDS AND GRASSY SLOPES IN SANDY OR SERPENTINE SOIL. 15-1100 M.

Last Date Observed: 2020-04-17
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2020-04-17
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

JERUSALEM ROAD, MIDDLETOWN.

Detailed Location:

EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB IN THE VICINITY OF JERUSALEM ROAD IN JERICHO VALLEY, ALTHOUGH THERE ARE SEVERAL ROADS IN THIS VICINITY WITH VARIATIONS ON THIS NAME.

Ecological:

Threats:

General:

ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 2020 PHOTO BY AKULOVA IN CALPHOTOS. NEEDS FIELDWORK.

PLSS: T11N, R05W, Sec. 8 (M)
Accuracy: 1 mile
Area (acres): 1,987
UTM: Zone-10 N4297436 E548985
Latitude/Longitude: 38.82435 / -122.43569
Elevation (feet):

County Summary:	Quad Summary:
Lake	Jericho Valley (3812274)

Sources:

AKU20I0001 AKULOVA, Z. - PHOTOS OF LAYIA SEPTENTRIONALIS, CALPHOTOS ID: 0000 0000 0520 0316-0320 2020-04-17

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B6050
EO Index: 119082
Key Quad: Wilson Valley (3812284)
Element Code: PDAST5N0F0
Occurrence Number: 66
Occurrence Last Updated: 2020-08-14

Scientific Name: *Layia septentrionalis*
Common Name: Colusa layia

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_UCBG-UC Botanical Garden at Berkeley

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

General Habitat:

CHAPARRAL, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SCATTERED COLONIES IN FIELDS AND GRASSY SLOPES IN SANDY OR SERPENTINE SOIL. 15-1100 M.

Last Date Observed: 2018-05-22
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2018-05-22
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

PALMER CREEK WATERSHED, SOUTH OF MORGAN VALLEY ROAD, BETWEEN LOWER LAKE AND KNOXVILLE.

Detailed Location:

MAPPED ACCORDING TO COORDINATES PROVIDED WITH 2018 HEISE PHOTO, IN THE NORTH 1/2 OF THE NW 1/4 OF SECTION 24.

Ecological:

SHALLOW, ROCKY SOIL UNDER PARTIAL SHADE OF BLUE OAK WOODLAND WITH ARCTOSTAPHYLOS MANZANITA, AVENA FATUA, BROMUS DIANDRUS, ETC.

Threats:

General:

SITE IS BASED ON A 2018 HEISE PHOTO FROM CALPHOTOS.

PLSS: T12N, R06W, Sec. 24, NW (M)
Accuracy: 80 meters
Area (acres): 5
UTM: Zone-10 N4303323 E545149
Latitude/Longitude: 38.8776 / -122.4795
Elevation (feet): 2,254

County Summary:	Quad Summary:
Lake	Wilson Valley (3812284)

Sources:

HEI18I0001 HEISE, K. - PHOTO OF LAYIA SEPTENTRIONALIS, CALPHOTOS ID: 0000 0000 0918 1752 2018-05-22

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 45166
EO Index: 45166
Key Quad: Jericho Valley (3812274)
Element Code: PDBRA2G071
Occurrence Number: 12
Occurrence Last Updated: 2001-04-04

Scientific Name: *Streptanthus brachiatus ssp. hoffmanii*
Common Name: Freed's jewelflower

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

CNDDB Element Ranks: **Global:** G2T2
State: S2

General Habitat:

CHAPARRAL, CISMONTANE WOODLAND.

Micro Habitat:

SERPENTINE ROCK OUTCROPS, PRIMARILY IN GEOTHERMAL DEVELOPMENT AREAS. 485-1040 M.

Last Date Observed: 1998-06-28
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1998-06-28
Occurrence Rank: Unknown
Owner/Manager: BLM
Trend: Unknown
Presence: Presumed Extant

Location:

1 MILE WEST OF ROUND MOUNTAIN, HOLE CREEK CANYON, NORTHWEST OF JERICHO VALLEY.

Detailed Location:

ON UPPER TO MID-SLOPE OF HOLE CREEK CANYON, ON WEST-FACING STEEP SLOPE. MAPPED WITHIN THE SW 1/4 OF THE NE 1/4 SECTION 31 ACCORDING TO T-R-S PROVIDED BY CALLIZO.

Ecological:

SERPENTINE BARRENS WITH SERPENTINE CHAPARRAL. ASSOCIATED WITH STREPTANTHUS BREWERI; HYBRIDS BETWEEN S. BREWERI AND S. BRACHIATUS SSP. HOFFMANII ALSO APPARENT.

Threats:

NONE OBSERVED.

General:

FEWER THAN 100 PLANTS OBSERVED IN 1998. SPECIMENS SENT TO KRUCKEBERG FOR CONFIRMATION.

PLSS: T12N, R05W, Sec. 31, NE (M)
Accuracy: non-specific area
Area (acres): 41
UTM: Zone-10 N4300166 E547319
Latitude/Longitude: 38.84904 / -122.45469
Elevation (feet): 1,600

County Summary:

Lake

Quad Summary:

Jericho Valley (3812274)

Sources:

CAL98F0001 CALLIZO, J. - FIELD SURVEY FORM FOR STREPTANTHUS BRACHIATUS SSP. HOFFMANII 1998-06-28

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 08603
EO Index: 5118
Key Quad: Middletown (3812275)
Element Code: PDCAM0C010
Occurrence Number: 34
Occurrence Last Updated: 1994-08-24

Scientific Name: *Legenere limosa*
Common Name: legenere

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_UCBG-UC Botanical Garden at Berkeley

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

General Habitat:
VERNAL POOLS.

Micro Habitat:
IN BEDS OF VERNAL POOLS. 1-1005 M.

Last Date Observed: 1989-04-29
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1989-04-29
Occurrence Rank: Excellent
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:
NORTHWESTERN-MOST OF THE STEINHART LAKES, NORTH OF COYOTE VALLEY.

Detailed Location:
MAPPED WITHN THE SW 1/4 OF THE NE 1/4 OF SECTION 32.

Ecological:
LARGE VERNAL LAKE WITH LIMNANTHES DOUGLASII, LASTHENIA GLABERRIMA, AND ALLOCARYA STIPITATA MICRANTHA. OTHER RARE PLANTS INCLUDE GRATIOLA HETEROSEPALA, ORCUTTIA TENUIS, AND NAVARRETIA LEUCOCEPHALA SSP. PLIEANTHA.

Threats:

General:
UNKNOWN NUMBER OF PLANTS OBSERVED IN 1989. NO OBVIOUS THREATS BUT RANCHETTES ARE BEING DEVELOPED IN SURROUNDING AREA.

PLSS: T12N, R06W, Sec. 32, NE (M)
Accuracy: specific area
Area (acres): 7
UTM: Zone-10 N4299786 E539413
Latitude/Longitude: 38.84601 / -122.54582
Elevation (feet): 1,800

County Summary:	Quad Summary:
Lake	Middletown (3812275)

Sources:

BIT89F0012 BITTMAN, R. & N. MCCARTEN - FIELD SURVEY FORM FOR GRATIOLA HETEROSEPALA 1989-04-29

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92448
EO Index: 93552
Key Quad: Jericho Valley (3812274)
Element Code: PDLIN010E0
Occurrence Number: 1
Occurrence Last Updated: 2014-05-23

Scientific Name: *Hesperolinon sharsmithiae*
Common Name: Sharsmith's western flax

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_UCSC-UC Santa Cruz

CNDDB Element Ranks: **Global:** G2Q
State: S2

General Habitat:
CHAPARRAL.

Micro Habitat:
SERPENTINE SUBSTRATES. 180-670 M.

Last Date Observed: 2010-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2010-XX-XX
Occurrence Rank: Excellent
Owner/Manager: BLM, PVT
Trend: Unknown
Presence: Presumed Extant

Location:
VICINITY OF THE CEDARS, NORTH OF LAKE BERRYESSA.

Detailed Location:
MAPPED BY CNDDB TO INCLUDE VERY GENERAL MAP INFORMATION FROM O'DONNELL IN 2006 & 2010.

Ecological:
SERPENTINE CHAPARRAL WITH CUPRESSUS SARGENTII, ARCTOSTAPHYLOS VISCIDA, QUERCUS DURATA, STREPTANTHUS BREWERI HESPERIDIS, S. GLANDULOSUS, NAVARRETIA JEPSONII, VUPIA MICROSTACHYS, CRYPTANTHA HISPIDULA, ALLIUM FIMBRIATUM, ETC.

Threats:

General:
TYPE LOCALITY. DESCRIBED AS "ABUNDANT" BY O'DONNELL IN 2005. IN 2010, THE POPULATION WAS DENSE AND ROBUST. NEED BETTER MAP DETAIL FOR THIS SITE.

PLSS: T11N, R05W, Sec. 20 (M)
Accuracy: non-specific area
Area (acres): 5,252
UTM: Zone-10 N4294278 E548382
Latitude/Longitude: 38.79593 / -122.44285
Elevation (feet): 1,200

County Summary:
Lake, Napa

Quad Summary:
Jericho Valley (3812274)

Sources:

ODO05S0001	O'DONNELL, R. - O'DONNELL SN JEPS #111339, UC #1862410 2005-06-09
ODO06A0001	O'DONNELL, R. - A NEW SPECIES OF HESPEROLINON (LINACEAE) FROM HUNTING CREEK IN NAPA COUNTY, CALIFORNIA, MADRONO 53(4): 404-408. 2006-XX-XX
ODO10A0001	O'DONNELL, R. - THE GENUS HESPEROLINON (LINACEAE): AN INTRODUCTION, FOUR SEASONS 13(4): 1-55. 2010-12-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	28790	**EO Index:**	93554
Key Quad:	Jericho Valley (3812274)	**Element Code:**	PDLIN010E0
Occurrence Number:	2	**Occurrence Last Updated:**	2014-05-20

Scientific Name: *Hesperolinon sharsmithiae*

Common Name: Sharsmith's western flax

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.2

Other Lists: BLM_S-Sensitive
SB_UCSC-UC Santa Cruz

CNDDB Element Ranks: **Global:** G2Q

State: S2

General Habitat:

CHAPARRAL.

Micro Habitat:

SERPENTINE SUBSTRATES. 180-670 M.

Last Date Observed:	1994-06-10	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1994-06-10	**Occurrence Rank:**	Excellent
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

JERUSALEM VALLEY, WEST OF SODA CREEK AND SOUTH OF JERUSALEM ROAD.

Detailed Location:

WESTERN EDGE OF CREEK ABOUT 0.25 MILE SE OF ROAD, EAST AND WEST OF DIRT ROAD. SUGGEST THAT ROAD MODIFICATIONS BE PLANNED TO SKIRT HABITAT AND FOOT TRAFFIC BE CONTROLLED BY FOOTPATH CONSTRUCTION/LOW ROCK WALL & APPROPRIATE SIGNAGE.

Ecological:

RELATIVELY BARE SOILS (HENNEKE-MONTARA ROCK OUTCROP COMPLEX). ASSOCIATED WITH LOMATIUM DISSECTUM, NAVARRETIA INTERTEXTA, HOLOZONIA, AND VULPIA MEGALURA.

Threats:

AREA BEING CONSIDERED FOR MEETING AND CAMPING AREA TO ACCOMODATE UP TO 1200 PEOPLE.

General:

200 PLANTS OBSERVED IN 1994. PLANTS AT THIS SITE FORMERLY IDENTIFIED AS H. SERPENTINUM; MOVED TO H. SHARSMITHIAE BASED ON ID OF NEARBY OCCURRENCES. ID NEEDS CONFIRMATION.

PLSS:	T11N, R06W, Sec. 11, SW (M)	**Accuracy:**	80 meters	**Area (acres):**	0
UTM:	Zone-10 N4296302 E543786	**Latitude/Longitude:**	38.81441 / -122.49565	**Elevation (feet):**	980

County Summary:	**Quad Summary:**
Lake	Jericho Valley (3812274)

Sources:

BAA94F0001 BAAD, M. - FIELD SURVEY FORM FOR HESPEROLINON SP. NOV. "SERPENTINUM" 1994-06-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 66783
EO Index: 93557
Key Quad: Middletown (3812275)
Element Code: PDLIN010E0
Occurrence Number: 3
Occurrence Last Updated: 2014-05-20

Scientific Name: *Hesperolinon sharsmithiae*
Common Name: Sharsmith's western flax

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_UCSC-UC Santa Cruz

CNDDB Element Ranks: **Global:** G2Q
State: S2

General Habitat:
CHAPARRAL.

Micro Habitat:
SERPENTINE SUBSTRATES. 180-670 M.

Last Date Observed: 2001-05-07
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2001-05-07
Occurrence Rank: Fair
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:
EAST SIDE OF ASBILL CREEK, NEAR CONFLUENCE WITH SODA CREEK, 7 MILES SE OF CLEAR LAKE.

Detailed Location:
ON SERPENTINE RIDGE THAT EXTENDS THROUGH THE PROPERTY. MAPPED IN SW1/4 OF NE1/4 OF SEC 28.

Ecological:
SERPENTINE ROCKY RIDGE.

Threats:

General:
GREATER THAN 30 PLANTS OBSERVED IN 2001. PLANTS AT THIS SITE FORMERLY IDENTIFIED AS H. SERPENTINUM; MOVED TO H. SHARSMITHIAE BASED ON ID OF NEARBY OCCURRENCES AT THE CEDARS. ID NEEDS CONFIRMATION.

PLSS: T12N, R06W, Sec. 28, NE (M)
Accuracy: specific area
Area (acres): 2
UTM: Zone-10 N4301639 E540816
Latitude/Longitude: 38.86264 / -122.52953
Elevation (feet): 1,400

County Summary:
Lake

Quad Summary:
Middletown (3812275)

Sources:
KJE01F0013 KJELDSEN, C. & D. KJELDSEN - FIELD SURVEY FORM FOR HESPEROLINON SP. NOV. "SERPENTINUM" 2001-05-07

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 08603
EO Index: 14751
Key Quad: Middletown (3812275)
Element Code: PDPLM0C0E5
Occurrence Number: 11
Occurrence Last Updated: 1996-01-26

Scientific Name: *Navarretia leucocephala ssp. plieantha*
Common Name: many-flowered navarretia

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank: 1B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G4T1
State: S1

General Habitat:
VERNAL POOLS.

Micro Habitat:
VOLCANIC ASH FLOW VERNAL POOLS. 30-915 M.

Last Date Observed: 1989-04-29
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1989-04-29
Occurrence Rank: Excellent
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:
NORTHERNMOST LAKE OF STEINHART LAKES, EAST OF SPRUCE GROVE ROAD, 7 AIR MILES NORTHEAST OF MIDDLETOWN.

Detailed Location:

Ecological:
IN VOLCANIC ASH VERNAL POOL ON BASALT. ASSOCIATED WITH ORCUTTIA TENUIS, GRATIOLA HETEROSEPALA, LEGENERE LIMOSA, ERYNGIUM ARISTULATUM, LIMNANTHES DOUGLASII, LASTHENIA GLABERRIMA, PLAGIOBOTHRYS STIPITATUS, AND ELEOCHARIS PALUSTRIS.

Threats:
UNDISTURBED SAVE FOR SMALL CATTLE POND AT ONE END OF OCCURRENCE.

General:
MORE THAN 1000 PLANTS SEEN IN 1987. UNKNOWN NUMBER OF PLANTS OBSERVED IN 1989.

PLSS: T12N, R06W, Sec. 32, NE (M)
Accuracy: specific area
Area (acres): 7
UTM: Zone-10 N4299786 E539413
Latitude/Longitude: 38.84601 / -122.54582
Elevation (feet): 1,800

County Summary:
Lake

Quad Summary:
Middletown (3812275)

Sources:

BIT89F0012	BITTMAN, R. & N. MCCARTEN - FIELD SURVEY FORM FOR GRATIOLA HETEROSEPALA 1989-04-29
MCC87F0003	MCCARTEN, N. ET AL. - FIELD SURVEY FORM FOR NAVARRETIA LEUCOCEPHALA SSP. PLIEANTHA & ORCUTTIA TENUIS 1987-06-29
MCC87F0006	MCCARTEN, N. & R. BITTMAN - FIELD SURVEY FORM FOR NAVARRETIA LEUCOCEPHALA SSP. PLIEANTHA 1987-06-29

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 08603
EO Index: 13084
Key Quad: Middletown (3812275)
Element Code: PDSCR0R060
Occurrence Number: 42
Occurrence Last Updated: 1996-01-26

Scientific Name: *Gratiola heterosepala*
Common Name: Boggs Lake hedge-hyssop

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

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

General Habitat:
MARSHES AND SWAMPS (FRESHWATER), VERNAL POOLS.

Micro Habitat:
CLAY SOILS; USUALLY IN VERNAL POOLS, SOMETIMES ON LAKE MARGINS. 4-2410 M.

Last Date Observed: 1989-04-29
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1989-04-29
Occurrence Rank: Excellent
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:
NORTHWESTERN-MOST LAKE OF STEINHART LAKES, NORTH OF COYOTE VALLEY.

Detailed Location:

Ecological:
LARGE VERNAL LAKE WITH LIMNANTHES DOUGLASII, LASTHENIA GLABERRIMA, ALLOCARYA STIPITATA MICRANTHA. OTHER RARE PLANTS HERE: NAVARRETIA PLIEANTHA AND ORCUTTIA TENUIS.

Threats:
SURROUNDING AREA IS IN RANCHETTES, NO VISIBLE DISTURBANCES AT THIS SITE IN 1989, EXCEPT POSSIBLY GRAZING.

General:

PLSS: T12N, R06W, Sec. 32, NE (M)
Accuracy: specific area
Area (acres): 7
UTM: Zone-10 N4299786 E539413
Latitude/Longitude: 38.84601 / -122.54582
Elevation (feet): 1,840

County Summary:	Quad Summary:
Lake	Middletown (3812275)

Sources:

BIT89F0012 BITTMAN, R. & N. MCCARTEN - FIELD SURVEY FORM FOR GRATIOLA HETEROSEPALA 1989-04-29

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 45429
EO Index: 45429
Key Quad: Jericho Valley (3812274)
Element Code: PMLIL0V0F0
Occurrence Number: 96
Occurrence Last Updated: 2001-08-09

Scientific Name: *Fritillaria pluriflora*
Common Name: adobe-lily

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2G3
State: S2S3

Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:
CHAPARRAL, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
USUALLY ON CLAY SOILS; SOMETIMES SERPENTINE. 45-945 M.

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:
JERICHO VALLEY, LAKE COUNTY.

Detailed Location:

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS LIST OF LOCATIONS FROM CALLIZO; NEEDS FIELDWORK.

PLSS: T11N, R05W, Sec. 05, E (M)
Accuracy: 2/5 mile
Area (acres): 0
UTM: Zone-10 N4298415 E549001
Latitude/Longitude: 38.83317 / -122.43544
Elevation (feet):

County Summary:
Lake

Quad Summary:
Jericho Valley (3812274)

Sources:
CAL98U0001 CALLIZO, J. - SUMMARY OF POPULATIONS OF FRITILLARIA PLURIFLORA 1998-02-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 45430
EO Index: 45430
Key Quad: Jericho Valley (3812274)
Element Code: PMLIL0V0F0
Occurrence Number: 97
Occurrence Last Updated: 2018-05-08

Scientific Name: *Fritillaria pluriflora*
Common Name: adobe-lily

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2G3
State: S2S3

Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:
CHAPARRAL, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
USUALLY ON CLAY SOILS; SOMETIMES SERPENTINE. 45-945 M.

Last Date Observed: 2015-02-22
Last Survey Date: 2015-02-22
Owner/Manager: PVT
Presence: Presumed Extant

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

Location:
JERUSALEM VALLEY, EAST OF SODA CREEK, 1.5 AIR MILES SW OF PEAK OF BISHOP MOUNTAIN.

Detailed Location:
MAPPED BY CNDDB IN THE WEST HALF OF SECTION 13 BASED ON 2015 TOREN COORDINATES.

Ecological:
BLUE OAK WOODLAND, SUNNY CLAY SOIL.

Threats:

General:
SITE BASED ON A 2015 TOREN COLLECTION. UNDATED OBSERVATION FROM "JERUSALEM VALLEY" ATTRIBUTED HERE.

PLSS: T11N, R06W, Sec. 13, W (M)
Accuracy: 80 meters
Area (acres): 5
UTM: Zone-10 N4295219 E545073
Latitude/Longitude: 38.80458 / -122.4809
Elevation (feet): 1,025

County Summary:	Quad Summary:
Lake	Jericho Valley (3812274)

Sources:

CAL98U0001 CALLIZO, J. - SUMMARY OF POPULATIONS OF FRITILLARIA PLURIFLORA 1998-02-XX

TOR15S0001 TOREN, D. & E. DEARING - TOREN #10272 CAS #1197834, CAS-BOT-BC #433234 2015-02-22

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	08603	**EO Index:**	26501
Key Quad:	Middletown (3812275)	**Element Code:**	PMPOA4G050
Occurrence Number:	36	**Occurrence Last Updated:**	1996-01-26

Scientific Name: *Orcuttia tenuis*

Common Name: slender Orcutt grass

Listing Status: **Federal:** Threatened

State: Endangered

Rare Plant Rank: 1B.1

Other Lists: SB_UCBG-UC Botanical Garden at Berkeley

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

VERNAL POOLS.

Micro Habitat:

OFTEN IN GRAVELLY SUBSTRATE. 25-1755 M.

Last Date Observed:	1987-06-29	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1987-06-29	**Occurrence Rank:**	Good
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

NORTHWESTERN-MOST LAKE OF STIENHART LAKES, NORTH OF COYOTE VALLEY.

Detailed Location:

Ecological:

ARTIFICIAL POND IN VOLCANIC ASH VERNAL POOL. NAVARRETIA PLIEANTHA IN POOL ALSO. GRATIOLA HETEROSEPALA IN POOLS NEARBY.

Threats:

NO VISIBLE DISTURBANCES, THOUGH GRAZING MAY OCCUR.

General:

A FEW HUNDRED PLANTS SEEN IN 1987.

PLSS:	T12N, R06W, Sec. 32, NE (M)	**Accuracy:**	specific area	**Area (acres):**	7
UTM:	Zone-10 N4299786 E539413	**Latitude/Longitude:**	38.84601 / -122.54582	**Elevation (feet):**	1,840

County Summary:	**Quad Summary:**
Lake	Middletown (3812275)

Sources:

BIO88R0001	BIOSYSTEMS ANALYSIS, INC. - STATUS SURVEY OF THE GRASS TRIBE ORCUTTIEAE AND CHAMAESYCE HOOVERI IN THE CENTRAL VALLEY OF CALIFORNIA 1988-09-XX
MCC87F0003	MCCARTEN, N. ET AL. - FIELD SURVEY FORM FOR NAVARRETIA LEUCOCEPHALA SSP. PLIEANTHA & ORCUTTIA TENUIS 1987-06-29

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially 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.

Location

Lake 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.

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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. IPaC only shows species that are regulated by USFWS (see FAQ).
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:

Birds

NAME	STATUS
Northern Spotted Owl Strix occidentalis caurina Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/1123	Threatened

Fishes

NAME	STATUS
Delta Smelt Hypomesus transpacificus Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/321	Threatened

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Crustaceans

NAME	STATUS
Conservancy Fairy Shrimp Branchinecta conservatio Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/8246	Endangered

Flowering Plants

NAME	STATUS
Burke's Goldfields Lasthenia burkei Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4338	Endangered
Keck's Checker-mallow Sidalcea keckii Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/5704	Endangered

Lake County Stonecrop Parvisedum leiocarpum — Endangered
Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/2263

Many-flowered Navarretia Navarretia leucocephala ssp. plieantha — Endangered
Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/2491

Slender Orcutt Grass Orcuttia tenuis — Threatened
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/1063

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.

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 https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.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.

NAME	BREEDING SEASON
California Thrasher Toxostoma redivivum This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jan 1 to Jul 31
Nuttall's Woodpecker Picoides nuttallii 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/9410	Breeds Apr 1 to Jul 20
Oak Titmouse Baeolophus inornatus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9656	Breeds Mar 15 to Jul 15
Wrentit Chamaea fasciata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 10

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.
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.

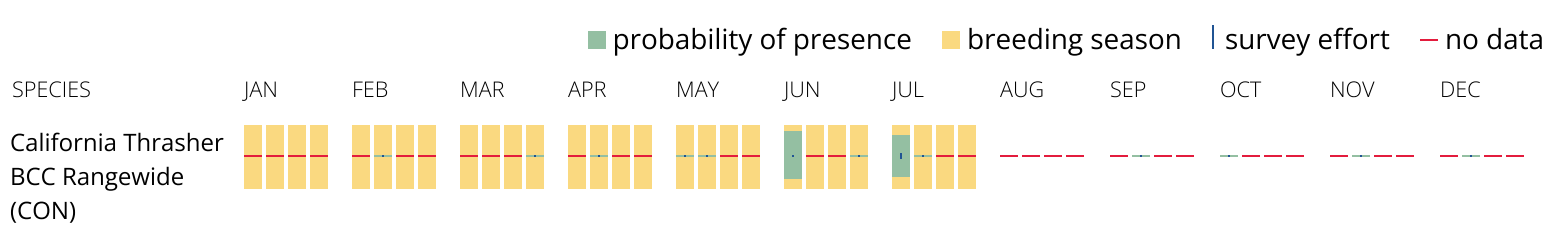
Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

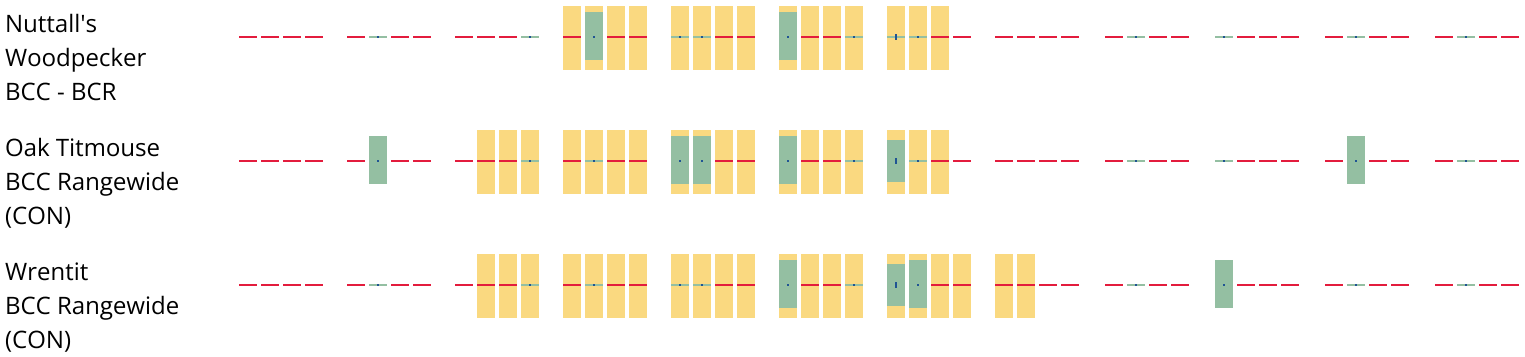
Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

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.





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 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 list of migratory birds that potentially occur 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 Rapid Avian Information Locator (RAIL) 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 or migrating in my area?

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 query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. 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 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.

Coastal Barrier Resources System

Projects within the John H. Chafee Coastal Barrier Resources System (CBRS) may be subject to the restrictions on federal expenditures and financial assistance and the consultation requirements of the Coastal Barrier Resources Act (CBRA) (16 U.S.C. 3501 et seq.). For more information, please contact the local Ecological Services Field Office or visit the CBRA Consultations website. The CBRA website provides tools such as a flow chart to help determine whether consultation is required and a template to facilitate the consultation process.

There are no known coastal barriers at this location.

Data limitations

The CBRS boundaries used in IPaC are representations of the controlling boundaries, which are depicted on the official CBRS maps. The boundaries depicted in this layer are not to be considered authoritative for in/out determinations close to a CBRS boundary (i.e., within the "CBRS Buffer Zone" that appears as a hatched area on either side of the boundary). For projects that are very close to a CBRS boundary but do not clearly intersect a unit, you may contact the Service for an official determination by following the instructions here: https://www.fws.gov/service/coastal-barrier-resources-system-property-documentation

Data exclusions

CBRS units extend seaward out to either the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward extent of the units is not shown in the CBRS data, therefore projects in the offshore areas of units (e.g., dredging, breakwaters, offshore wind energy or oil and gas projects) may be subject to CBRA even if they do not intersect the CBRS data. For additional information, please contact CBRA@fws.gov.

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.

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

Riverine

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

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

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.

Element_Type	Scientific_Name	Common_Name	Element_Code	Federal_Status	State_Status	CDFW_Status	CA_Rare_Plant_Rank	Quad_Code	Quad_Name	Data_Status	Taxonomic_So
Animals - Amphibians	Rana boylii pop. 1	foothill yellow-legged frog - north coast DPS	AAABH01051	None	None	SSC	-	3812274	JERICHO VALLEY	Mapped	Animals - Amphibians - Ranidae - Rana boylii pop. 1
Animals - Birds	Aquila chrysaetos	golden eagle	ABNKC22010	None	None	FP | WL	-	3812274	JERICHO VALLEY	Mapped	Animals - Birds - Accipitridae - Aquila chrysaetos
Animals - Birds	Haliaeetus leucocephalus	bald eagle	ABNKC10010	Delisted	Endangered	FP	-	3812274	JERICHO VALLEY	Mapped and Unprocessed	Animals - Birds - Accipitridae - Haliaeetus leucocephalus
Animals - Birds	Falco mexicanus	prairie falcon	ABNKD06090	None	None	WL	-	3812274	JERICHO VALLEY	Mapped	Animals - Birds - Falconidae - Falco mexicanus
Animals - Insects	Bombus crotchii	Crotch bumble bee	IIHYM24480	None	Candidate Endangered	-	-	3812274	JERICHO VALLEY	Unprocessed	Animals - Insect - Apidae - Bombus crotchii
Animals - Mammals	Antrozous pallidus	pallid bat	AMACC10010	None	None	SSC	-	3812274	JERICHO VALLEY	Unprocessed	Animals - Mammals - Vespertilionidae Antrozous pallidus
Animals - Mammals	Corynorhinus townsendii	Townsends big-eared bat	AMACC08010	None	None	SSC	-	3812274	JERICHO VALLEY	Mapped	Animals - Mammals - Vespertilionidae Corynorhinus townsendii
Animals - Mammals	Myotis yumanensis	Yuma myotis	AMACC01020	None	None	-	-	3812274	JERICHO VALLEY	Unprocessed	Animals - Mammals - Vespertilionidae Myotis yumanensis
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	Proposed Threatened	None	SSC	-	3812274	JERICHO VALLEY	Mapped and Unprocessed	Animals - Reptiles - Emydidae - Emys marmorat
Community - Terrestrial	Northern Interior Cypress Forest	Northern Interior Cypress Forest	CTT83220CA	None	None	-	-	3812274	JERICHO VALLEY	Mapped	Community - Terrestrial - Northern Interior Cypress Forest
Community - Terrestrial	Serpentine Bunchgrass	Serpentine Bunchgrass	CTT42130CA	None	None	-	-	3812274	JERICHO VALLEY	Mapped	Community - Terrestrial - Serpentine Bunchgrass
Plants - Bryophytes	Grimmia torenii	Torens grimmia	NBMUS32330	None	None	-	1B.3	3812274	JERICHO VALLEY	Mapped	Plants - Bryophytes - Grimmiaceae - Grimmia torenii
Plants - Vascular	Allium fimbriatum var. purdyi	Purdys onion	PMLIL020Y7	None	None	-	4.3	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Alliaceae - Allium fimbriatur var. purdyi
Plants - Vascular	Lomatium hooveri	Hoovers lomatium	PDAPI1B2K0	None	None	-	4.3	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Apiaceae -

											Lomatium hooveri
Plants - Vascular	Asclepias solanoana	serpentine milkweed	PDASC021R0	None	None	-	4.2	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Apocynaceae - Asclepias solanoana
Plants - Vascular	Balsamorhiza macrolepis	big-scale balsamroot	PDAST11061	None	None	-	1B.2	3812274	JERICHO VALLEY	Mapped	Plants - Vascula - Asteraceae - Balsamorhiza macrolepis
Plants - Vascular	Harmonia hallii	Halls harmonia	PDAST650A0	None	None	-	1B.2	3812274	JERICHO VALLEY	Mapped	Plants - Vascula - Asteraceae - Harmonia hallii
Plants - Vascular	Layia septentrionalis	Colusa layia	PDAST5N0F0	None	None	-	1B.2	3812274	JERICHO VALLEY	Mapped	Plants - Vascula - Asteraceae - Layia septentrionalis
Plants - Vascular	Senecio clevelandii var. clevelandii	Clevelands ragwort	PDAST8H0R1	None	None	-	4.3	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Asteraceae - Senecio clevelandii var. clevelandii
Plants - Vascular	Amsinckia lunaris	bent-flowered fiddleneck	PDBOR01070	None	None	-	1B.2	3812274	JERICHO VALLEY	Mapped	Plants - Vascula - Boraginaceae - Amsinckia lunaris
Plants - Vascular	Arabis modesta	modest rockcress	PDBRA06180	None	None	-	4.3	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Brassicaceae - Arabis modesta
Plants - Vascular	Arabis oregana	Oregon rockcress	PDBRA061A0	None	None	-	4.3	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Brassicaceae - Arabis oregana
Plants - Vascular	Streptanthus brachiatus ssp. hoffmanii	Freeds jewelflower	PDBRA2G071	None	None	-	1B.2	3812274	JERICHO VALLEY	Mapped	Plants - Vascula - Brassicaceae - Streptanthus brachiatus ssp. hoffmanii
Plants - Vascular	Streptanthus hesperidis	green jewelflower	PDBRA2G510	None	None	-	1B.2	3812274	JERICHO VALLEY	Mapped and Unprocessed	Plants - Vascula - Brassicaceae - Streptanthus hesperidis
Plants - Vascular	Streptanthus morrisonii ssp. kruckebergii	Kruckebergs jewelflower	PDBRA2G0S4	None	None	-	1B.2	3812274	JERICHO VALLEY	Mapped	Plants - Vascula - Brassicaceae - Streptanthus morrisonii ssp. kruckebergii
Plants - Vascular	Equisetum palustre	marsh horsetail	PPEQU01050	None	None	-	3	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Equisetaceae - Equisetum palustre
Plants - Vascular	Astragalus breweri	Brewers milk-vetch	PDFAB0F1J0	None	None	-	4.2	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Fabaceae - Astragalus breweri
Plants - Vascular	Astragalus clevelandii	Clevelands milk-vetch	PDFAB0F250	None	None	-	4.3	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Fabaceae -

											Astragalus clevelandii
Plants - Vascular	Astragalus rattanii var. jepsonianus	Jepsons milk-vetch	PDFAB0F7E1	None	None	-	1B.2	3812274	JERICHO VALLEY	Mapped and Unprocessed	Plants - Vascula - Fabaceae - Astragalus rattanii var. jepsonianus
Plants - Vascular	Erythronium helenae	St. Helena fawn lily	PMLIL0U060	None	None	-	4.2	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Liliaceae - Erythronium helenae
Plants - Vascular	Fritillaria pluriflora	adobe-lily	PMLIL0V0F0	None	None	-	1B.2	3812274	JERICHO VALLEY	Mapped and Unprocessed	Plants - Vascula - Liliaceae - Fritillaria pluriflora
Plants - Vascular	Fritillaria purdyi	Purdys fritillary	PMLIL0V0H0	None	None	-	4.3	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Liliaceae - Fritillaria purdyi
Plants - Vascular	Hesperolinon bicarpellatum	two-carpellate western flax	PDLIN01020	None	None	-	1B.2	3812274	JERICHO VALLEY	Mapped and Unprocessed	Plants - Vascula - Linaceae - Hesperolinon bicarpellatum
Plants - Vascular	Hesperolinon drymarioides	drymaria-like western flax	PDLIN01090	None	None	-	1B.2	3812274	JERICHO VALLEY	Mapped	Plants - Vascula - Linaceae - Hesperolinon drymarioides
Plants - Vascular	Hesperolinon sharsmithiae	Sharsmiths western flax	PDLIN010E0	None	None	-	1B.2	3812274	JERICHO VALLEY	Mapped	Plants - Vascula - Linaceae - Hesperolinon sharsmithiae
Plants - Vascular	Malacothamnus helleri	Hellers bush-mallow	PDMAL0Q0G0	None	None	-	3.3	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Malvaceae - Malacothamnus helleri
Plants - Vascular	Sidalcea keckii	Kecks checkerbloom	PDMAL110D0	Endangered	None	-	1B.1	3812274	JERICHO VALLEY	Mapped and Unprocessed	Plants - Vascula - Malvaceae - Sidalcea keckii
Plants - Vascular	Toxicoscordion fontanum	marsh zigadenus	PMLIL28050	None	None	-	4.2	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Melanthiaceae Toxicoscordion fontanum
Plants - Vascular	Calyptridium quadripetalum	four-petaled pussypaws	PDPOR09080	None	None	-	4.3	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Montiaceae - Calyptridium quadripetalum
Plants - Vascular	Clarkia gracilis ssp. tracyi	Tracys clarkia	PDONA050J4	None	None	-	4.2	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Onagraceae - Clarkia gracilis ssp. tracyi
Plants - Vascular	Piperia leptopetala	narrow-petaled rein orchid	PMORC1X100	None	None	-	4.3	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Orchidaceae - Piperia leptopetala
Plants - Vascular	Aphyllon validum ssp. howellii	Howells broomrape	PDORO040G1	None	None	-	4.3	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Orobanchacea - Aphyllon

											validum ssp. howellii
Plants - Vascular	Castilleja rubicundula var. rubicundula	pink creamsacs	PDSCR0D482	None	None	-	1B.2	3812274	JERICHO VALLEY	Mapped and Unprocessed	Plants - Vascula - Orobanchacea - Castilleja rubicundula var. rubicundula
Plants - Vascular	Cordylanthus tenuis ssp. brunneus	serpentine birds-beak	PDSCR0J0S1	None	None	-	4.3	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Orobanchacea - Cordylanthus tenuis ssp. brunneus
Plants - Vascular	Erythranthe nudata	bare monkeyflower	PDSCR1B200	None	None	-	4.3	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Phrymaceae - Erythranthe nudata
Plants - Vascular	Antirrhinum virga	twig-like snapdragon	PDSCR2S090	None	None	-	4.3	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Plantaginacea - Antirrhinum virga
Plants - Vascular	Collomia diversifolia	serpentine collomia	PDPLM02020	None	None	-	4.3	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Polemoniacea - Collomia diversifolia
Plants - Vascular	Leptosiphon latisectus	broad-lobed leptosiphon	PDPLM09150	None	None	-	4.3	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Polemoniacea - Leptosiphon latisectus
Plants - Vascular	Navarretia jepsonii	Jepsons navarretia	PDPLM0C0D0	None	None	-	4.3	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Polemoniacea - Navarretia jepsonii
Plants - Vascular	Eriogonum nervulosum	Snow Mountain buckwheat	PDPGN08440	None	None	-	1B.2	3812274	JERICHO VALLEY	Mapped	Plants - Vascula - Polygonaceae Eriogonum nervulosum
Plants - Vascular	Eriogonum tripodum	tripod buckwheat	PDPGN085Y0	None	None	-	4.2	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Polygonaceae Eriogonum tripodum
Plants - Vascular	Delphinium uliginosum	swamp larkspur	PDRAN0B1V0	None	None	-	4.2	3812274	JERICHO VALLEY	Unprocessed	Plants - Vascula - Ranunculacea - Delphinium uliginosum

Element_Type	Scientific_Name	Common_Name	Element_Code	Federal_Status	State_Status	CDFW_Status	CA_Rare_Plant_Rank	Quad_Code	Quad_Name	Data_Status	Taxonomic_S
Animals - Amphibians	Rana boylii pop. 1	foothill yellow-legged frog - north coast DPS	AAABH01051	None	None	SSC	-	3812275	MIDDLETOWN	Mapped and Unprocessed	Animals - Amphibians - Ranidae - Ran boylii pop. 1
Animals - Birds	Haliaeetus leucocephalus	bald eagle	ABNKC10010	Delisted	Endangered	FP	-	3812275	MIDDLETOWN	Mapped and Unprocessed	Animals - Bird Accipitridae - Haliaeetus leucocephalus
Animals - Mammals	Corynorhinus townsendii	Townsends big-eared bat	AMACC08010	None	None	SSC	-	3812275	MIDDLETOWN	Mapped	Animals - Mammals - Vespertilionida Corynorhinus townsendii
Animals - Mammals	Lasionycteris noctivagans	silver-haired bat	AMACC02010	None	None	-	-	3812275	MIDDLETOWN	Mapped	Animals - Mammals - Vespertilionida Lasionycteris noctivagans
Animals - Mammals	Lasiurus cinereus	hoary bat	AMACC05032	None	None	-	-	3812275	MIDDLETOWN	Mapped	Animals - Mammals - Vespertilionida Lasiurus cinereus
Animals - Mammals	Myotis yumanensis	Yuma myotis	AMACC01020	None	None	-	-	3812275	MIDDLETOWN	Unprocessed	Animals - Mammals - Vespertilionida Myotis yumanensis
Animals - Mollusks	Margaritifera falcata	western pearlshell	IMBIV27020	None	None	-	-	3812275	MIDDLETOWN	Unprocessed	Animals - Mollusks - Margaritiferida Margaritifera falcata
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	Proposed Threatened	None	SSC	-	3812275	MIDDLETOWN	Mapped and Unprocessed	Animals - Reptiles - Emydidae - Emys marmor
Community - Terrestrial	Northern Basalt Flow Vernal Pool	Northern Basalt Flow Vernal Pool	CTT44131CA	None	None	-	-	3812275	MIDDLETOWN	Mapped	Community - Terrestrial - Northern Basa Flow Vernal P
Plants - Vascular	Lomatium hooveri	Hoovers lomatium	PDAPI1B2K0	None	None	-	4.3	3812275	MIDDLETOWN	Unprocessed	Plants - Vascu - Apiaceae - Lomatium hooveri
Plants - Vascular	Lomatium repostum	Napa lomatium	PDAPI1B1M0	None	None	-	4.2	3812275	MIDDLETOWN	Unprocessed	Plants - Vascu - Apiaceae - Lomatium repostum
Plants - Vascular	Erigeron greenei	Greenes narrow-leaved daisy	PDAST3M5G0	None	None	-	1B.2	3812275	MIDDLETOWN	Mapped	Plants - Vascu - Asteraceae - Erigeron gree
Plants - Vascular	Harmonia hallii	Halls harmonia	PDAST650A0	None	None	-	1B.2	3812275	MIDDLETOWN	Mapped	Plants - Vascu - Asteraceae - Harmonia hall

Plants - Vascular	Hemizonia congesta ssp. congesta	congested-headed hayfield tarplant	PDAST4R0W1	None	None	-	1B.2	3812275	MIDDLETOWN	Mapped	Plants - Vascu - Asteraceae - Hemizonia congesta ssp. congesta
Plants - Vascular	Lasthenia burkei	Burkes goldfields	PDAST5L010	Endangered	Endangered	-	1B.1	3812275	MIDDLETOWN	Mapped	Plants - Vascu - Asteraceae - Lasthenia bur
Plants - Vascular	Amsinckia lunaris	bent-flowered fiddleneck	PDBOR01070	None	None	-	1B.2	3812275	MIDDLETOWN	Mapped	Plants - Vascu - Boraginacea Amsinckia lunaris
Plants - Vascular	Streptanthus hesperidis	green jewelflower	PDBRA2G510	None	None	-	1B.2	3812275	MIDDLETOWN	Mapped	Plants - Vascu - Brassicacea Streptanthus hesperidis
Plants - Vascular	Legenere limosa	legenere	PDCAM0C010	None	None	-	1B.1	3812275	MIDDLETOWN	Mapped	Plants - Vascu - Campanulace - Legenere limosa
Plants - Vascular	Calystegia collina ssp. oxyphylla	Mt. Saint Helena morning-glory	PDCON04032	None	None	-	4.2	3812275	MIDDLETOWN	Mapped and Unprocessed	Plants - Vascu - Convolvulac - Calystegia collina ssp. oxyphylla
Plants - Vascular	Sedella leiocarpa	Lake County stonecrop	PDCRA0F020	Endangered	Endangered	-	1B.1	3812275	MIDDLETOWN	Mapped	Plants - Vascu - Crassulacea Sedella leioca
Plants - Vascular	Astragalus breweri	Brewers milk-vetch	PDFAB0F1J0	None	None	-	4.2	3812275	MIDDLETOWN	Unprocessed	Plants - Vascu - Fabaceae - Astragalus breweri
Plants - Vascular	Astragalus rattanii var. jepsonianus	Jepsons milk-vetch	PDFAB0F7E1	None	None	-	1B.2	3812275	MIDDLETOWN	Mapped	Plants - Vascu - Fabaceae - Astragalus rattanii var. jepsonianus
Plants - Vascular	Trifolium hydrophilum	saline clover	PDFAB400R5	None	None	-	1B.2	3812275	MIDDLETOWN	Mapped	Plants - Vascu - Fabaceae - Trifolium hydrophilum
Plants - Vascular	Calochortus uniflorus	pink star-tulip	PMLIL0D1F0	None	None	-	4.2	3812275	MIDDLETOWN	Unprocessed	Plants - Vascu - Liliaceae - Calochortus uniflorus
Plants - Vascular	Erythronium helenae	St. Helena fawn lily	PMLIL0U060	None	None	-	4.2	3812275	MIDDLETOWN	Unprocessed	Plants - Vascu - Liliaceae - Erythronium helenae
Plants - Vascular	Hesperolinon bicarpellatum	two-carpellate western flax	PDLIN01020	None	None	-	1B.2	3812275	MIDDLETOWN	Mapped and Unprocessed	Plants - Vascu - Linaceae - Hesperolinon bicarpellatum
Plants - Vascular	Hesperolinon didymocarpum	Lake County western flax	PDLIN01070	None	Endangered	-	1B.2	3812275	MIDDLETOWN	Mapped and Unprocessed	Plants - Vascu - Linaceae -

											Hesperolinon didymocarpun
Plants - Vascular	Hesperolinon sharsmithiae	Sharsmiths western flax	PDLIN010E0	None	None	-	1B.2	3812275	MIDDLETOWN	Mapped	Plants - Vascu - Linaceae - Hesperolinon sharsmithiae
Plants - Vascular	Castilleja rubicundula var. rubicundula	pink creamsacs	PDSCR0D482	None	None	-	1B.2	3812275	MIDDLETOWN	Mapped	Plants - Vascu - Orobanchac - Castilleja rubicundula va rubicundula
Plants - Vascular	Erythranthe nudata	bare monkeyflower	PDSCR1B200	None	None	-	4.3	3812275	MIDDLETOWN	Unprocessed	Plants - Vascu - Phrymaceae Erythranthe nudata
Plants - Vascular	Gratiola heterosepala	Boggs Lake hedge-hyssop	PDSCR0R060	None	Endangered	-	1B.2	3812275	MIDDLETOWN	Mapped	Plants - Vascu - Plantaginace - Gratiola heterosepala
Plants - Vascular	Calamagrostis ophitidis	serpentine reed grass	PMPOA170V0	None	None	-	4.3	3812275	MIDDLETOWN	Unprocessed	Plants - Vascu - Poaceae - Calamagrostis ophitidis
Plants - Vascular	Orcuttia tenuis	slender Orcutt grass	PMPOA4G050	Threatened	Endangered	-	1B.1	3812275	MIDDLETOWN	Mapped	Plants - Vascu - Poaceae - Orcuttia tenuis
Plants - Vascular	Collomia diversifolia	serpentine collomia	PDPLM02020	None	None	-	4.3	3812275	MIDDLETOWN	Unprocessed	Plants - Vascu - Polemoniace - Collomia diversifolia
Plants - Vascular	Leptosiphon aureus	bristly leptosiphon	PDPLM09010	None	None	-	4.2	3812275	MIDDLETOWN	Unprocessed	Plants - Vascu - Polemoniace - Leptosiphon aureus
Plants - Vascular	Leptosiphon jepsonii	Jepsons leptosiphon	PDPLM09140	None	None	-	1B.2	3812275	MIDDLETOWN	Mapped	Plants - Vascu - Polemoniace - Leptosiphon jepsonii
Plants - Vascular	Leptosiphon latisectus	broad-lobed leptosiphon	PDPLM09150	None	None	-	4.3	3812275	MIDDLETOWN	Unprocessed	Plants - Vascu - Polemoniace - Leptosiphon latisectus
Plants - Vascular	Navarretia cotulifolia	cotula navarretia	PDPLM0C040	None	None	-	4.2	3812275	MIDDLETOWN	Unprocessed	Plants - Vascu - Polemoniace - Navarretia cotulifolia
Plants - Vascular	Navarretia jepsonii	Jepsons navarretia	PDPLM0C0D0	None	None	-	4.3	3812275	MIDDLETOWN	Unprocessed	Plants - Vascu - Polemoniace - Navarretia jepsonii
Plants - Vascular	Navarretia leucocephala ssp. bakeri	Bakers navarretia	PDPLM0C0E1	None	None	-	1B.1	3812275	MIDDLETOWN	Mapped	Plants - Vascu - Polemoniace - Navarretia leucocephala ssp. bakeri
Plants - Vascular	Navarretia leucocephala	many-flowered navarretia	PDPLM0C0E5	Endangered	Endangered	-	1B.2	3812275	MIDDLETOWN	Mapped	Plants - Vascu - Polemoniace

	ssp. plieantha										- Navarretia leucocephala ssp. plieantha
Plants - Vascular	Navarretia paradoxinota	Porters navarretia	PDPLM0C160	None	None	-	1B.3	3812275	MIDDLETOWN	Mapped	Plants - Vascu - Polemoniace - Navarretia paradoxinota
Plants - Vascular	Delphinium uliginosum	swamp larkspur	PDRAN0B1V0	None	None	-	4.2	3812275	MIDDLETOWN	Unprocessed	Plants - Vascu - Ranunculace - Delphinium uliginosum

CALIFORNIA NATIVE PLANT SOCIETY

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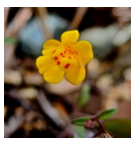
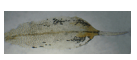
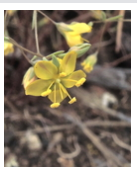
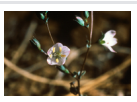
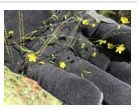
Search Results

41 matches found. Click on scientific name for details

Search Criteria: Quad is one of [**3812274**]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	CA ENDEMIC	DATE ADDED	PHOTO
Allium fimbriatum var. *purdyi*	Purdy's onion	Alliaceae	perennial bulbiferous herb	Apr-Jun	None	None	G4G5T3	S3	4.3	Yes	1980-01-01	 © 2014 Steve Matson
Amsinckia lunaris	bent-flowered fiddleneck	Boraginaceae	annual herb	Mar-Jun	None	None	G3	S3	1B.2	Yes	1974-01-01	 © 2011 Neal Kramer
Antirrhinum virga	twig-like snapdragon	Plantaginaceae	perennial herb	Jun-Jul	None	None	G3?	S3?	4.3	Yes	1974-01-01	 © 2013 Aaron Schusteff
Aphyllon validum ssp. *howellii*	Howell's broomrape	Orobanchaceae	perennial herb (parasitic)	Jun-Sep	None	None	G4T3	S3	4.3	Yes	1984-01-01	No Photo Available
Arabis modesta	modest rockcress	Brassicaceae	perennial herb	Mar-Jul	None	None	G3	S3	4.3		1974-01-01	 ©2014 Scot Loring
Arabis oregana	Oregon rockcress	Brassicaceae	perennial herb	May	None	None	G3G4Q	S3	4.3		1974-01-01	 ©2021 Scot Loring

Asclepias solanoana	serpentine milkweed	Apocynaceae	perennial herb	May-Jul(Aug)	None	None	G3	S3	4.2	Yes	1974-01-01	 © 2009 Julie Kierstead Nelson
Astragalus breweri	Brewer's milk-vetch	Fabaceae	annual herb	Apr-Jun	None	None	G3	S3	4.2	Yes	1974-01-01	No Photo Available
Astragalus clevelandii	Cleveland's milk-vetch	Fabaceae	perennial herb	Jun-Sep	None	None	G4	S4	4.3	Yes	1974-01-01	No Photo Available
Astragalus rattanii var. *jepsonianus*	Jepson's milk-vetch	Fabaceae	annual herb	Mar-Jun	None	None	G4T3	S3	1B.2	Yes	1988-01-01	No Photo Available
Balsamorhiza macrolepis	big-scale balsamroot	Asteraceae	perennial herb	Mar-Jun	None	None	G2	S2	1B.2	Yes	1974-01-01	 ©1998 Dean Wm. Taylor
Calyptridium quadripetalum	four-petaled pussypaws	Montiaceae	annual herb	Apr-Jun	None	None	G4	S4	4.3	Yes	1974-01-01	No Photo Available
Castilleja rubicundula var. *rubicundula*	pink creamsacs	Orobanchaceae	annual herb (hemiparasitic)	Apr-Jun	None	None	G5T2	S2	1B.2	Yes	2001-01-01	 ©2010 Vernon Smith
Clarkia gracilis ssp. *tracyi*	Tracy's clarkia	Onagraceae	annual herb	Apr-Jul	None	None	G5T3	S3	4.2	Yes	2001-01-01	No Photo Available
Collomia diversifolia	serpentine collomia	Polemoniaceae	annual herb	May-Jun	None	None	G4	S4	4.3	Yes	1974-01-01	 ©2019 Zoya Akulova
Cordylanthus tenuis ssp. *brunneus*	serpentine bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	Jul-Aug	None	None	G4G5T3	S3	4.3	Yes	1988-01-01	No Photo Available
Delphinium uliginosum	swamp larkspur	Ranunculaceae	perennial herb	May-Jun	None	None	G3	S3	4.2	Yes	1974-01-01	No Photo Available
Equisetum palustre	marsh horsetail	Equisetaceae	perennial rhizomatous herb	Unk	None	None	G5	S1S3	3		1994-01-01	No Photo Available
Eriogonum nervulosum	Snow Mountain buckwheat	Polygonaceae	perennial rhizomatous herb	Jun-Sep	None	None	G2	S2	1B.2	Yes	1980-01-01	 © Rick York and CNPS

Eriogonum tripodum	tripod buckwheat	Polygonaceae	perennial deciduous shrub	May-Jul	None	None	G4	S4	4.2	Yes	1974-01-01	 ©2008 Steven Perry
Erythranthe nudata	bare monkeyflower	Phrymaceae	annual herb	May-Jun	None	None	G4	S4	4.3	Yes	1974-01-01	 John Doyen 2015
Erythronium helenae	St. Helena fawn lily	Liliaceae	perennial bulbiferous herb	Mar-May	None	None	G3	S3	4.2	Yes	1974-01-01	No Photo Available
Fritillaria pluriflora	adobe-lily	Liliaceae	perennial bulbiferous herb	Feb-Apr	None	None	G2G3	S2S3	1B.2	Yes	1974-01-01	 © 2015 Steve Matson
Fritillaria purdyi	Purdy's fritillary	Liliaceae	perennial bulbiferous herb	Mar-Jun	None	None	G4	S4	4.3		1974-01-01	 Aaron Schusteff, 2004
Grimmia torenii	Toren's grimmia	Grimmiaceae	moss		None	None	G2	S2	1B.3	Yes	2014-05-14	 ©2021 Scot Loring
Harmonia hallii	Hall's harmonia	Asteraceae	annual herb	(Mar)Apr-Jun	None	None	G2?	S2?	1B.2	Yes	1984-01-01	 © 2015 John Doyen
Hesperolinon bicarpellatum	two-carpellate western flax	Linaceae	annual herb	(Apr)May-Jul	None	None	G2	S2	1B.2	Yes	1974-01-01	 © 2016 John Doyen
Hesperolinon drymarioides	drymaria-like western flax	Linaceae	annual herb	May-Aug	None	None	G2	S2	1B.2	Yes	1974-01-01	 © Niall McCarten and CNPS
Hesperolinon sharsmithiae	Sharsmith's western flax	Linaceae	annual herb	May-Jul	None	None	G2Q	S2	1B.2	Yes	2012-12-14	 © 2017 Aaron Arthur

Layia septentrionalis	Colusa layia	Asteraceae	annual herb	Apr-May	None	None	G2	S2	1B.2	Yes	1994-01-01	 © 2013 Jake Ruygt
Leptosiphon latisectus	broad-lobed leptosiphon	Polemoniaceae	annual herb	Apr-Jun	None	None	G4	S4	4.3	Yes	2001-01-01	 © 2015 Steve Matson
Lomatium hooveri	Hoover's lomatium	Apiaceae	perennial herb	Apr-Jul	None	None	G3	S3	4.3	Yes	1980-01-01	No Photo Available
Malacothamnus helleri	Heller's bush-mallow	Malvaceae	perennial deciduous shrub	May-Jul	None	None	G2Q	S2	3.3	Yes	1974-01-01	 © 2017 Keir Morse
Navarretia jepsonii	Jepson's navarretia	Polemoniaceae	annual herb	Apr-Jun	None	None	G4	S4	4.3	Yes	1974-01-01	 © 2011 Vernon Smith
Piperia leptopetala	narrow-petaled rein orchid	Orchidaceae	perennial herb	May-Jul	None	None	G4	S4	4.3	Yes	2001-01-01	No Photo Available
Senecio clevelandii var. *clevelandii*	Cleveland's ragwort	Asteraceae	perennial herb	Jun-Jul	None	None	G4?T3Q	S3	4.3	Yes	1980-01-01	No Photo Available
Sidalcea keckii	Keck's checkerbloom	Malvaceae	annual herb	Apr-May(Jun)	FE	None	G2	S2	1B.1	Yes	1974-01-01	No Photo Available
Streptanthus brachiatus ssp. *hoffmanii*	Freed's jewelflower	Brassicaceae	perennial herb	May-Jul	None	None	G2T2	S2	1B.2	Yes	1994-01-01	No Photo Available
Streptanthus hesperidis	green jewelflower	Brassicaceae	annual herb	May-Jul	None	None	G2G3	S2S3	1B.2	Yes	2001-01-01	No Photo Available
Streptanthus morrisonii ssp. *kruckebergii*	Kruckeberg's jewelflower	Brassicaceae	perennial herb	Apr-Jul	None	None	G2T1	S1	1B.2	Yes	1994-01-01	No Photo Available
Toxicoscordion fontanum	marsh zigadenus	Melanthiaceae	perennial bulbiferous herb	Apr-Jul	None	None	G3	S3	4.2	Yes	2001-01-01	No Photo Available

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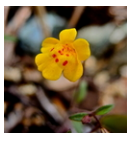
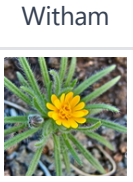
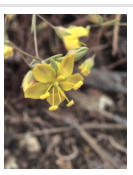
▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	CA ENDEMIC	DATE ADDED	PHOTO
Amsinckia lunaris	bent-flowered fiddleneck	Boraginaceae	annual herb	Mar-Jun	None	None	G3	S3	1B.2	Yes	1974-01-01	 © 2011 Neal Kramer
Astragalus breweri	Brewer's milk-vetch	Fabaceae	annual herb	Apr-Jun	None	None	G3	S3	4.2	Yes	1974-01-01	No Photo Available
Astragalus rattanii var. *jepsonianus*	Jepson's milk-vetch	Fabaceae	annual herb	Mar-Jun	None	None	G4T3	S3	1B.2	Yes	1988-01-01	No Photo Available
Calamagrostis ophitidis	serpentine reed grass	Poaceae	perennial herb	Apr-Jul	None	None	G3	S3	4.3	Yes	1974-01-01	No Photo Available
Calochortus uniflorus	pink star-tulip	Liliaceae	perennial bulbiferous herb	Apr-Jun	None	None	G4	S4	4.2		2010-03-04	 © 2021 Scot Loring
Calystegia collina ssp. *oxyphylla*	Mt. Saint Helena morning-glory	Convolvulaceae	perennial rhizomatous herb	Apr-Jun	None	None	G4T3	S3	4.2	Yes	1984-01-01	No Photo Available
Castilleja rubicundula var. *rubicundula*	pink creamsacs	Orobanchaceae	annual herb (hemiparasitic)	Apr-Jun	None	None	G5T2	S2	1B.2	Yes	2001-01-01	 ©2010 Vernon Smith
Collomia diversifolia	serpentine collomia	Polemoniaceae	annual herb	May-Jun	None	None	G4	S4	4.3	Yes	1974-01-01	 ©2019 Zoya Akulova
Delphinium uliginosum	swamp larkspur	Ranunculaceae	perennial herb	May-Jun	None	None	G3	S3	4.2	Yes	1974-01-01	No Photo Available

Erigeron greenei	Greene's narrow-leaved daisy	Asteraceae	perennial herb	May-Sep	None	None	G3	S3	1B.2	Yes	1994-01-01	No Photo Available
Erythranthe nudata	bare monkeyflower	Phrymaceae	annual herb	May-Jun	None	None	G4	S4	4.3	Yes	1974-01-01	 John Doyen 2015
Erythronium helenae	St. Helena fawn lily	Liliaceae	perennial bulbiferous herb	Mar-May	None	None	G3	S3	4.2	Yes	1974-01-01	No Photo Available
Gratiola heterosepala	Boggs Lake hedge-hyssop	Plantaginaceae	annual herb	Apr-Aug	None	CE	G2	S2	1B.2		1974-01-01	 ©2004 Carol W. Witham
Harmonia hallii	Hall's harmonia	Asteraceae	annual herb	(Mar)Apr-Jun	None	None	G2?	S2?	1B.2	Yes	1984-01-01	 © 2015 John Doyen
Hemizonia congesta ssp. *congesta*	congested-headed hayfield tarplant	Asteraceae	annual herb	Apr-Nov	None	None	G5T2	S2	1B.2	Yes	1988-01-01	 © 2015 Vernon Smith
Hesperolinon bicarpellatum	two-carpellate western flax	Linaceae	annual herb	(Apr)May-Jul	None	None	G2	S2	1B.2	Yes	1974-01-01	 © 2016 John Doyen
Hesperolinon didymocarpum	Lake County western flax	Linaceae	annual herb	May-Jul	None	CE	G1	S1	1B.2	Yes	1974-01-01	 © 2018 Aaron Arthur
Hesperolinon sharsmithiae	Sharsmith's western flax	Linaceae	annual herb	May-Jul	None	None	G2Q	S2	1B.2	Yes	2012-12-14	 © 2017 Aaron Arthur
Lasthenia burkei	Burke's goldfields	Asteraceae	annual herb	Apr-Jun	FE	CE	G1	S1	1B.1	Yes	1974-01-01	 © 2015 Neal Kramer

Legenere limosa	legenere	Campanulaceae	annual herb	Apr-Jun	None	None	G2	S2	1B.1	Yes	1974-01-01	 ©2000 John Game
Leptosiphon aureus	bristly leptosiphon	Polemoniaceae	annual herb	Apr-Jul	None	None	G4?	S4?	4.2	Yes	1994-01-01	 © 2007 Len Blumin
Leptosiphon jepsonii	Jepson's leptosiphon	Polemoniaceae	annual herb	Mar-May	None	None	G2G3	S2S3	1B.2	Yes	2001-01-01	 © 2012 Aaron Arthur
Leptosiphon latisectus	broad-lobed leptosiphon	Polemoniaceae	annual herb	Apr-Jun	None	None	G4	S4	4.3	Yes	2001-01-01	 © 2015 Steve Matson
Lomatium hooveri	Hoover's lomatium	Apiaceae	perennial herb	Apr-Jul	None	None	G3	S3	4.3	Yes	1980-01-01	No Photo Available
Lomatium repostum	Napa lomatium	Apiaceae	perennial herb	Mar-Jun	None	None	G3	S3	4.2	Yes	1974-01-01	No Photo Available
Navarretia cotulifolia	cotula navarretia	Polemoniaceae	annual herb	May-Jun	None	None	G4	S4	4.2	Yes	2001-01-01	 © 2020 Zoya Akulova
Navarretia jepsonii	Jepson's navarretia	Polemoniaceae	annual herb	Apr-Jun	None	None	G4	S4	4.3	Yes	1974-01-01	 © 2011 Vernon Smith
Navarretia leucocephala ssp. *bakeri*	Baker's navarretia	Polemoniaceae	annual herb	Apr-Jul	None	None	G4T2	S2	1B.1	Yes	1994-01-01	 © 2018 Barry Rice
Navarretia leucocephala ssp. *plieantha*	many-flowered navarretia	Polemoniaceae	annual herb	May-Jun	FE	CE	G4T1	S1	1B.2	Yes	1974-01-01	No Photo Available
Navarretia paradoxinota	Porter's navarretia	Polemoniaceae	annual herb	May-Jun(Jul)	None	None	G2	S2	1B.3	Yes	2016-04-27	No Photo Available

Orcuttia tenuis	slender Orcutt grass	Poaceae	annual herb	May-Sep(Oct)	FT	CE	G2	S2	1B.1	Yes	1974-01-01	 © 2013 Justy Leppert
Sedella leiocarpa	Lake County stonecrop	Crassulaceae	annual herb	Apr-May	FE	CE	G1	S1	1B.1	Yes	1974-01-01	No Photo Available
Streptanthus hesperidis	green jewelflower	Brassicaceae	annual herb	May-Jul	None	None	G2G3	S2S3	1B.2	Yes	2001-01-01	No Photo Available
Trifolium hydrophilum	saline clover	Fabaceae	annual herb	Apr-Jun	None	None	G2	S2	1B.2	Yes	2001-01-01	 © 2005 Dean Wm Taylor

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