468 WESTMONT AVENUE, SAN LUIS OBISPO, SAN LUIS OBISPO COUNTY, CALIFORNIA

(Assessor's Parcel Number 052-496-001)

BIOLOGICAL RESOURCES ASSESSMENT

Prepared for:

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EXECUTIVE SUMMARY

Kevin Merk Associates, LLC (KMA) conducted this biological resources assessment (BRA) for a proposed residential subdivision within the Urban Reserve Limits of the City of San Luis Obispo (Assessor's Parcel Number 052-496-001, "property"). The proposed project involves the creation of 23 single-family residential lots on an approximately 5-acre parcel with an existing single-family residence and auxiliary structures that would be removed. The property is situated within the northwestern edge of urban development, with dense residential development surrounding the site on three sides and the CalFire facility and California Polytechnic State University grazing lands present to the north.

The purpose of this assessment was to assist the property owner with technical biological resources information to support the application for approval of the Vesting Tentative Tract Map 3157 from the City of San Luis Obispo (City). This report evaluates the potential for the subject property to support special-status biological resources, and whether these resources could be adversely affected by the proposed project. A desktop review of available background information on special-status biological resources in the project vicinity was used for this analysis. A tree survey and seasonally timed rare plant surveys were also conducted.

Five plant communities or land use types were identified within the study area, and include: 1) Ornamental; 2) Developed/Ruderal; 3) Riparian; 4) Annual Grassland; and, 5) Rock Outcrop. A prominent feature of the property is landscaped areas and Ornamental plantings, which represent a diversity of horticultural specimens. In the western portion of the property, an unnamed, intermittent drainage that is locally known as Twin Ridge Creek runs from north to south, and is surrounded by Riparian forest. The stream originates on the northeast slope of Bishop Peak a short distance from the property, and is a tributary to San Luis Obispo Creek. The Riparian habitat had a mixture of native coast live oak and willows along with a variety of non-native ornamental species that had become established or were intentionally planted. The Riparian habitat is considered to be a sensitive natural community by the California Department of Fish and Wildlife (CDFW) and a sensitive resource by the City. Annual Grassland on the property was subdivided into paddocks that are periodically used for horse grazing, and due to a history of disturbance was dominated by non-native species. There was one small rock outcrop in the western portion of the property, which was not serpentine and did not represent a significant feature due to its small size. Soils were of dark, loamy clays. Elevations on the property range from 287 to 333 feet (87 to 101 meters) above mean sea level.

A total of 177 trees were identified during the tree surveys, consisting of ornamental species, species native to the region that were planted, and naturally occurring native species within the Riparian habitat. The background review determined that four special-status plant species recorded from the vicinity of the site had potential to occur within the property, and seasonally timed rare plant surveys were conducted to determine their presence or absence. One of these species were found onsite, which was the Cambria morning-glory (*Calystegia subacaulis* ssp. *episcopalis*; California Rare Plant Rank [CRPR] 4.2). It was found in four occurrences totaling 1,076 square feet and comprised of approximately 300 plants. The focused rare plant surveys conducted for this investigation were floristic in nature and covered all parts of the property to ensure thorough coverage during the blooming period of the species with potential to occur; therefore, no further surveys are recommended. The project will impact the Cambria morning-glory occurrences, and compensatory mitigation involving seed, whole plant collection and planting, and/or salvaged topsoil to be spread in a designated open space location. Five years of monitoring and adaptive management measures to ensure no net loss of the species onsite is recommended.

Three invertebrate, one reptile, nineteen bird, and four mammal species were considered to have potential to occur on the property. No fish species could occur because the onsite drainage is too ephemeral to support fish. The property occurs in designated critical habitat for the California red-legged frog (*Rana draytonii*), but the drainage is too ephemeral to support aquatic habitat of this species. The Riparian habitat along the drainage could be suitable dispersal habitat for the frog, and Annual Grassland could be suitable upland habitat, but there were no documented occurrences of the species within 1 mile of the site that were not separated by barriers to movement. The project was determined to have potential to affect burrowing owl (*Athene cunicularia*), northern California legless lizard (*Anniella pulchra*), San Diego desert woodrat (*Neotoma lepida intermedia*), protected nesting birds and roosting bats. Mitigation prescribed for these species involves seasonal restriction of initial construction phases (to avoid burrowing owl and water quality effects), if possible; preconstruction surveys and avoidance/relocation; Worker Environmental Awareness Program; wildlife exclusion/silt fence to delineate allowable work area from protected creek setback area; and, biological monitoring during initial construction phases.

The impact area for the proposed subdivision would occur in the Developed/Ruderal and Ornamental land uses associated with an existing residence, and grazed Annual Grassland, which do not represent significant value to wildlife. A 20-foot setback along the drainage has been designated from the top of bank or edge of riparian, whichever is farther. However, in several areas grading is proposed within the creek setback to create side slopes needed for the level building pads. A rip rap pad at the outfall of a stormwater retention area is planned very close to or within the creek channel, and underground stormwater treatment/retention areas are planned for within the creek setback area. A wetland delineation will be needed to determine the extent of areas under the jurisdiction of U.S. Army Corps of Engineers under Section 404 of the Clean Water Act; Regional Water Quality Control Board under Section 401 of the Clean Water Act and Porter-Cologne Water Quality Control Act; and, CDFW pursuant to California Fish and Game Code Sections 1600 et seq. Any work conducted in jurisdictional areas would require permitting from these agencies and the preparation and implementation of a Habitat Mitigation and Monitoring Plan (HMMP). The project's Fire Protection Plan calls for the removal of non-native trees in the Riparian habitat. Well over 100 trees planted in landscaped and ornamental areas would be removed, and in compliance with the City Municipal Code for Tree Removal 12.24.090 these trees would need to be replaced at a 1:1 ratio. The HMMP would cover the techniques and monitoring methods for compensatory mitigation that may be needed in compliance with agency permits for jurisdictional area impacts, as well as some of the City-required tree planting within the creek setback zone. It is expected that additional tree planting for City requirements will be incorporated into the residential lots. To prevent indirect effects of stormwater runoff from construction areas on the Riparian habitat onsite and in downstream areas, Best Management Practices (BMPs) and biological monitoring of site disturbance activities and implementation of the BMPs are also required. Temporarily disturbed areas shall be planted with a native seed mix to stabilize these areas.

The proposed project did not trigger any of the criteria that would meet a mandatory finding of significance under the California Environmental Quality Act (CEQA). Mitigation measures for the six additional impacts evaluated under CEQA described herein would reduce project effects below a level of significance.

1.0 INTRODUCTION

Kevin Merk Associates, LLC (KMA) conducted this biological resources assessment (BRA) for a proposed subdivision of an approximately 5-acre parcel at 468 Westmont Avenue, San Luis Obispo, San Luis Obispo County, California. The property is identified as Assessor's Parcel Number (APN) 052-496-001, and zoned Low Density Residential (R-1). The project is located 0.3 mile to the northwest of the intersection of Highland Drive with Highway 1, within the Urban Reserve Limits of the City of San Luis Obispo (Figure 1). It is on the U. S. Geological Survey (USGS) San Luis Obispo 7.5-minute topographic quadrangle (T 30 S, R 12 E, northeast corner of the southwest corner of Section 22; 35.301156° N, -120.678971° W). The property is situated within a residential area within the northwestern edge of urban development in the City of San Luis Obispo (Figure 2). Dense residential development surrounds the property on its western, southern, and eastern boundaries. A CalFire station is along the northern boundary, and an expanse of grazed grassland beyond. The grassland is California Polytechnic State University (CalPoly) lands and is contiguous with the northern border of the property in the western portion. Farther to the west and south are open space areas for Bishop Peak and Cerro San Luis. On the east side of Highway 1 is CalPoly's agricultural fields and livestock grazing areas.

The purpose of this assessment is to assist the property owner with technical biological resources information to support the application for a proposed lot subdivision with the City of San Luis Obispo (City). This report evaluates the potential for the project site to support special-status biological resources (plants, animals, sensitive natural communities, and designated critical habitat) for the California Environmental Quality Act (CEQA) review to be conducted by the City for the project. This BRA evaluated the site's existing natural conditions to determine whether special-status biological resources may be present onsite and could be adversely affected by the proposed project. Also included in this investigation is a tree survey, as well as seasonally timed rare plant surveys.

1.1 Project Description

As shown on the vesting tentative tract map prepared for the project by Cannon (August 17, 2020; included as Appendix A), the project involves the creation of 23 single-family residential lots. The existing residence, accessory buildings, and driveway would be removed, as well as most of the ornamental trees scattered throughout the property. The lots would range in size from 6,000 to 24,451 square feet, with building envelopes permitted for two-story residences ranging from 1,934 to 3,766 square feet. The northern end of Stanford Drive that is used to access the current residence would be expanded and the alignment would bend to the east to connect with Cuesta Drive. A majority of the lots would have access from this new extension, and the remainder of the lots would access Westmont Avenue on its eastern or western dead ends. The building envelopes have been designed to avoid the riparian habitat surrounding a drainage that runs north to south through the western portion of the property (known locally as "Twin Ridge Creek"). The edge of riparian habitat and limits of the top of bank, whichever is farther from the creek centerline, were delineated in the field and a 20-foot creek setback was developed to separate site development from the creek corridor. Some grading of the development pads would occur in the setback. The project's stormwater plan has a combination of harvesting, infiltration, evapotranspiration and biofiltration treatment, along with the underground stormwater retention devices. The project would include several retaining walls, and along the northern border of lots 7-9, a 3-foot tall non-combustible wall would be constructed, as detailed in the project's wildland fire protection report.

KEVIN MERK ASSOCIATES

N W E S

1 in = 3 miles

468 Westmont Avenue, San Luis

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Figure 1

Site Location

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N W E S 1 in = 200 feet

468 Westmont Avenue, San Luis Obispo

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Figure 2

Aerial Overview

1.2 Regulatory Overview

For the purpose of this report, special-status species are those plants and animals listed, or Candidates for listing, as Threatened or Endangered by the U.S. Fish and Wildlife Service (USFWS) under the federal Endangered Species Act (FESA); those listed as Threatened or Endangered under the California Endangered Species Act (CESA); animals designated as "Species of Special Concern," "Fully Protected," or "Watch List" by the California Department of Fish and Wildlife (CDFW; 2019); plants considered Endangered or Rare under the California Native Plant Protection Act; and, animals considered sensitive that do not have a specific listing status but which are recorded in the California Natural Diversity Database (CNDDB; CDFW 2020a).

FESA provisions protect federally listed species and their habitats from unlawful take, which is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any of the specifically enumerated conduct." Under these regulations, "harm" may include significant habitat modification or degradation that kills or injures wildlife. Candidate species are not afforded legal protection under FESA; however, Candidate species typically receive special attention during the CEQA environmental review process. CESA provides for the protection and preservation of native species of plants and animals that are experiencing a significant decline which if not halted would lead to a threatened or endangered designation. Habitat degradation or modification is not expressly included in the definition of take under CESA.

CDFW maintains a list of Species of Special Concern for those species in which declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction. The goal of designating species as special concern is to halt or reverse their decline early enough to secure their long-term viability. Species of Special Concern may receive special attention during environmental review, but do not have statutory protection. FESA and CESA emphasize early consultation to avoid impacts on Threatened and Endangered species. As part of the consultation process, project proponents are directed to develop appropriate mitigation plans to offset project effects on listed species and their habitats.

Sensitive natural communities are those native plant communities listed in the CNDDB (CDFW 2020a) as rare or of limited distribution. They are evaluated using NatureServe's Heritage Methodology to assign global and state ranks based on rarity and threat, and these ranks are reviewed and adopted by CDFW's (2020b) *Vegetation Classification and Mapping Program* (VegCAMP). Evaluation with the state (S) level results in ranks ranging from 1 (very rare or threatened) to 5 (demonstrably secure). Those with ranks of S1 to S3 are to be addressed in the environmental review process under CEQA (CDFW 2020b).

Critical habitat is designated for species listed under FESA, and are areas that contain the physical or biological features which are essential to the conservation of those species and may need special management or protection. Critical habitat designations affect only federal agency actions or federally funded or permitted activities. Activities by private landowners are not affected if there is no federal nexus.

Rare plants are those defined as occurring on California Rare Plant Rank (CRPR) 1A, 1B, 2A, 2B, 3 and 4 developed by the CDFW working in concert with the California Native Plant Society (CNPS; CDFW 2020c). Rank 4 species are a watch list, and typically do not meet CEQA's rarity definition (Section 15380), but are included here because they may be of local concern. The CRPR definitions are as follows:

- *Rank 1A: Presumed extirpated in California and either rare or extinct elsewhere.* These species are presumed extirpated because they have not been recorded in the wild in California for many years.
- *Rank 1B: Rare, threatened or endangered in California and elsewhere.* Plants that are rare throughout their range and the majority in this rank are endemic to California.
- *Rank 2A: Presumed extirpated in California, but more common elsewhere.* These species are presumed extirpated because they have not been recorded in the wild in California for many years, but they are common outside of the state.
- *Rank 2B: Rare, threatened or endangered in California, but more common elsewhere.* Plants that have ranges that extend into California, where they are rare, but are common in areas outside of the state.
- *Rank 3: Plants needing more information - A review list.* Information necessary to assign the species to one of the lists or reject them is lacking. Most species in this rank are taxonomically unresolved.
- *Rank 4: Plants of limited distribution - A watch list.* Species of limited distribution or infrequent occurrence throughout their range in California but which their vulnerability to extirpation appears low at this time and should be monitored.

Additionally, the CRPR system further assigns threat codes as a decimal extension to the rank, ranging from 1 to 3. CRPR 3 species do not have a threat code due to insufficiency of information needed to assign it, and CRPR 1A and 2A also do not have threat codes because they not know to currently occur in California. The threat code extensions are as follows:

- *.1: Seriously threatened in California.* More than 80% of occurrences are threatened and there is high degree and immediacy of threat.
- *.2: Moderately threatened in California.* Approximately 20 to 80% of occurrences are threatened and there is a moderate degree of immediacy of threat.
- *.3: Not very threatened in California.* Less than 20% of occurrences are threatened and the is a low degree and immediacy of threat, or no current threats are known.

Raptors (e.g., eagles, hawks, and owls) and their nests are protected under both federal and state regulations. Birds of prey are protected in California under the California Fish and Game (2001) Code Section 3503.5. Disturbance that causes nest abandonment or loss of reproductive effort is considered take by CDFW. Eagles are protected under the Bald and Golden Eagle Protection Act. The federal Migratory Bird Treaty Act (MBTA) applies to many bird species, including common species, and prohibits killing, possessing, or trading in migratory birds, including whole birds, parts of birds, bird nests, and eggs. The act restricts construction disturbance during the nesting season that could result in the incidental loss of fertile eggs or nestlings or otherwise lead to nest abandonment.

The City of San Luis Obispo Municipal Code for Tree Removal 12.24.090 discourages the removal of healthy trees that present no threat to people or property, and requires a permit for tree removal. For properties zoned R-1, as in the case of the subject property, a tree removal permit is not needed if all of the following conditions exist:

- The tree is a designated native species and the trunk is less than ten inches in diameter as measured at standard height (4' 6" from the ground), or for non-native species the trunk is less than twenty inches in diameter; and
- The tree is not located in a creek setback area; and
- The tree is not a designated street tree, and is not located within ten feet of the back of the sidewalk; and
- Planting or retention of the tree was not a condition of development; or
- The tree is a palm and the trunk is less than twelve inches in diameter.

Issuance of tree removal permits from the City require a site plan showing the location, species and size of any tree proposed for removal, with the trees uniquely identified by number. Information must be provided supporting the reason for tree removal, including photographs or diagrams. A replanting plan shall also be prepared detailing compensatory tree planting with the size, location and species of trees to be planted. The application may also require an arborist report, site plan showing the drip line of each tree, and site-specific tree protection plan for trees that would remain.

CEQA defines a *significant effect on the environment* as "a substantial, or potentially substantial, adverse change in the environment." Projects that may have significant effects are required to be analyzed in an Environmental Impact Report (EIR). Under CEQA, a project's effects on biotic resources are deemed significant where the project would do any of the following:

- Potentially substantially degrade the quality of the environment;
- Substantially reduce the habitat of a fish or wildlife species;
- Cause a fish or wildlife population to drop below self-sustaining levels;
- Threaten to eliminate a plant or animal community;
- Substantially reduce the number or restrict the range of an endangered, threatened, or rare species; or,
- Have possible environmental effects that are individually limited but cumulatively considerable.

In addition to the criteria above that trigger mandatory findings of significance, Appendix G of the CEQA Guidelines includes six additional impacts to consider when analyzing the significance of project effects, which may or may not be significant, depending on the level of impact. A project's effects on biological resources could be deemed significant if the project would do the following:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or USFWS.
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

If the project proponent agrees to mitigation measures or project modifications that would avoid all significant effects or would mitigate the significant effect(s) to a point below the level of significance, an EIR would not be required. The project proponent would be bound to implement the mitigation measures to reduce the project effects to below a level of significance. Mitigation is not required for effects that are less than significant.

2.0 METHODS

2.1 Biological Resources Assessment

Google Earth aerial imagery was employed in coordination with field surveys to define the current extent of onsite plant communities and assist in identifying potential habitat for special-status species. KMA's Principal Biologist Kevin B. Merk and Senior Biologist Susan V. Christopher conducted a reconnaissance survey of the entire property, which was considered to be the study area for this investigation, concurrent with the first tree and rare plant survey, on March 4, 2020. This survey was conducted between 0900 and 1600 hours, and weather conditions were mostly clear with partial high clouds, wind 0 to 3 miles per hour and air temperatures in the mid to high-60s°F. The second survey, in which additional plant and animal species observed onsite were recorded, took place on March 28, 2020 between 0930 and 1600 hours, and the weather was high clouds, wind 5 to 10 miles per hour, and air temperature 54°F at the start. Additional surveys were conducted by Kevin Merk on April 23 and May 20, 2020.

The site was accessed from Stanford Drive, and the surveys were conducted by walking and visually inspecting all portions of the study area. All plant and wildlife species observed during the surveys were recorded (Appendix B). Habitat types were mapped on aerial imagery, and dominant plant species in each habitat type were determined. Plant taxonomy followed the Jepson Flora Project (2020), and nomenclature for animals is reported as it appears in the CNDDB (CDFW 2020a) or as updates are available (California Herps 2020). Plant communities and land use types were mapped on ESRI (2020) aerial imagery. Classification of the onsite plant communities was based on Holland's (1986) *Preliminary Descriptions of the Terrestrial Natural Communities of California* and the CDFW's (2020b) *Vegetation Classification and Mapping Program*, which generally follows Sawyer et al.'s (2009) *Manual of California Vegetation*. *A Guide to Wildlife Habitats in California*, which is updated through the California Wildlife Habitat Relationships (CWHR) System (CDFW 2020d), was also cross-referenced. Representative photographs of each of the habitat types within the study area are provided in a photo plate (Appendix C).

The *Web Soil Survey* (Natural Resources Conservation Service [NRCS] 2020) was used to identify the soil mapping units present within the study area. The *National Wetlands Inventory* (NWI) was examined to evaluate the extent of any identified wetlands on the site and in the vicinity (USFWS 2020a). USGS topographic maps were also reviewed for information on hydrologic and topographic features. Designated critical habitat for species listed under FESA was identified and mapped based upon information provided in *Environmental Conservation Online System* (USFWS 2020b).

The CNDDB (CDFW 2020a) was queried for special-status plant and animal species occurrences and sensitive natural communities within the following nine USGS 7.5-minute quadrangles: San Luis Obispo, Morro Bay North, Atascadero, Santa Margarita, Lopez Mountain, Arroyo Grande

Northeast, Pismo Beach, Port San Luis, and Morro Bay South. The records occurring within a five-mile buffer of the study area were mapped. For each of the special-status species in the nine-quadrangle CNDDB search, local distribution and ecological information was obtained from a variety of online and published sources (Hoover 1970, Jennings and Hayes 1994, Bolster 1998, Moyle et al. 2015, Thompson et al. 2016, Audubon 2020, Calflora 2020, California Native Plant Society 2020a, California Herps 2020, The Cornell Lab of Ornithology 2020a, 2020b; CDFW 2020d). Those species that occur within the San Luis Obispo and Chorro Creek watersheds, as well as each species recorded in the CNDDB within five miles, were considered to be within the project vicinity (Appendix E). Other species from the nine-quadrangle search that have limited distributions that do not include the subject area and/or are restricted to higher elevations in the Santa Lucia Range, immediate coastline and beaches, and areas north of Cuesta Grade were considered to be outside of the project vicinity. Based upon our knowledge of the local area and other sources of species occurrence records (particularly observations recorded in Calflora [2020] and The Cornell Lab of Ornithology [2020a]), we included additional special-status biological resources that have been documented in the project vicinity.

For the list of all special-status species known from the project vicinity, an evaluation of those species with potential to occur onsite was performed based upon the suitability of habitat conditions on the property, and the local distribution (geographical and elevational ranges) and specific requirements (plant communities and soils) of the species considered. Definitive surveys for the presence or absence of special-status animal species were not conducted. We relied on existing information and known occurrence records in the region, coupled with our site-specific observations from other locations in the surrounding area, to make determinations for the probability of occurrence of each special-status species within the study area. Any special-status species that were observed during the site surveys are listed as "Present" in Appendix E. Those species listed as "Potential" met the following requirements: relatively recent records in the vicinity; appropriate plant community and/or soil associations onsite; and, within the elevational range and local distribution of the species. If any one of these elements was not met or considered to be marginal for the site, but the other elements were present, that species was considered "Unlikely" to occur in the study area. In situations where onsite environmental conditions were clearly inappropriate, the only records in the vicinity were very old and/or imprecise, and/or the species has a limited distribution that does not overlap the site, then those species were considered "Not Expected". For animals, if any lifestage or particular life history use (i.e., foraging) fit the requirements of the onsite conditions, even while other aspects were inappropriate for certain functions (i.e., breeding), these species were still considered to have potential to occur onsite, but the likelihood of occurring onsite along with a description of site suitability are provided in the Special-status Biological Resources Summary (Appendix E), as well as a more in-depth analysis in the text.

We determined whether potentially jurisdictional wetlands or drainages, special-status plant and animal species, sensitive natural communities, and designated critical habitat could occur on or near the site. We then evaluated the potential impacts of the proposed project on each of these biological resource issues, including the six additional impacts in CEQA Appendix G. An evaluation of significance as defined under CEQA is provided for each potential impact, and mitigation is proposed to reduce impacts to a level below the significance threshold.

2.2 Tree Inventory

An inventory of all trees or large shrubs onsite that were at least three (3) inches in diameter at breast height (DBH), which was approximately 4.5 feet above ground, was conducted during the

March and April surveys. Each tree within the property was identified to species (for ornamental plantings, to genus or the lowest level possible), assigned a unique number, and DBH was measured for each trunk or major (≥3 inch) branch that was above approximately 4.5 feet. An aluminum tag imprinted with the identifying number was affixed to the north side of the tree at approximately 4 feet above the ground using an aluminum nail. Several trees were covered in poison oak (*Toxicodendron diversilobum*), and in these areas, the tree was not tagged. The location of each tree was recorded using a Trimble Geographic Positioning System (GPS) handheld unit, Trimble Ge-XH 6000, and on average the accuracy was within two to three feet due to dense canopy coverage. Tree species, DBH of each trunk, vigor (high, medium, or low), and other observations were recorded. Species that are generally considered to be shrubs and not trees (i.e., toyon), which were less than 3 inches DBH, and other species lacking a true trunk (i.e., sago palm), were not included in the tree inventory. Points representing tree centers were mapped, and the diameter of the canopy was represented on ESRI aerial photography and provided to the project engineer to be shown on site plans.

2.3 Focused Rare Plant Surveys

Rare plant species were searched for during each of the four surveys. The surveys were focused on the special-status plant species identified with potential to occur onsite (see Section 3.6.1 and Appendix E), and was also floristic in nature in that all plants observed were recorded. Plant species were identified to a level necessary to determine rarity. The plant surveys were timed to coincide with the blooming periods of the special-status plant species determined to have potential to occur onsite, which is the time of year that plant species are in flower and typically the most readily identifiable. The methodology used during the surveys followed the guidance in *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (CDFW 2018) and *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants* (USFWS 2000). This included walking the entire study area using evenly spaced transects to observe and document all plant species observed. The extent of rare plant occurrences found were recorded and mapped using a Trimble GPS unit. A complete list of all of the plant species observed during the survey was recorded and is included as Appendix B.

3.0 RESULTS

A list of plants and animals observed during the survey is included as Appendix B. Appendix C is a plate of photographs taken during the site visit to characterize onsite conditions. Appendix D has a data table from the tree inventory. Appendix E includes a list of all special-status species, sensitive plant communities, and designated critical habitat recorded within the site vicinity, and an evaluation as to their potential presence onsite. Figure 1 is a site location map, Figure 2 shows the wetland habitats recorded in the NWI in the site vicinity, and Figure 3 is a habitat map showing the plant communities, land use types and landscape features in the study area. Figure 4 shows the locations of trees mapped during the tree inventory. Figures 5 and 6 show the locations of special-status plants and animals, respectively, within five miles of the study area. Sensitive natural communities and designated critical habitat within five miles of the study area are on Figure 7.

3.1 Existing Conditions

The study area occurs at the edge of dense single-family residential development at the northern limits of the City, around CalPoly and commercial centers at the corner of Highway 1 (Santa Rosa Street) and Foothill Boulevard. The neighborhoods south of the property were developed prior to 1965, and the subject property has remained as the only larger lot in the area on the edge of town.

The neighborhoods lie between the study area and open space at Bishop's Peak and Cerro San Luis Obispo. Highway 1 to the east has a concrete divider and is a barrier to the movement of wildlife species in a general south to north direction.

The property has an existing single-family residence with a surrounding landscaped yard, sheds, outbuildings, and paved driveway to Stanford Drive. The site is encircled by vinyl split-rail fencing, which also subdivides sections of the property that are not developed for the residence into paddocks for horse grazing. Horses are rotated through the paddocks and then are off-site seasonally. In the western portion of the property, an unnamed drainage, shown as Twin Ridge Creek on project plans, runs from north to south, and is lined with riparian habitat mixed with ornamental species. Additional information about the drainage is provided in Section 3.2 below. A prominent feature of the property is landscaped areas and ornamental plantings along fence lines, which represent a diversity of horticultural specimens. Many of these areas are dominated by mature trees and shrubs that provide structure and food resources (i.e., berries and fruit) for wildlife species that inhabit suburban or edge environments, as well as vegetative screening from the surrounding urban area. Shrub species native to the region, but not occurring as native species on the site, were incorporated into ornamental plantings. Ornamental species had also escaped landscaped areas and had propagated throughout the site, particularly within the riparian habitat.

Elevations on the property range from 287 to 333 feet (87 to 101 meters) above mean sea level. The highest point is in the northeast corner, and the relatively level site slopes slightly to the south toward a swale offsite along the southern boundary, and to the west to an unnamed drainage. Another gentle swale in the western portion of the site joins the unnamed drainage in the southwestern corner of the site, at the lowest site elevation. Observations of the soils in the field were of dark, loamy clays with deep soil cracks. Additional information about the soils onsite is provided in Section 3.3 below.

3.2 Hydrologic Features, Wetlands and Riparian Habitats

An unnamed drainage traverses the site from the north to the south through the western portion of the study area, and is shown as an intermittent stream on the San Luis Obispo topographic quadrangle. It is known locally as Twin Ridge Creek. One branch originates 0.2 mile north of the site within the CalPoly grazing lands, and it's headwaters reach originates in the Ferrini Ranch Open Space and passes through development along northern Patricia Drive before entering an underground culvert northwest of the property. Downstream from the property it joins other intermittent drainages on the east side of Bishop Peak and Cerro San Luis Obispo within the urban area, flowing into "Old Garden Creek" which is shown on some maps but is not named on the USGS quadrangle, then converges with Stenner Creek just upstream of Highway 101 near the Broad Street interchange. Stenner Creek joins San Luis Obispo Creek on the opposite side of Highway 101 near the Marsh Street exit. San Luis Obispo Creek flows southwest parallel to Highway 101, and bends sharply to the west at Avila Beach Drive. It becomes a tidally influenced lagoon in its lower reaches, and flows into the Pacific Ocean at San Luis Obispo Bay in Avila Beach.

Within the study area, the drainage had a defined bed and bank and a small pool of water (<6-inches deep) was present during the March 4th site visit at the northern property boundary. On March 28th, there was a small amount of water flowing continuously through the property as a result of late season storm activity. Throughout most of its length onsite, the creek channel was lined by dense riparian habitat (described in Section 3.4.3 below). In openings in the tree canopy where several small farm road crossings were present, herbaceous wetland plant species were observed. A gentle swale was present in the riparian zone in the western portion of the property,

which leads into the unnamed drainage in the southwest corner. It was surrounded by riparian vegetation but no herbaceous wetland plants or flowing water were observed in this area. The creek corridor is depicted as a Freshwater Forested/Scrub Wetland in the NWI (Figure 2). No wetland or riparian plant species are present along the property's southern border, to the east of the existing driveway, where it slopes down into a constructed channel offsite in the neighborhood area.

A small, concrete-lined koi pond was present in the pool area within the developed area north of the residence. Otherwise, no ponds or areas of temporary ponded water were observed during the surveys, and none are expected to occur due to lack of topographic depressions with suitable soil conditions that could support standing water.

3.3 Soils

Two soil types are present in the study area — Los Osos-Diablo complex, 9 to 15 percent slopes and Cropley Clay, 2 to 9 percent slopes, MLRA 4 (NRCS 2020). The entire eastern 75% of the property is the Los Osos-Diablo complex, which is a loamy soil that is a residuum weathered from sandstone and shale. It is a well-drained soil that does not experience flooding or ponding, and is not considered to be a hydric soil (NRCS 2020). Cropley Clay occurs in the southwestern 25% of the property, and is a clay soil that is an alluvium derived from calcareous shale. It is moderately well-drained and is not considered to be a hydric soil (NRCS 2020)

3.4 Habitat Types

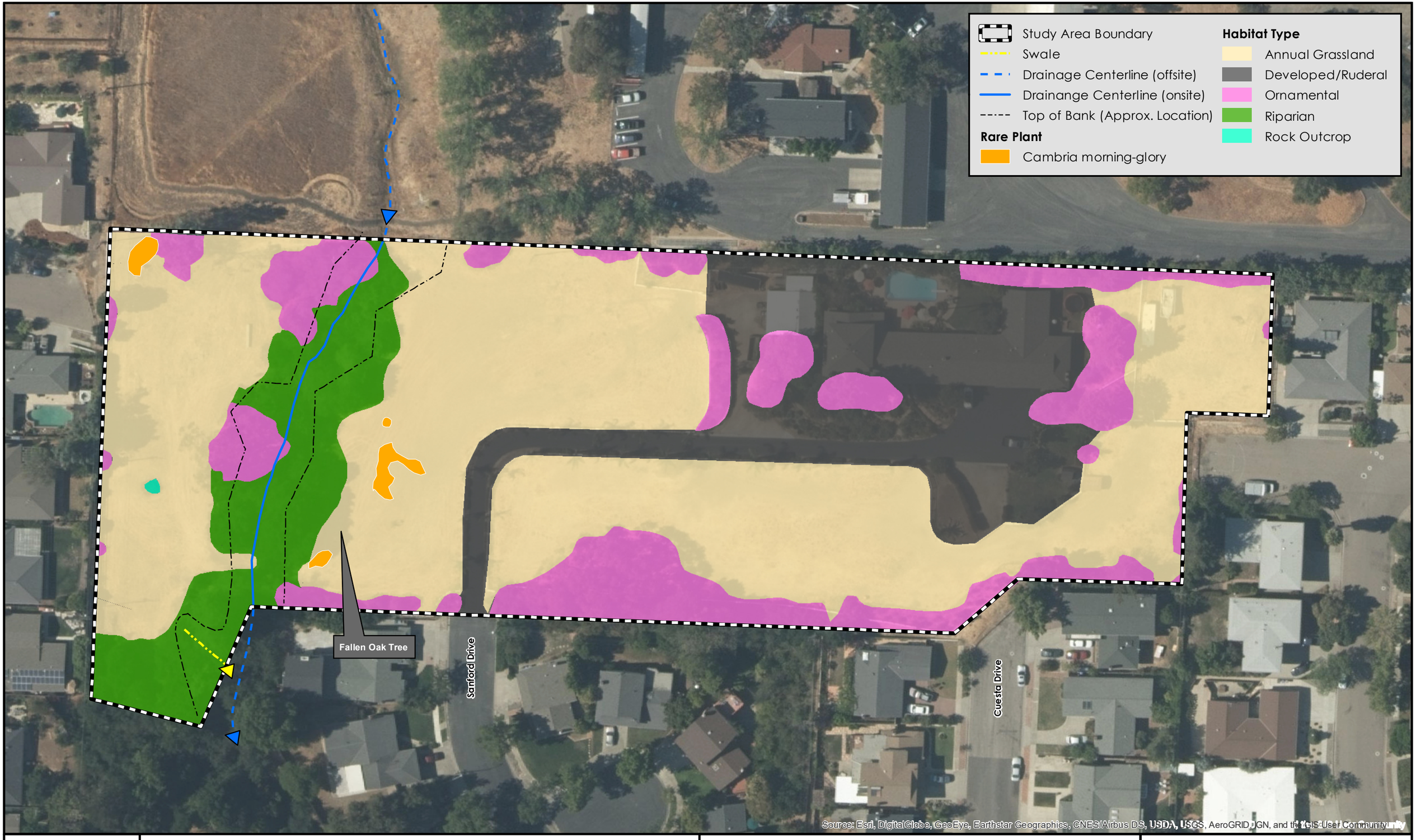
Five plant communities and land use types were identified within the study area, and include: 1) Ornamental; 2) Developed/Ruderal; 3) Riparian; 4) Annual Grassland; and, 5) Rock Outcrop. A description of these habitat types is given below and the areas occupied by these habitat types is shown in Figure 3. Representative photographs of these habitat types are provided in Appendix C.

3.4.1 Ornamental

Various ornamental shrubs and trees have been planted along the property boundary and in areas near the residence. A large and diverse number of species are present (Appendix B), and some of the dominants include olive (*Oleo europaea*), Peruvian peppertree (*Schinus molle*), eucalyptus (*Eucalyptus* sp.) and various fruit trees. The non-native, ornamental species intermix with native species such as young coast live oaks (*Quercus agrifolia*), lemonade berry (*Rhus integrifolia*), blueblossum ceanothus (*Ceanothus thyrsiflorus*), coyote brush (*Baccharis pilularis*), California coffeeberry (*Frangula californica*) and toyon (*Heteromeles arbutifolia*), which most were planted to create a vegetation barrier adjacent to surrounding development. Two very large coast redwoods (*Sequoia sempervirens*) towered over the residence, and appear to have been planted at the time the house was constructed. The ornamental habitat type was considered to be different from landscaped areas within Developed habitat in that the planted species were large in stature and had become somewhat naturalized, and provided higher quality wildlife habitat compared to the surrounding landscaping that was included in the Developed land use category. Ornamental is not a native plant community, and is classified as an Urban habitat within the CWHR System (CDFW 2020d).

3.4.2 Developed/Ruderal

Developed/Ruderal areas onsite consist of the existing residence, driveway, paving, sheds, lawn, pool, ornamental pond, parking areas, and intensively landscaped areas (Figure 3). The landscaped



KEVIN MERK ASSOCIATES

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S

0 100 200 Feet

468 Westmont Avenue, San Luis Obispo

Alice Jo Meinhold Survivors Trust

Figure 3

Habitat Map

areas incorporated a high diversity of horticultural species (see Appendix B). Planting beds incorporated succulents, rocks, Australian tree fern (*Cyathea cooperii*) and sago palm (*Cycas revoluta*). Various fruit trees and other edible varieties included citrus, persimmons (*Diospyros* sp.), apple (*Malus domestica*), rosemary (*Rosmarinus officinalis*), olive and pomegranate (*Punica granatum*). The driveway was lined with mature queen palms (*Syagrus romanzoffiana*). Shrubs included boxwood (*Buxus* sp.), juniper (*Juniperus* sp.), cheesewood and many flowering varieties. Creeping vines were represented by greater periwinkle (*Vinca major*), English ivy (*Hedera helix*), and Japanese honeysuckle (*Lonicera japonica*). Ruderal areas consisted of disturbed areas with mostly bare ground, such as an unpaved parking area and old horseshoe pit. Developed/Ruderal areas are an anthropogenic land use type and are not a natural community. They are classified as an Urban habitat within the CWHR System (CDFW 2020d).

3.4.3 Riparian

A band of Riparian forest was present along the unnamed drainage and the lower portion of the swale in the western portion of the property. This community was dominated by coast live oak, and contained red willow (*Salix laevigata*) and arroyo willow (*S. lasiolepis*), as well as other native species that were planted or had spread naturally, such as toyon, California bay (*Umbellularia californica*), and what appeared to be interior live oak (*Quercus wislizenii*) or a potential hybrid. There were also a variety of non-native ornamental species that were intentionally planted, such as blue gum (*Eucalyptus globulus*), silver wattle (*Acacia dealbata*), firethorn (*Pyracantha* sp.), coast redwood, and English ivy. Native species in the understory included poison oak, coyote brush, and a young multi-stemmed southern California black walnut (*Juglans californica*). The understory was very dense with a high number of fallen, dead branches and woody debris. At the northern end of the riparian habitat outside of the canopy, and within an old crossing of the drainage channel in the southern part of the property, the channel had herbaceous wetland plant species. The two areas dominated by these species were small in size and thus were included in the Riparian habitat type as understory species, instead of being classified as a separate habitat type. Wetland species observed in these openings in the Riparian included common spikerush (*Eleocharis macrostachya*), brown-headed rush (*Juncus phaeocephalus*), tall flatsedge (*Cyperus eragrostis*) and curly dock (*Rumex crispus*). This habitat type corresponds to the Central Coast Live Oak Riparian Forest community described by Holland (1986) and the *Quercus agrifolia/Salix lasiolepis* association in VegCAMP (2020b).

3.4.4 Annual Grassland

The grassland habitat onsite has been seasonally grazed by horses, and due to a history of disturbance, was dominated by non-native grassland species. Dominant species included foxtail barley (*Hordeum murinum*), English plantain (*Plantago lanceolata*), smilo grass (*Stipa miliacea*), Bermuda buttercup (*Oxalis pes-caprae*), black mustard (*Brassica nigra*), rattail sixweeks grass (*Festuca myuros*), big heron bill (*Erodium botrys*), and Italian wild rye (*Festuca perennis*). Native species were more common in the paddocks near the Riparian zone, and included California plantain (*Plantago erecta*), Cambria morning-glory (*Calystegia subacaulis* ssp. *episcopalis*), purple owl's clover (*Castilleja exserta*), and purple needlegrass (*Stipa pulchra*). The occurrences of purple needlegrass were scattered and were not considered to be of high enough density to warrant separation into a separate community. A large number of artichoke thistle (*Cynara cardunculus*) was scattered throughout the paddock farthest to the west, and surrounded by other Annual Grassland species. The Annual Grassland onsite corresponds to the Non-native Grassland community described by Holland (1986) and the Wild Oats and Annual Brome Grasslands association, which is a semi-natural alliance (CDFW 2020b).

3.4.5 Rock Outcrop

There was one small rock outcrop that protruded from the Annual Grassland habitat in the western portion of the property. It had a lemonade berry (*Rhus integrifolia*) shrub growing over it. The rock outcrop is a landscape feature, is not a plant community, and usually would be considered to be the barren habitat type under the CWHR system (CDFW 2020b) although onsite was covered by Ornamental species.

3.5 Tree Inventory

A total of 177 trees were identified during the tree surveys. A map of the locations of these trees is provided as Figure 4, and the corresponding data is included in Appendix D. A majority of the trees onsite are ornamental species that were planted as part of the landscaping. The Riparian area along the creek also had an extensive mix of non-native ornamental species.

3.6 Special-status Biological Resources

The background review revealed an exceptionally large number of special-status biological resources that have been documented within the project vicinity (Appendix E). The diversity of habitats ranging from the coastline, valleys, and mountainous areas, in addition to rare habitat types such as serpentine rock outcrops, and the concentrated effort in this area to survey for and record rare species have resulted in the large number of occurrences. The study area has less than five acres of two natural, but relatively common, habitat types that were identified as having potential to support special-status species, Annual Grassland and Riparian. The Ornamental habitat type can also support many species such as birds, due to the diversity of species planted, their density, and species that provide food sources. The site is surrounded on three sides by dense urban development, but its northern border is contiguous with undeveloped habitat that is known to support rare species (CNDDB, 2020). In addition, mobile wildlife species and plant propagules could also access the site from the larger surrounding area where there is substantial open space, including reserves and recreation areas, and CalPoly and Camp San Luis Obispo lands. The special-status biological resources with potential to occur in the study area are described below.

3.6.1 Special-status Plants

The background review determined that there was potential for special-status plant species to occur in the grassland and riparian/creek zone, as described in Appendix E. The following species were given high potential based on the presence of suitable soils and habitats:

- **California (southern) black walnut** (*Juglans californica*) — CRPR 4.2;
- **Cambria morning-glory** (*Calystegia subacaulis* ssp. *episcopalis*) — CRPR 4.2;
- **Miles' milk-vetch** (*Astragalus didymocarpus* var. *milesianus*) — CRPR 1B.2; and
- **San Luis Obispo owl's-clover** (*Castilleja densiflora* var. *obispoensis*) — CRPR 1B.2.

The suite of rare serpentine endemic species were determined to not have potential to occur onsite based on the lack of suitable soils or serpentine rock outcrops. One rock outcropping observed onsite did not exhibit signs of serpentine influence. The annual species that have been recorded near the study area (Figure 5), are associated with loam or clay soils, and were identified as potentially occurring in the Annual Grassland habitats onsite are described further below and all special status plants known to occur in the region were evaluated in the table included in Appendix E.

Study Area Boundary
Tree (Approx. Location)

Sanford Drive

Cuesta Drive

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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0 100 200 Feet

468 Westmont Avenue, San Luis Obispo

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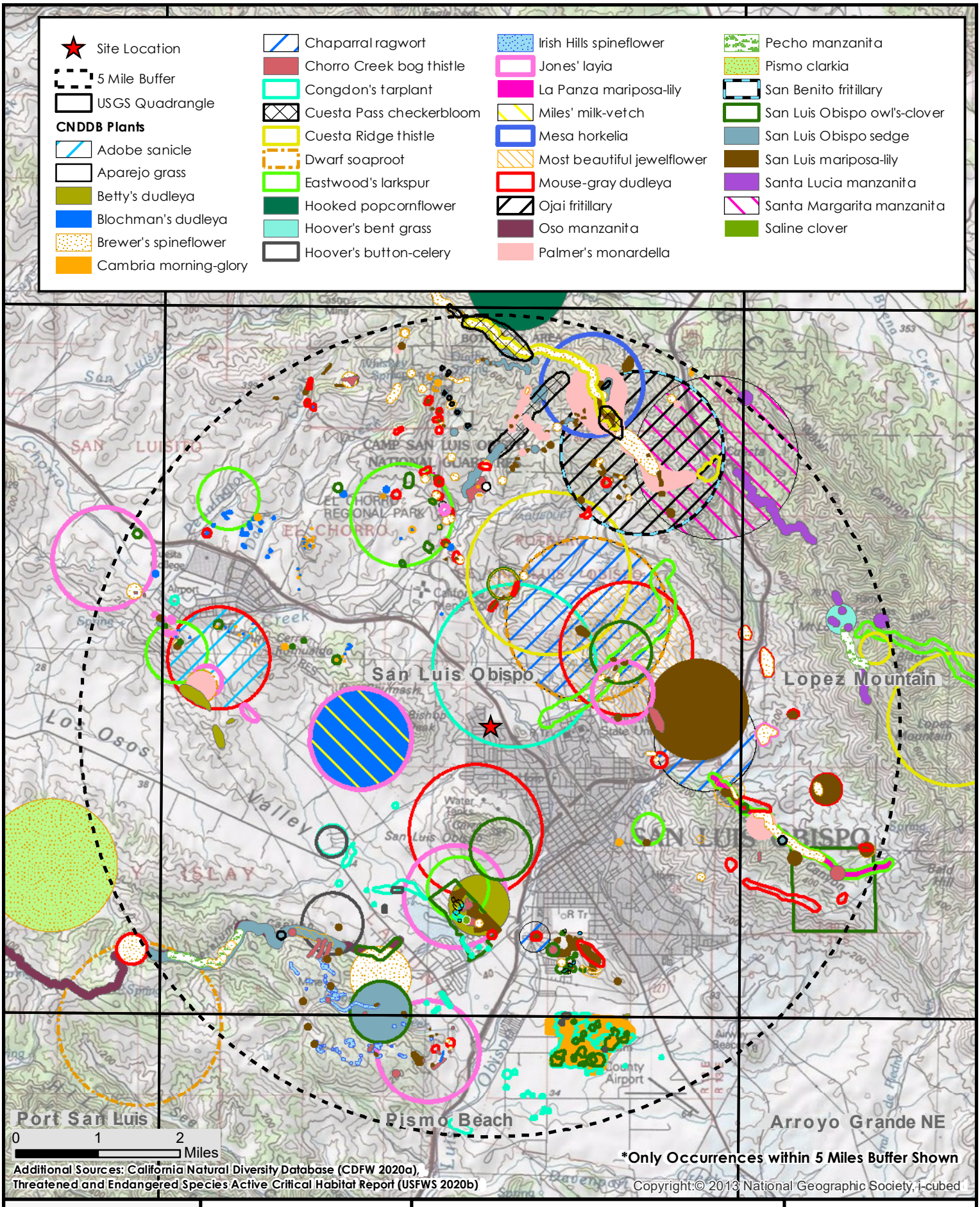
Figure 4

Tree Inventory



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N W E S 1 inch = 1.5 miles

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Figure 5

CNDDB Plants

Focused rare plant surveys were conducted within all potentially suitable habitat areas onsite in March, April and May, which is within the blooming period of special status plants identified with potential to occur onsite. Based on the findings of the survey effort, the special status species table provided in Appendix E identifies the majority of species as not expected to occur. The focused rare plant surveys determined that there are two special status plants present on the site, as follows.

Cambria morning-glory, also called San Luis Obispo County morning-glory, is a rhizomatous perennial herb in the family Convolvulaceae. It has trailing or twining stems and a cream-colored, funnel-shaped flower. This subspecies is found in chaparral, cismontane woodland, coastal prairie, and grassland habitats, and is often associated with clay soils (Calflora 2020). This species is relatively common in the San Luis Obispo area and occurs throughout grassland habitats extending north into the San Simeon area (K. Merk personal observation). It was found in Annual Grassland habitat onsite in three occurrences to the east of the unnamed drainage and in one occurrence to the west of the drainage (Figure 3). These areas had less thatch and competition from the non-native grassland species in comparison to other areas that were composed of dense that and dominated by non-native species. The occurrences supported low densities with average areal cover estimated at three (3) plants per square meter. Given the four occurrences totaled approximately 1,076 square feet or 100 square meters, an estimate of roughly 300 plants were present onsite.

Additionally, two southern California black walnut (*Juglans californica*) were found in the understory of the Riparian habitat onsite (trees 142 and 168) and an additional planted specimen was present along the western fenceline abutting neighboring residences (tree 177). It is considered to be a CRPR 4.2 species within its native range. It is a perennial deciduous tree in the family Juglandaceae that occurs along streams in riparian and southern oak woodland habitats. It has been planted extensively and used as root stock for the English walnut. This species was not recorded in the CNDDB in the vicinity, but there are other records in Calflora (2020) in creekside habitats near the site, especially along the lower reaches of San Luis Obispo Creek adjacent to Highway 101. Although this species is widely distributed throughout the Sacramento Valley, coastal mountains from Mendocino County to San Diego County, and various inland locations in southern California (Calflora 2020), it is native only to Santa Barbara County and areas to the south (CNPS 2020a). Hoover (1970) lists walnut species in San Luis Obispo County as having been introduced. It would not be considered to be a special-status species onsite because it is outside of its native range, and appears to have been planted and the two specimens in the creek likely have naturalized onsite from the historic plantings.

Similarly, Monterey pine (*Pinus radiata*) is considered to be a CRPR 1B.1 species within its native range. This species is a perennial evergreen tree in the family Pinaceae. There are only three native stands in California: Año Nuevo, Cambria, and the Monterey Peninsula (CNPS 2020a). It has been planted extensively throughout the world for use as lumber, and is also a common landscape tree in the Central Coast area. This species was observed planted in Ornamental areas onsite, and was also noted as occurring in landscaped areas in the surrounding neighborhoods.

The focused rare plant surveys conducted for this investigation were considered to be comprehensive, and covered all bloom periods of special-status plant species that could occur in the study area at this time. No further botanical surveys are recommended at this time.

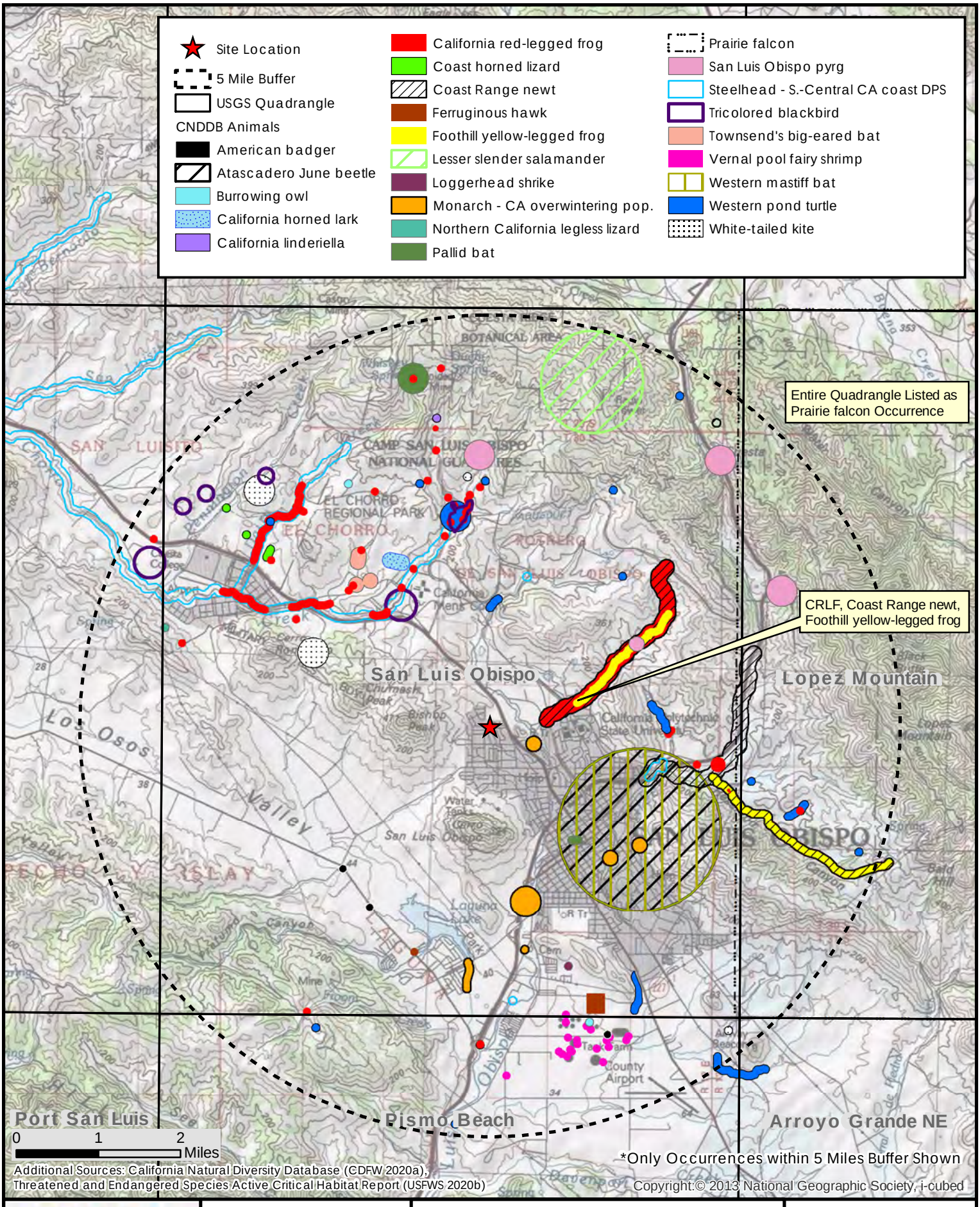
3.6.2 Special-status Animals

The CNDDB contains a moderate number of recorded occurrences of special-status wildlife species in the vicinity of the subject property. Based upon our background review of special-status species records, three invertebrate, one reptile, nineteen bird, and four mammal species were considered to have potential to occur on the property. No fish species could occur because the onsite drainage is too ephemeral to support fish, and there is insufficient aquatic habitat to support special-status amphibians that could occur in the general area. While the listing status, habitat associations and evaluation of occurrence are summarized in Appendix E, these 27 species with potential to occur are also described in further detail below. Also see Figure 6 for a map of CNDDB wildlife records within five miles of the property.

The **monarch butterfly** (*Danaus plexippus,* population 1) is considered sensitive by CDFW for overwintering colonies. This species roosts colonially during the winter in wind-protected groves of eucalyptus, Monterey pine and cypress. These colonial roost sites are occupied by large numbers of butterflies throughout the winter and the individual sites are generally reused each year. "Autumnal sites" are temporary sites used for roosting that do not persist through the winter and may not be used every year. Adults nectar on a variety of blooming plants, and could potentially occur onsite periodically while foraging or migrating. Milkweed is required as a host plant for caterpillars, and was not seen in the study area. There are several records of overwintering populations and autumnal sites from relatively small stands of trees within the urban limits of San Luis Obispo (CDFW 2020a). Individual monarch butterflies were observed flying over the site during the surveys. The density of trees in the Riparian could potentially be suitable as an overwintering or autumnal site.

The **obscure bumble bee** (*Bombus caliginosus*) does not have a specific listing status, but is considered sensitive in the CNDDB and could be a species of local concern. It is found along the California coast from Santa Barbara County northward. The host plants for this species occur in coastal scrub, riparian, and grassland habitats. Queens emerge from hibernation in late-January, workers appear in early-March, and males emerge in April. Colonies dissolve in late-October, with only the new queens surviving. Willows, coyote brush, and ceanothus were seen at the study sites and are a food source for this species. Little is known about this species in San Luis Obispo County. Most CNDDB records are from collections made from the 1940s through the mid-1970s, and the locality information from these collections mostly is imprecise.

The **San Luis Obispo pyrg** (*Pyrgulopsis taylori*) is an aquatic snail that has no specific listing but considered sensitive by the CNDDB. This species inhabits freshwater habitats, but individuals have also been observed on rocks and in leaf litter (CDFW 2020a). This species has been recorded nearby in Brizziolari and Chorro creeks (CDFW 2020a). Potentially suitable habitat may be present in the onsite drainage.



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N W E S 1 inch = 1.5 miles

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Figure 6

CNDDB Animals

The **northern California legless lizard** (*Anniella pulchra*) is a CDFW Species of Special Concern. This species occurs in a variety of habitats as long as there is soil moisture and cover, including beach dunes, chaparral, pine forest, oak woodland, riparian forest and scrub, coastal scrub and landscaped areas near residences (California Herps 2020). This species is fossorial and buries into loose soils, leaf litter, or is associated with cover objects that provide moisture (i.e., rocks, boards, and logs). They forage just beneath the surface of loose soil or in leaf litter during the morning or evening, and may be active above the surface at dusk or at night (California Herps 2020). Their peak activity near the surface is from February through May (Yasuda 2012). There are several records from the general vicinity, but only one record nearby, from Camp San Luis Obispo in 1998 (CDFW 2020a). Because they are fossorial and found near the surface during a limited time seasonally, this species is often under-reported even when common. Suitable habitat is present in the Riparian and lesser so in the Ornamental habitats onsite, where there is abundant leaf litter or other ground cover, but the clay soils may be unsuitable.

The **bald eagle** (*Haliaeetus leucocephalus*) is a state Endangered species for nesting and wintering habitats and is a CDFW Fully Protected species. Their primary prey is fish, but they also feed on small mammals, amphibians, reptiles and carrion (The Cornell Lab of Ornithology 2020b). They are usually in close proximity to large bodies of water, rivers or flooded fields with large trees or other perches nearby (CDFW 2020d). They roost communally in winter in dense conifer stands away from human disturbance. Nests in large trees in stands with moderately low canopy within 1 mile of water (CDFW 2020d). There are numerous observations of this species from various locations surrounding the study area, and sightings are common along the coast and inland reservoirs (The Cornell Lab of Ornithology 2020a). Because they are relatively common year-round in this area, individuals may fly over the site and could perch or temporarily roost on the large trees. They are unlikely to nest or communally roost due to the urban environment surrounding the site and the distance from water.

The **burrowing owl** (*Athene cunicularia*) is listed by CDFW as a Species of Special Concern for burrowing sites and some wintering sites. It forages in grasslands and nests in burrows constructed by other species (typically ground squirrel) within grassland habitat. This species prefers areas with low vegetation and small hills that provide a vantage point of the surrounding area. Coastal and Salinas Valley populations in San Luis Obispo County are considered to no longer breed in this area, but they occur infrequently during the winter (Wilkerson and Siegel 2010). The species has been recorded at Camp San Luis Obispo (CDFW 2020a), CalPoly, and several other locations along Hwy. 1 (The Cornell Lab of Ornithology 2020a). Records of this species from around San Luis Obispo are from October through the end of March (The Cornell Lab of Ornithology 2020a). Potentially suitable foraging habitat is present in grassland areas onsite. A small colony of California ground squirrel burrows that could be used by owls was observed onsite. This species is not expected to nest onsite but could occur as an uncommon transient moving through the area during the winter.

The **California horned lark** (*Eremophila alpestris actia*) is on the CDFW Watch List. It occurs in open habitats such as agricultural areas and grassland, and prefers areas with sparse vegetation or patches of bare ground. Nests are placed on the ground in open areas, sparse vegetation, or next to a grass clump or other object (Audubon 2020). This species has been recorded on Camp San Luis Obispo (CDFW 2020a), and there are several observations from the general area near the property (The Cornell Lab of Ornithology 2020a). Therefore, this species could occur within Annual Grassland habitats onsite on a regular or transitory basis and could nest onsite.

Cooper's hawk (*Accipiter cooperii*) is on the CDFW Watch List for nesting. This is a woodland species that prefers dense stands of coast live oak, riparian forest, and mixed coniferous forests near a source of water. They prey on birds, small mammals, reptiles and amphibians. They have been documented in numerous locations at CalPoly, on the east side of Bishop Peak, and throughout the residential areas surrounding the site (The Cornell Lab of Ornithology 2020a). The dense Riparian and Ornamental habitats onsite would be suitable for foraging and nesting.

The **ferruginous hawk** (*Buteo regalis*) is on the CDFW Watch List for wintering sites, and it occurs in this area during the winter. They use lower elevation open grassland habitats, and also occur in sagebrush, desert scrub, and edges of pinyon-juniper (CDFW 2020d). Roosting is in open areas on a lone tree or utility pole. They prey on rabbits, ground squirrels, mice, amphibians and reptiles (CDFW 2020d). There are several observations from open grassland habitats surrounding the site, such as at CalPoly, along Highway 1, and O'Connor Way (The Cornell Lab of Ornithology 2020a), and wintering has been documented nearby (CDFW 2020a). Individuals could forage periodically onsite in the Annual Grassland habitat and perch or roost in the Riparian or Ornamental habitats, but they do not nest in this area. They could potentially use the site for wintering.

The **golden eagle** (*Aquila chrysaetos*) is considered a Fully Protected species by CDFW and is on the Watch List for nesting and wintering. Nesting is on cliffs, large trees or other structures such as electrical towers. There are numerous records from Heritage Ranch and along the Salinas River (The Cornell Lab of Ornithology 2020a). This species forages over a variety of open habitats, and could forage in Annual Grassland or fly over the site. Large eucalyptus and coast redwood trees may have sufficient structure for nesting, but due to the proximity of human activity, they are unlikely to nest on the property.

The **grasshopper sparrow** (*Ammodramus savannarum*) is a CDFW Species of Special Concern that occurs almost exclusively in grassland habitats. Other types of open habitats with patches of bare ground and little shrub cover, such as pastures and agricultural fields, may also be used (The Cornell Lab of Ornithology 2020b). They nest on the ground at the base of clumps of grass. The prey on grasshoppers and other invertebrates, where there are patches of bare ground (The Cornell Lab of Ornithology 2020b). This species has been recorded at numerous locations surrounding the site (The Cornell Lab of Ornithology 2020a). Suitable habitat is present in Annual Grassland onsite, and the species could occur year-round foraging and nesting.

The **great blue heron** (*Ardea herodias*) does not have a specific listing status but is considered a sensitive species by CDFW for nesting colonies, which are located in forests near bodies of water. This species is associated with wetland habitats, but it is occasionally seen foraging in grasslands or agricultural fields away from water. Nesting colonies are near aquatic habitats, where they nest mainly in large trees. There are numerous observations of great blue herons from nearby CalPoly agricultural lands as well as urban areas within the city (The Cornell Lab of Ornithology 2020a). Individuals could occur onsite periodically while foraging, but nesting colonies would not utilize the site due to the distance from any lakes, ponds or wetlands. Appropriate aquatic habitat for nesting colonies is not present in or near the study area.

The **great egret** (*Ardea alba*) does not have a specific listing status, but is considered sensitive by the CNDDB for nesting colonies. This species does not nest in this area. Individuals forage in aquatic habitats, including freshwater and saline emergent wetlands, estuaries, lakes, streams, ditches, and mudflats, where they prey on fish and crustaceans. They also forage in fields on small mammals, amphibians and reptiles. They roost communally in trees near foraging areas (CDFW 2020d). This species has been recorded at numerous locations close to the site, including parks and

other patches of habitat within urban San Luis Obispo (The Cornell Lab of Ornithology 2020a). There is a chance that transient individuals could forage periodically onsite in the Annual Grassland habitat, but there is insufficient aquatic habitat to support communal roosting of this species. No nesting would occur.

The **loggerhead shrike** (*Lanius ludovicianus*) is a CDFW Species of Special Concern for nesting. This species occurs in variety of relatively open habitats with low vegetation and well-spaced shrubs or trees, such as coastal scrub, grasslands, agricultural fields, pastures, riparian areas, desert scrub, savannas, prairies, golf courses, and along roadsides. They prefer areas where there are objects to perch on such as fences, trees or shrubs (Audubon 2020). Nests are placed in dense and sometimes thorny trees or shrubs and brush piles (Audubon 2020). They prey on insects, amphibians, reptiles and small mammals, and may impale their prey on sharp objects. There are observations of this species near the study area at CalPoly, within urban San Luis Obispo, and at Camp San Luis (The Cornell Lab of Ornithology 2020a). Suitable foraging habitat is present throughout the Annual Grassland, Riparian and Ornamental habitats for this species. They could build nests in the dense shrubby Ornamental or Riparian areas.

The **merlin** (*Falco columbarius*) is on the CDFW Watch List for wintering. They are a small falcon that preys on songbirds and shorebirds (The Cornell Lab of Ornithology 2020b), and also small mammals and insects (CDFW 2020d). They occur in this area in winter, when they occupy coastal areas, grasslands, savannahs, woodlands, lakes, wetlands, and edges of coniferous forest (CDFW 2020d). They have been recorded on CalPoly and in downtown San Luis Obispo (The Cornell Lab of Ornithology 2020a). They could forage onsite in the Annual Grassland habitat or occur as a transient, but they do not nest in this area.

The **northern harrier** (*Circus cyaneus*) is a CDFW Species of Special Concern for nesting. This species prefers wide open country with wetlands but they also occur in rolling grasslands or desert shrubland. Nests are placed on the ground in dense clumps of vegetation, usually in marshes, but occasionally they nest in dry open fields (Audubon 2020). There are numerous observations from the surrounding area, including CalPoly, urban areas in San Luis Obispo, and Laguna Lake (The Cornell Lab of Ornithology 2020a). They could occur onsite occasionally while foraging or flying over, but are unlikely to nest in the study area due to the urban environment surrounding the site.

The **prairie falcon** (*Falco mexicanus*) is on the CDFW Watch List for nesting. This species forages in open grasslands, scrublands, and agricultural areas including feed lots. Nesting habitat is generally rock formations and large trees, but they also occur in urban areas and nest high on buildings. This species has been recorded at several locations on CalPoly and around the edge of the San Luis Obispo urban area (The Cornell Lab of Ornithology 2020a). They could forage in the Annual Grassland habitat, and potentially could nest in the tall eucalyptus or coast redwoods.

The **sharp-shinned hawk** (*Accipiter striatus*) is on the CDFW Watch List for nesting. This species generally occurs in densely forested coniferous forests, mixed woodlands and riparian habitats, and dense forest is required for nesting. During migration, it uses coastlines, lake shores and mountain ridges (Audubon 2020). It does not breed in San Luis Obispo County. There are numerous observations of this species from surrounding the site, including three records from the adjacent neighborhood, CalPoly and urban San Luis Obispo (The Cornell Lab of Ornithology 2020a). This species could occur onsite during migration and could periodically forage onsite, but does not nest in this area. The Riparian and Ornamental areas onsite are suitable for foraging.

The **snowy egret** (*Egretta thula*) is considered sensitive by the CNDDB for nesting colonies, but does not have a specific listing status. This species does not nest in the county. They occur in inland portions of the county during migration, in which they can be found in wetlands, ponds, rivers, irrigation ditches and agricultural fields. Along the coast they remain longer into the year, occurring in estuaries, and coastal freshwater and saline wetlands. They feed along shallow margins on fish, crustaceans, insects, amphibians, reptiles, worms, snails and small mammals. They roost in dense emergent wetland vegetation and trees near water (CDFW 2020d). . There are only a few records nearby at CalPoly, but they are more commonly reported near wetland habitats nearby such as Laguna Lake and western Foothill Road (The Cornell Lab of Ornithology 2020a). This species could forage in winter in the Annual Grassland onsite, but would not nest in this area.

The **tricolored blackbird** (*Agelaius tricolor*) is a state Threatened species and a CDFW Species of Special Concern for nesting colonies. This species nests and roosts colonially in freshwater marshes with dense tules, cattails, or blackberry thickets. They forage in areas with low-growing vegetation such as agricultural fields, grasslands and feedlots. Wintering tricolored blackbirds congregate in large multispecies flocks, often containing red-winged blackbirds (The Tricolored Blackbird Working Group 2007). Nesting colonies have been recorded at several ponds along Highway 1 (CDFW 2020a), and there are numerous observations on CalPoly agricultural lands (The Cornell Lab of Ornithology 2020a) near the site. No suitable water sources are present onsite for breeding habitat, but individuals may forage periodically within the Annual Grassland or occur as transients.

The **white-tailed kite** (*Elanus leucurus*) is a CDFW Fully Protected species for nesting sites. This species prefers open areas for foraging, including grasslands, river valleys, oak savanna, agricultural areas, deserts, and marshes (Audubon 2020). They nest in large isolated trees, and occasionally in riparian habitats (CDFW 2020d). During the non-breeding season, they roost communally in trees or tall shrubs at the edges of grasslands (The Cornell Lab of Ornithology 2020b). This species has been recorded at several locations close to the property on CalPoly agricultural lands, as well as the urban area of San Luis Obispo (The Cornell Lab of Ornithology 2020a). They could forage in the Annual Grassland habitat, and roost or nest in the Riparian or Ornamental habitats onsite.

The **yellow-billed magpie** is endemic to California (i.e., its range is limited to California), and it is a non-migratory, permanent resident. It inhabits open oak woodland and savannah, riparian, and valley hardwood-conifer. It also occurs in human-modified habitats such as residential and agricultural areas, pastures and orchards. Feed on the ground on insects, invertebrates, trash, carrion, acorns, fruit, grain, nestlings, eggs, earthworms, ticks and live rodents (CDFW 2020d). They nest in small colonies, building stick nests at the tops of trees (Audubon 2020). Shortly before sunset, magpies aggregate and move to a communal roost site in which they spend the night. Nesting and communal roost sites are considered sensitive by CDFW (2019). Individuals have been recorded at several locations near the study area, including CalPoly, Camp San Luis and parks in urban San Luis Obispo, but no communal roosts are documented in this area (The Cornell Lab of Ornithology 2020a). They are generally more common north of Cuesta Grade, but do extend along the coast and have frequently been sighted in Morro Bay. All of the habitat types onsite are suitable for this species, and they could occur as transients or regular visitors, foraging and perching on trees.

The **yellow warbler** (*Setophaga petechia*) is a CDFW Species of Special Concern for nesting. In California, this species breeds along coastal areas from Del Norte County south to Ventura County, where it prefers medium-density riparian woodlands (CDFW 2020d). This is a migratory species

that occurs in this area only during the breeding season. This species is closely tied to riparian habitat for foraging and nesting, but they also use residential areas and orchards. There are several records of this species from along San Luis Creek in downtown, Cal Poly, Camp San Luis and at a residence in the neighborhood surrounding the site (The Cornell Lab of Ornithology 2020a). The Riparian and Ornamental trees and shrubs onsite are suitable for this species, and they could forage or nest onsite.

The **pallid bat** (*Antrozous pallidus*) is a CDFW Species of Special Concern. This species forages in a variety of dry, open habitats such as grassland, deserts, woodland, shrubland and coniferous forest. Maternity and winter roosting sites are cavities or caves in rock features, large trees or buildings, and these structures must substantially moderate temperature. Day roosts are in caves, crevasses, mines and occasionally hollow trees or buildings. Night roosts are in more open areas such as porches or agricultural buildings. They forage on beetles, moths, spiders, scorpions and Jerusalem crickets (CDFW 2020d). There are records of the species from the vicinity, including Camp San Luis Obispo and the tunnel for San Luis Creek within the city (CDFW 2020a). They could forage over the site and night roost in the outbuildings or open garage. There is a slight possibility they could day roost in the large eucalyptus and/or coast redwoods.

The **San Diego desert woodrat** (*Neotoma lepida intermedia*) is a CDFW Species of Special Concern. It is present in a variety of habitats, preferring rock outcrops and rocky slopes with moderate to dense canopies. This species is found in disjunct areas throughout the state, and occurs throughout San Luis Obispo County (CDFW 2020d). They build stick houses or middens, usually against a rock crevice or the lower branches of trees, which are used for nesting, food caching and escape from predators. They eat buds, fruits, seeds, bark, leaves (CDFW 2020d). This species has been documented at Cerro San Luis Obispo (City of San Luis Obispo 2005) and on lands near Diablo Canyon Nuclear Power Plant (CDFW 2020a). Woodrat middens were observed onsite during the surveys, and could be that of the San Diego desert woodrat or the big-eared woodrat (*Neotoma macrotis macrotis*). There is only one very small rock outcrop onsite, but suitable rocky habitat is present nearby on Bishop Peak. The Riparian habitat onsite is marginally suitable because they prefer shrubland habitats. There are plentiful food resources in the Ornamental habitat.

Townsend's big-eared bat (*Corynorhinus townsendii*) is a CDFW Species of Special Concern. This species occurs in a variety of habitats, including dry upland areas, semidesert, coniferous forest, and riparian woodland. They prefer foraging along the edges of riparian vegetation and they drink water from ponds. They roost in caves, mines, abandoned buildings and under bridges (Gruver and Keinath 2006). They are considered to widespread throughout California except for high elevations in the Sierra Nevada and occur in this area throughout the year (CDFW 2020d). There are records or roost sites on Camp San Luis Obispo and along Chorro Creek (CDFW 2020a). The rocky areas of nearby Bishop Peak may also be suitable for roosting. This species could forage over the site where there is suitable Riparian bordered by Annual Grassland, but there is no suitable habitat for roosting. The outbuildings onsite would not be suitable because of frequent human disturbance.

The **western mastiff bat** (*Eumops perotis californicus*) is a CDFW Species of Special Concern. It occurs in coniferous and deciduous woodlands, coastal scrub, grasslands, chaparral, deserts and urban areas (CDFW 2020d). This species is resident year-round in the Coast Ranges, and are active nocturnally throughout the year. They roost in cliff faces, tunnels, on buildings or in trees. Maternity roosts are restricted to crevices in rock formations or buildings (CDFW 2020d). There is a record in the CNDDB from the general area of San Luis Obispo (CDFW 2020a). This species could forage over all areas of the property. They could roost in the large trees onsite or in the outbuildings or garage.

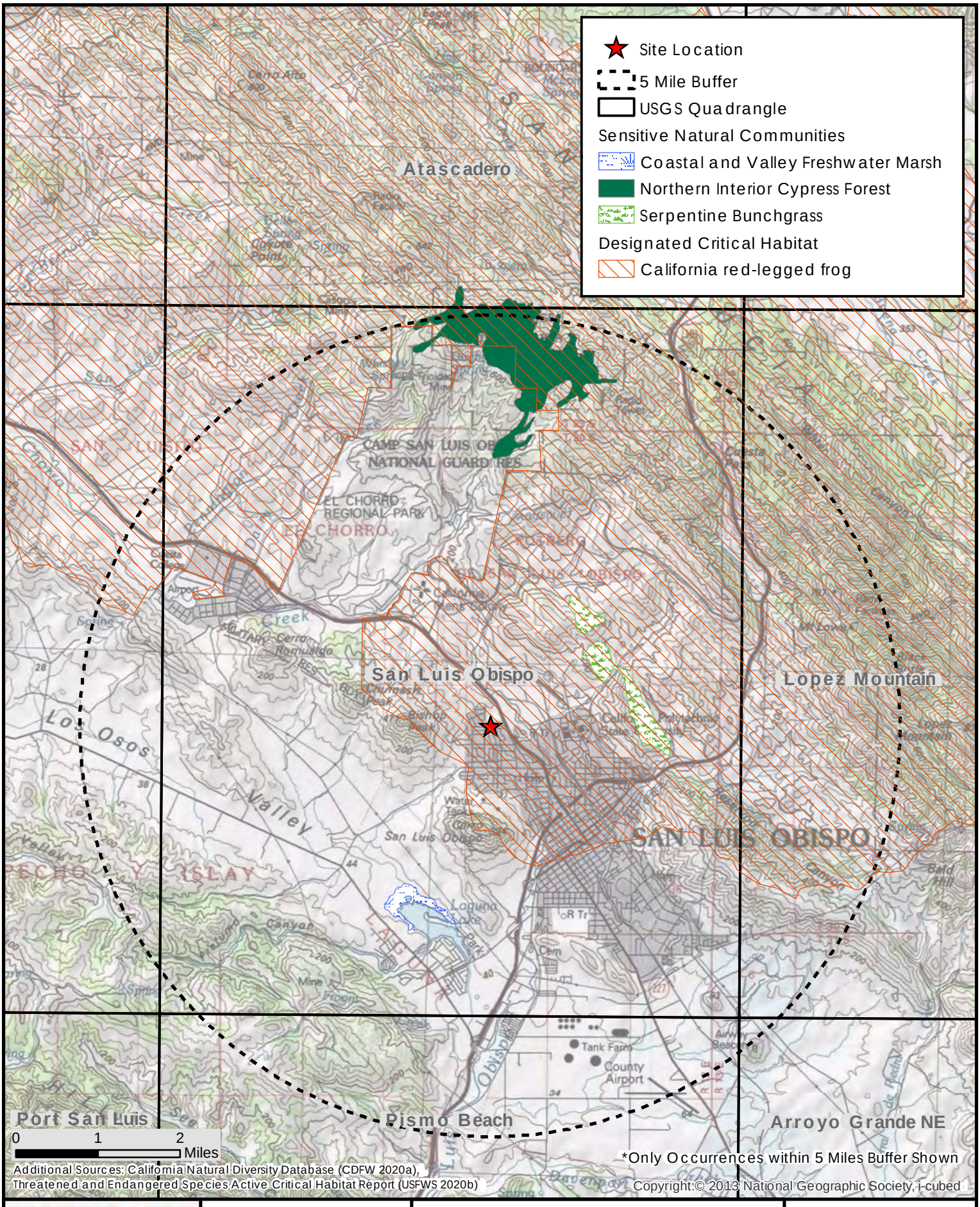
3.6.3 Sensitive Natural Communities

The Riparian habitat onsite is dominated by coast live oak with some red and arroyo willow in the downstream limits, and aligns with the Central Coast Live Oak Riparian Forest community, which has a State Rarity Rank of 3.2. Riparian habitats are also considered to be sensitive biological resources by the City and CDFW. Within several small openings within the Riparian were farm road crossings, and beyond the extent of the Riparian canopy to the north and extending offsite, the drainage has herbaceous wetland species that align with the Freshwater Seep community, which has a State Rarity Rank of S3.2. Species observed in this community included common spikerush, brown-headed rush, tall flatsedge, and curly dock, which integrated with Annual Grassland on the slopes of the drainage. A small pool of water was present along the northern property boundary, and damp soil conditions were present along the bottom of the drainage, during the March 4th survey, which was during a prolonged period without rainfall. Therefore, the source of water appears to be surfacing groundwater in the headwater areas of the drainage, instead of from recent rainfall, and this distinction is one factor that separates Freshwater Seep communities from Vernal Marsh (Appendix E). The Annual Grassland was considered to fall under the Wild Oats and Annual Brome Grasslands association, which is a semi-natural alliance and is not considered sensitive (CDFW 2020b). The low density of purple needlegrass was not considered to fall under the classification of Valley Needlegrass Grassland, as described in Section 3.4.4. Certain Rock Outcrops can be considered to be significant features of local concern, but the Rock Outcrop onsite was small in size, was not serpentinite and does not provide any significant habitat value. See Appendix E and Figure 7 for information on other sensitive natural communities known to occur in the vicinity, but that do not occur onsite.

3.6.4 Designated Critical Habitat

The study area occurs within designated critical habitat for the California red-legged frog (Figure 7). This area is Unit SLO-3 Willow and Torro Creeks to San Luis Obispo, and comprises approximately 116,517 acres (USFWS 2010). The unit occurs along the coast of central San Luis Obispo County, north of Morro Bay, and extends eastward to include the northern portion of the City of San Luis Obispo and areas east of the city. It provides connectivity within and between the inner Coast Range and the Santa Lucia Range. The unit contains features that are essential for the conservation of the species, including: 1) permanent and ephemeral aquatic breeding habitat; 2) non-breeding aquatic and riparian habitat; 3) upland habitat; and 4) dispersal habitat (USFWS 2010).

The study site does not provide suitable aquatic breeding habitat for the California red-legged frog. The onsite drainage is too ephemeral, and does not contain water of sufficient depth long enough for California red-legged frog larvae to complete metamorphosis. The stream lacks any significant pools, and is also of insufficient depth to support adult frogs, which dive into the water to escape predators and are associated with water depths of at least 2.3 feet deep (Hayes and Jennings 1989). The riparian habitat and mesic conditions along the stream corridor could potentially be used by juvenile frogs dispersing away from breeding ponds, if there were such sites adjacent to the property. Based on aerial photograph review, it does not appear that potential breeding ponds are nearby. The Annual Grassland and Ornamental habitats onsite would be considered to be suitable upland and dispersal habitats for the frog. The designated critical habitat ruling considers upland areas within 1 mile (1.6 kilometers) within suitable aquatic habitats to be essential for shelter, foraging, predator avoidance, and maintaining the environmental conditions supporting the aquatic habitat. Upland and riparian habitat within 1 mile of occupied or previously occupied aquatic sites



KEVIN MERK ASSOCIATES

N W E S

1 inch = 1.5 miles

468 Westmont Avenue, San Luis Obispo

Alice Jo Meinhold Survivors Trust

Figure 7

CNDDB Communities

is also critical for dispersal between these sites (USFWS 2010). The CNDDB contains an historic record of the California red-legged frog 0.4 mile from the study area at Brizziolari Creek, which is separated from the site by Highway 1. The next closest record to the study area is Chorro Creek at Camp San Luis Obispo, at 1.8 miles away, also on the opposite side of Highway 1. The highway would be considered to be a barrier to dispersal where there is a concrete median and high degree of traffic may otherwise prevent any successful movement. Two potentially suitable ponds are seen on aerial photography within one (1) mile of the site, on the same side of Highway 1 and with a contiguous stretch of undeveloped grassland in between. The species has not been documented from these ponds, but the potential exists for them to occur. Nevertheless, the study area does not provide linkage to any other suitable aquatic sites and is surrounded on three sides by dense urban development. Therefore, the site could be considered to have very low potential for non-breeding, upland and dispersal habitat for the frog within the designated habitat area.

3.6.5 Migratory Birds and Raptors

There are numerous bird species with potential to occur at the site that could nest in the onsite Riparian and Ornamental habitat types. In addition to the special-status bird species described above, avian species that could nest onsite also include raptors protected under California Fish and Game Code, the Bald and Golden Eagle Protection Act, and common species that are protected under the MBTA.

4.0 IMPACT ANALYSIS AND RECOMMENDED MITIGATION

The following impact analysis and recommended mitigation measures are intended to help guide project planning efforts and support the CEQA review process. The impact discussion addresses the range of impacts that could result from implementation of the proposed project. Direct effects (or impacts), as defined under CEQA, are caused by a project and occur at the same time and place. Indirect effects are caused by a project, but occur at a different time or place. Cumulative effects are those that result from when the effects of the subject project combine with effects from other unrelated projects to compound environmental harm. Our understanding of the extent of proposed development footprint, along with the observations of onsite conditions from the site visit and desktop evaluation of special-status biological resources in the project vicinity, provided the basis for this analysis. Impact statements defining potential impacts on biological resources and proposed mitigation measures to reduce project-related impacts are described.

4.1 Direct and Indirect Effects

The impact area for the proposed subdivision would occur mainly in the Developed/Ruderal and Ornamental land uses associated with an existing residence. Annual Grassland that has been grazed also occur in the development footprint. Numerous trees, as well as various shrub species, planted in landscaped and ornamental areas would be removed as shown on project plans. Non-native trees such as silver wattle and eucalyptus, along the edge of the Riparian habitat would be removed, while native oaks, willows and other riparian species would be protected. A 20-foot setback has been designated from the top of bank or outer edge of riparian, whichever is farther. Selective grading is proposed within the creek setback to create side slopes needed for the level building pads and install underground stormwater treatment and retention areas. There is also an outfall and associated rip rap pad proposed to tie in a stormwater retention area to the creek. Occurrences of a rare plant species, Cambria morning glory, would be removed, and the project plans include compensatory mitigation sites for this species within the creek setback area.

There is potential for direct effects on wildlife species during the removal of trees and other vegetation, during site grading and other construction activities, as described in Section 4.1.1 below. Potential also exists for indirect effects on the Riparian habitat onsite and habitats and associated species located downstream from the site, through surface runoff over disturbed areas during or after construction. Each of these potential effects is discussed in the sections following.

4.1.1 Adverse Effects on Candidate, Sensitive or Special-status Species

Focused rare plant surveys were conducted within the blooming period of the special-status species determined to have potential to occur onsite during the background review. One of these species, the Cambria morning-glory, was observed in four distinct occurrences onsite. Two trees, southern California black walnut and Monterey pine were also identified onsite and determined to not meet the rarity threshold since they were planted ornamental species outside their normal range. The two walnut trees observed along the creek appeared to have been young recruits from historic plantings onsite or in the immediate area. The project would result in the loss of all four morning glory occurrences totaling approximately 1,076 square feet. Although Cambria morning-glory is relatively common in the region, it is considered sensitive with a CRPR of 4.2, which is a watch list for species of limited distribution that are moderately threatened. Approximately 300 plants were located in four occurrences in Annual Grassland habitat in the western portion of the property. CDFW recommends that Rank 4 species be evaluated under CEQA, and if the species is regionally rare or unique, it must be fully analyzed in a CEQA document. The level of significance of effects is to be based on:

- The type locality of a California Rare Plant Rank 4 taxon;
- Occurrences at the periphery of a species' range;
- Areas where the taxon is especially uncommon;
- Areas where the taxon has sustained heavy losses (declining);
- Occurrences exhibiting unusual morphology or occurring on unusual substrates;
- Species maintained on Bureau of Land Management (BLM), USFWS, or U.S. Forest Service (USFS) sensitive species lists; and
- Taxa associated with a habitat that is declining in California at a significant rate (CNPS 2020b).

None of these conditions apply to this particular species within the local area because numerous records of the species were identified in the CNDDB search (Figure 5) and the site is located within the center of the species' local distribution (Calflora 2020). This species is only found in the Central Coast region, but it is a common associate of coastal grasslands from San Luis Obispo west to Los Osos and north to San Simeon. The Annual Grassland habitat in which this species was found onsite is common in the region, and the individuals onsite did not have unusual morphology. Although mitigation for this species may not be required due to the low level of local rarity, compensatory mitigation areas have been proposed on the site plans and a conceptual mitigation program is described below to maintain its presence on the subject property post-development of the proposed subdivision. No other special-status plant species evaluated in Appendix E are expected to occur on the site, and no further surveys are recommended.

There would be no measurable negative effect on wildlife habitat because the less than 5 acres of developed rural residential lands that would be lost are only marginally suitable for wildlife species and the Riparian habitat and corridor would be maintained and enhanced (as described below in Section 4.1.2). The potential for direct project effects on individuals of special-status wildlife

species varies based on the timing of the initiation of construction activities with the manner in which these species may utilize the site. Individuals of special-status species that use the site on a transitory basis and are mobile, such as foraging monarch butterflies, obscure bumble bees, birds and bats, are expected to move away from any temporary disturbance during construction activities and would not be directly affected. Similarly, birds and raptors that could temporarily roost in the trees also would not be affected because they would naturally relocate, and roosting habitat will be preserved and enhanced. Species that would only use the site for foraging and that do not breed in this area or in which suitable breeding habitat is not present would not be affected by the project include: bald eagle, ferruginous hawk, golden eagle, great blue heron, great egret, merlin, northern harrier, sharp-shinned hawk, snowy egret, tricolored blackbird and yellow-billed magpie. The San Luis Obispo pyrg, if it were present onsite, would be limited to the immediate creek corridor, and no construction would occur in this habitat Mitigation to protect the creek habitat from indirect effects of sedimentation and pollutants are described below in Mitigation Measure BIO-5. However, many of the special-status bird species listed in Appendix E could use the large trees and shrubs in the Riparian and Ornamental habitats for nesting, and others (e.g., California horned lark and grasshopper sparrow) could nest in the Annual Grassland habitat. If construction activities were initiated during the nesting season, significant effects on special-status bird species could occur. Wintering burrowing owls could occur onsite in burrows of ground squirrels and could be impacted by grading activities conducted during the winter, but are not present in this region during the summer. Individuals of less mobile species such as the northern California legless lizard and nest sites of the San Diego desert woodrat may be affected at any time of year. Bat species could roost in the non-native trees in Ornamental or Riparian areas or in the structures that would be removed, and disturbance to roost sites could be considered to be significant under CEQA. Project impacts on these species are described in further detail below and mitigation is prescribed.

Designated critical habitat for the California red-legged frog is present at the project site. No suitable aquatic habitat is present on the site, and would only represent marginal upland and dispersal habitat. However, no known populations are within 1.0 mile of the site that are not separated from it by barriers to dispersal (i.e., Highway 1 and urban development). The site would be considered to have very low potential for non-breeding, upland and dispersal habitat for the frog. Therefore, the loss of less than five (5) acres within designated critical habitat is not expected to be significant from a biological resources perspective or pursuant CEQA. This determination also considers that the Riparian corridor and the required setback will be preserved and enhanced under the project, and could potentially be used by the frog for dispersal should any populations occur nearby that have not yet been documented. The Riparian habitat would provide suitable habitat to support a dispersal corridor from one end of the site to the other. Because there would be no significant effects on California red-legged frog critical habitat, no mitigation is needed.

In addition to the special-status bird species identified with potential to nest onsite (Appendix E), other avian species protected under the MBTA and California Fish and Game Code could also be affected. If construction takes place during the nesting season, these activities could result in the mortality of eggs or young reliant on the nest, or disturbance from construction activities could potentially disrupt nesting behavior of avian species in adjacent areas. Project effects on active bird nests would potentially be significant, and mitigation is required as described below.

Impact BIO-1. Construction of the project will impact occurrences of the Cambria morning-glory. This is a significant but mitigable impact.

The proposed disturbance footprint on the subject property would impact small occurrences of

Cambria morning-glory that total 1,076 square feet (Figure 3 and project plans). Cambria morning-glory is a CRPR 4.2 species, which is a watch list, and the project will not adversely affect or jeopardize the continued existence of this species in the project area; therefore, a rigorous mitigation and monitoring program is not warranted. To ensure impacts on special-status plant species on the subject property remain below the significance threshold under CEQA, Mitigation Measures BIO-1a and -1b are required.

Mitigation Measure BIO-1a: Implement a Rare Plant Mitigation Program that ensures no net loss of Cambria morning-glory on the project site. A Rare Plant Mitigation Program shall be implemented for Cambria morning-glory, and shall be overseen by a qualified botanist approved by the City. As a component of the program, seed shall be collected from Cambria morning-glory plants during the appropriate season prior to grading activities. Using standard procedures, the qualified botanist shall clean and store the seeds until the receiving sites shown on the project plans are ready. Suitable habitat outside of the development area (as designated on the site plans in the creek setback zone) shall be designated as the mitigation site that will be maintained in a natural state and not be subject to mowing earlier than June 1st each year. The areas will be maintained as grassland habitat and no planting ornamental species or other adverse modifications will be allowed. The mitigation site shown on the project plans is twice the size as the areas currently occupied by the rare plant occurrences. This equates to a 2:1 mitigation ratio (habitat created to habitat impacted) to ensure a minimum 1:1 replacement ratio is achieved. Top soil from each of the four occurrences will be collected in six (6) inch lifts and stored for top-dressing the mitigation site once grading of the pads is complete. As needed, the mitigation site should be prepared for planting by removal of non-native species or other measures as necessary, then applying the salvaged topsoil. Once topsoil has been layered evenly through the area, collected seed should be hand-broadcasted into suitable locations by the qualified botanist and covered with compost. Seed may also be incorporated into the native erosion control seed mix described in Table 1 under Mitigation Measure BIO-5 and applied to other grassy areas of the site as part of the erosion control effort. Depending on the season when construction starts, the qualified botanist may also potentially salvage plants (i.e., dig them up when soils are moist) and transplant them to containers to be maintained until the mitigation sites are ready for planting.

Mitigation Measure BIO-1b: Conduct annual monitoring and implement adaptive management measures for five years to ensure no net loss of Cambria morning-glory onsite. The Rare Plant Mitigation Program shall include annual monitoring and maintenance of the mitigation site to ensure success of the program. Monitoring by a qualified botanist should occur during the spring growing season (between April 15 and May 15 each year) to ensure successful establishment of planted propagules. The established rare plants should be mapped to evaluate the goal of no net loss of the species onsite. The measurable objective should be to have at least 1,076 square feet of occurrence comprised of approximately 300 Cambria morning-glory plants. Appropriate vegetation sampling techniques should be used to assess the areal cover of vegetation to evaluate the status of the established occurrences. If the success criteria of having approximately 300 plants covering 1,076 square feet within the creek setback zone is not reached by the third year of monitoring, remedial actions such as collecting more seed and distributing it in suitable areas should be employed, with a corresponding additional year of monitoring. Other activities to increase the success of the rare plant mitigation effort could include non-native plant species removal within the mitigation site to reduce competition, additional seed application, or supplemental irrigation during periods of prolonged drought. The qualified botanist would prepare annual reports for the applicant detailing the methods and results of the mitigation effort and monitoring effort. The applicant would be responsible for submitting the report to the City on an

annual basis (by December 31st of each year) for the five-year monitoring period or until the final success criteria described above are met.

Implementation of these mitigation measures would reduce project effects on special-status plant species to a level below significance.

Impact Bio-2. Construction of the project could potentially impact special-status animal species. This is a significant but mitigable impact.

Burrowing owls could occupy burrows in the Annual Grassland habitat during the winter, and could be injured or killed by grading activities. Northern California legless lizards could occur in leaf litter, mulch, or under objects in the Developed and landscaped areas of the site that will be graded, and killed during initial phases of the project. They could also occur in the Riparian habitat where acacia trees will be removed, or where soils may be prepared for restoration activities. San Diego desert woodrats may occupy middens in the more densely vegetated Ornamental habitats, which will be eliminated. Bats may roost in the structures onsite or in the large trees, and may be harmed when these substrates are removed. Mitigation is required to avoid and minimize project effects on these species, and general measures are described below. None of these species are federally listed; thus, formal consultation with USFWS would not be needed. They are protected by CDFW, and if found on the site in areas that cannot be avoided, CDFW shall be consulted to refine the measures used to ensure individuals are not harmed by the work.

Mitigation Measure BIO-2a: If possible, avoid initial site grading in the winter months. The burrowing owl has been recorded in the vicinity of the project from October to the end of April. If initial vegetation removal and site grading is conducted outside of this period, potential effects on this species would be avoided and no further mitigation would be required. Restricting the time period for earth-moving activities is also recommended to avoid or minimize the potential for erosion and sedimentation (see Mitigation Measure BIO-5). If initial grading work must commence during the time period that burrowing owls may be present onsite, preconstruction surveys this species shall be included in the survey effort described in Mitigation Measure BIO-2b.

Mitigation Measure BIO-2b: Conduct a preconstruction survey and avoid construction in areas occupied by special-status wildlife species until relocated or they have left the site. Within seven days prior to the start of vegetation/tree removal, ground-disturbing activities, or demolition of existing structures, a biologist approved by the City shall survey the project impact area. A separate survey shall be conducted for any phase of the project not conducted concurrently (i.e., structure demolition conducted prior to general site grading). The biologist shall use appropriate survey techniques for the special-status species identified in this BRA as having potential to occur onsite. For example, burrows shall be examined with binoculars or wildlife cameras, and inspected for whitewash or prey remains. Leaf litter and cover objects shall be searched for northern California legless lizards. Visual surveys should be conducted for woodrat middens, both on the ground and in trees. If any are found, they should be monitored such as through the use of wildlife cameras to determine whether they are active. Potential bat roost sites shall be inspected for sign of roosting bats such as guano or prey remains. If any of these species are found onsite, the biologist shall coordinate with the City, and CDFW as appropriate, on methods to ensure the successful relocation of individuals to suitable habitat nearby. In some cases, CDFW may recommend creating structures for displaced woodrats and bats. Burrowing owls can be discouraged from using burrows onsite, or occupied burrows can be avoided until the owls have left the area. Bats can be restricted from roost sites by placing netting over their entrances after they have left the roost for night-time foraging. The wildlife protection measures to be employed will be based on the results of the

survey and the particular characteristics of their use of the site, in coordination with CDFW and the construction engineer. If no special-status animal species are found onsite during the preconstruction survey, work may proceed with the implementation of the following Mitigation Measures BIO-2c through -2e.

<u>Mitigation Measure BIO-2c:</u> *Prepare and present a Worker Environmental Awareness Program.* A qualified biologist shall prepare a Worker Environmental Awareness Program that will be presented to all project personnel. This program shall detail measures to avoid and minimize impacts on biological resources. It shall include a description of special-status species potentially occurring on the project site and their natural history; the status of the species and their protection under environmental laws and regulations; and, the penalties for take. Recommendations shall be given as to actions to avoid take should a special-status species be found on the project site. Other aspects of the training shall include a description of general measures to protect wildlife, including:

- Delineation of the allowable work area, staging areas, access points and limits to vehicle access;
- Storage of all pipes, metal tubing, or similar materials stored or stacked on the project site for one or more overnight periods shall be either securely capped before storage or thoroughly inspected for wildlife before the materials are moved, buried, capped, or otherwise used.
- Inspected of materials stored onsite, such as lumber, plywood, and rolls of silt fence, for wildlife that may have sheltered under or within the materials;
- Use of netting to exclude birds from nesting in construction materials;
- Constructing escape ramps in all excavations and trenches more than 6-inches deep;
- Contact information for the City-approved biologist and instructions should any wildlife species be detected in the work site;
- Dust suppression methods during construction activities when necessary to meet air quality standards and protect biological resources; and
- Methods for containment of food-related trash items (e.g., wrappers, cans, bottles, food scraps), small construction debris (e.g., nails, bits of metal and plastic), and other human-generated debris (e.g., cigarette butts) in animal-proof containers and removal from the site on a weekly basis.

All project personnel who have attended the training shall sign an attendance sheet. The program shall be repeated for any new crews that arrive subsequently on the site.

<u>Mitigation Measure BIO-2d</u>: *Install high-visibility construction and silt fence along the creek corridor to delineate the allowable work area, exclude wildlife from the site, and protect the stream habitat.* After the site has been cleared of all vegetation and structures that could provide refugia for wildlife, a high-visibility construction fence at least 4-foot tall together with a silt fence, or an approved wildlife exclusion fence, shall be erected along the creek corridor to delineate the limits of grading and vehicle access. If possible, the fence shall be erected along the creek setback line, but where grading is needed within the setback area to create the building pads, encroachment into the setback shall be kept at a minimum. In no case shall ground disturbance occur within the Riparian habitat or below the top of bank without obtaining proper permits from regulatory agencies (see Section 4.1.2). The type of fence used may be a combination of wildlife exclusion and silt fence (i.e., ERTEC Triple-function E-fence) or similar materials that would serve the purposes of safety/construction area delineation, wildlife exclusion, and siltation prevention. The fence shall be checked weekly by construction personnel for needed maintenance.

Mitigation Measure BIO-2e: Conduct biological monitoring for special-status wildlife species while the property is cleared and graded and structures are removed. A qualified biologist shall monitor the removal of structures, materials and vegetation that may provide cover northern California legless lizards and bat roosting sites. The biologist shall be onsite daily until all materials are removed and all vegetation has been cleared. If any special-status species are found, work shall be delayed until the individuals have left the work area or CDFW shall be notified to obtain authorization for capture and relocation. If none are found during monitoring, work may proceed.

Implementation of these mitigation measures would reduce project effects on special-status wildlife species to a level below significance.

Impact Bio-3. Construction activities could potentially directly impact nesting of special-status avian species as well as bird species protected under the Migratory Bird Treaty Act and California Fish and Game Code. This is a significant but mitigable impact.

If construction activities take place during the nesting season (February 1 to August 31), nesting behavior could be disrupted and construction disturbance could cause adults to abandon nests containing eggs or young. Nesting birds that are protected under the MBTA and special-status species could potentially nest in the Ornamental or Developed areas, and Annual Grassland habitat, within the impact area. Additionally, birds could nest in the Riparian habitat adjacent to the work area and may be in close enough proximity that construction activities may affect their behavior. To reduce potential project impacts to a level below significance, Mitigation Measures BIO-4 is required. This assumes that the seasonal restriction for the initiation of construction described under Mitigation Measure BIO-2a would be followed, which may place the activities within the nesting season. If construction commences outside of the nesting season (September 1 to January 31), no mitigation for nesting birds would be needed.

Mitigation Measure BIO-3: Conduct a preconstruction nesting bird survey and avoid active nests. A qualified biologist shall conduct a preconstruction survey for nesting birds within all areas of the property. The preconstruction survey shall be conducted within seven days before the initiation of construction activities. During this survey, the qualified biologist shall search for birds exhibiting nesting behavior and inspect all potential nest substrates in the impact and buffer areas. Any nests identified will be monitored to determine if they are active. If no active nests are found, construction may proceed. If an active nest is found within 50 feet of the construction area, the biologist, in consultation with the City, shall determine the extent of a buffer to be established around the nest. The buffer will be delineated with flagging, and no work shall take place within the buffer area until the young have left the nest, as determined by the qualified biologist.

Implementation of these mitigation measures would reduce project effects on protected nesting birds to a level below significance.

4.1.2 Adverse Effects on Riparian Habitat or Sensitive Natural Communities

The Riparian habitat onsite is considered to be classified as the Central Coast Live Oak Riparian Forest community, which has a State Rarity Rank of 3.2, and as such is considered sensitive under CEQA. There was a small area of the Freshwater Seep community, which has a State Rarity Rank of S3.2, within the limits of the Riparian habitat and was outside of the project impact area. Riparian habitats are also considered to be sensitive biological resources by the City and CDFW. The extent

of the Riparian habitat onsite has been delineated (Figure 3 and project plans), and all project activities will remain outside of this area except for the installation of a rip rap pad at the downstream end of a stormwater treatment/retention area (see Appendix A). For work in this area, a wetland delineation will be needed to determine the extent of areas under the jurisdiction of USACE under Section 404 of the Clean Water Act; RWQCB under Section 401 of the Clean Water Act and Porter-Cologne Water Quality Control Act; and, CDFW pursuant to California Fish and Game Code Sections 1600 et seq. Any work conducted in jurisdictional areas would require permitting from these agencies, as described below.

Permanent impacts have been designed to remain outside of the City-designated 20-foot creek setback, but temporary impacts would occur as a result of grading to create 3:1 slopes for the building pads. The site plans show that grading would remain outside of, but very close to, the edge of Riparian dripline. Once final grading plans are prepared, they should be evaluated to determine whether impacts may occur within the Riparian boundary, and if so, permitting would be needed from CDFW to cover trimming of riparian trees or work beyond the top of creek bank.

The project proposes to remove non-native tree species along the creek corridor, particularly acacia and eucalyptus. A component of the project's Fire Protection Plan approval calls for the removal of this non-native vegetation in the Riparian habitat to reduce fuel loads. The area in which these trees are removed and other locations within the creek setback area would be designated as a mitigation site to receive native tree planting in compensation for the removal of trees throughout other locations of the property, in compliance with the City Municipal Code for Tree Removal 12.24.090 (summarized in Section 1.2). Permitting for the drainage improvements and rip rap structure extending into the creek corridor is also likely to require compensatory mitigation, which is expected to be located along the creek corridor. A Habitat Mitigation and Monitoring Plan (HMMP) shall be prepared by a City-approved qualified botanist or restoration specialist, and submitted to the City and other agencies as a component of the permit applications. Details of the wetland delineation, permitting, and riparian compensatory mitigation effort are required to bring effects on Riparian habitat to a level below significance, and are described below.

Riparian habitat onsite as well as downstream of the project could be affected indirectly through stormwater runoff from the construction site. These indirect effects are potentially significant, but can be brought to a level below significance with implementation of measures described below.

No other sensitive communities as designated by the CDFW occur onsite. The Annual Grassland community is common in this region, and is not considered sensitive. The Rock Outcrop onsite was not composed of serpentine and did not support rare plants, nor was it of sufficient size to warrant protection as a sensitive biological resource.

Impact Bio-4. Construction of a stormwater component of the project would occur in a Riparian and/or creek bank area potentially under federal and state jurisdiction, and considered to be a sensitive resource by the City. This is a significant but mitigable impact.

The project is in the early stage of design, and the vesting tentative tract map provided for this analysis shows the rip rap pad and outlet of a stormwater treatment/retention area may extend into the creek zone that is subject to Clean Water Act and California Fish and Game Code requirements. As such, a Preliminary Delineation of Wetlands and Other Waters would need to be prepared to determine the boundaries of USACE, RWQCB and CDFW jurisdiction. If jurisdictional areas would be permanently or temporarily impacted, approval from the above-referenced agencies is required

through issuance of a Section 404 permit from the USACE, a Section 401 Water Quality Certification from the RWQCB, and/or a Lake and Streambed Alteration Agreement from the CDFW. Compensatory mitigation would be required as a condition of these permits, as well as under CEQA, at a ratio of at least 1:1. In addition, the City would also require a tree removal permit and compensatory mitigation at a 1:1 ratio for any trees removed outside the riparian habitat that are in the creek setback, and replanting would be needed onsite. The creek setback area that will be enhanced through the removal of non-native vegetation and planting of native tree and grassland species shall be included in the HMMP, and submitted with the permit applications. The mitigation site shall be protected onsite through a deed restriction or another agency approved mechanism. The following mitigation measures are required to lessen project effects to a level below significance under CEQA.

Mitigation Measure BIO-4a: Conduct a Preliminary Delineation of Wetlands and Other Waters along the unnamed drainage onsite. A delineation of potential USACE "waters of the United States," CDFW jurisdictional areas, and RWQCB "waters of the state" shall be conducted in the project's permanent and temporary impact areas to characterize the area's vegetation, soils and hydrology. The methodology detailed in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Version 2.0; USACE 2008a) shall be employed. The locations of data points and the jurisdictional boundaries shall be recorded using a Global Positioning System, and mapped on aerial photography. The delineation shall be submitted to USACE, RWQCB and CDFW in support of permit applications.

Mitigation Measure BIO-4b: Obtain necessary permits for impacts in jurisdictional areas, implement a compensatory mitigation program, and monitor the success of the program to ensure no net loss of Riparian/Wetland habitat or other waters on the subject property. Once the wetland delineation has been prepared and the design plans finalized, any impacts within jurisdictional areas shall be permitted as follows:

1. During project planning phases, the applicant shall initiate consultation with regulatory agencies prior to submitting applications to obtain a Clean Water Act Section 404 Permit from USACE, a Clean Water Act Section 401 Water Quality Certification from RWQCB, and a California Fish and Game Code Section 1602 Lake and Streambed Alteration Agreement from CDFW. As a component of the application packages, the Preliminary Delineation of Wetlands and Other Waters would be submitted along with permit application packages The applicant would be required to show the City proof of permit acquisition or a determination from each agency that a permit is not required prior to moving forward with storm drainage improvements extending into the creek corridor. Even if permitting is not required by these three agencies, compensatory mitigation would still be required under City policies and CEQA.
2. Once the development footprint within the jurisdictional area has been finalized, the impact area can be determined as needed to complete the permit applications. To compensate for impacts on Riparian habitat and the creek channel, an HMMP will be required by the agencies and City. The HMMP shall address compensatory mitigation for impacts on jurisdictional areas resulting from the construction of stormwater features, and may also include compensatory tree planting for the acacias and other species required by the City for tree removal throughout the property. The HMMP shall detail the location of the mitigation site where Riparian habitat or adjacent upland habitat will be restored or created; techniques to be used; plant species to be used and propagule source; maintenance techniques and schedule; success criteria to meet the goals of the restoration effort;

monitoring techniques and schedule for at least five years; and, remedial actions if success criteria are not met.

3. The compensatory tree planting program required by the City shall follow size specifications for each tree removed with a corresponding container size tree to be planted, as detailed in the Municipal Code 12.24.090J.
4. Prior to start of construction activities, the applicant shall retain a qualified biological monitor to ensure compliance with all Clean Water Act and CDFW permit requirements during work adjacent to the creek. The monitor shall be present during the installation of the construction fencing delineating the limits of work in relation to the edge of riparian, creek top of bank and 20-foot creek setback buffer, as described in Mitigation Measure BIO-2d. Since the Cambria morning-glory compensatory mitigation site is to be located within this buffer, the monitor shall direct appropriate wildlife exclusion and erosion control Best Management Practices (BMPs) to protect Riparian habitat during site preparation for planting. The monitor shall be present during construction of the rip rap pad and any other work within the creek setback area on stormwater structures. The monitor shall also oversee removal of non-native tree species and site preparation for tree planting within the setback.
5. Temporarily disturbed soils within the setback area shall be planted with a native seed mix as described in Table 1 below.
6. The qualified restoration ecologist will work with the applicant to implement the HMMP and conduct annual monitoring and reporting requirements until the final success criteria are attained, which is estimated to occur for a five year period.
7. The mitigation site and buffer area shall be fenced to prevent human activities and ensure the site's permanent protection.

Implementation of the above mitigation measures together with those resulting from regulatory agency permitting would reduce construction-related impacts on Riparian habitat to a less than significant level.

Impact BIO-5. Stormwater runoff from the project site could potentially result in sediment and/or pollutants entering the creek and affect riparian habitat onsite and/or downstream of the study area. This is a potentially significant but mitigable impact.

Construction of the project will involve vegetation removal, grading, and soil excavation. Disturbed soils could erode into the creek and be carried downstream eventually reaching larger waterbodies such as San Luis Obispo Creek if these areas are not stabilized and/or protected prior to significant rainfall. Sedimentation is considered to be a type of pollutant in aquatic systems because it decreases water quality through increased turbidity, fills in pools or causes lateral spread of channels, and covers instream vegetation and other aquatic life. The buildings and infrastructure are planned to be located outside a 20-foot setback from the top of bank or edge of riparian, but will have an increase of impervious surfaces that could result in pollutants from the site being carried into the drainage downstream. The project is designed to have underground and above-ground stormwater retention/treatment basins and other features to manage stormwater once constructed, and the Best Management Practices (BMPs) outlined below are designed to avoid or minimize project effects during and shortly after construction, in the short-term while the basins and other features become established with vegetation. Measures are described for the prevention of erosion, sedimentation, and toxic substances from reaching wetland and riparian habitats adjacent to the site as well as

further downstream. Toxic substances include those from construction equipment such as oil, gas, diesel, and hydraulic fluid could leak or be spilled and be carried in stormwater runoff into the creek. To reduce the chance of indirect effects on protected wetland habitats, riparian habitat, and aquatic resources in offsite drainages to a level below significance, the following mitigation measures are required.

Mitigation Measure BIO-5: Install appropriate erosion and sediment controls and revegetate graded areas. The following erosion and sedimentation control methods are required to be implemented during and after the construction phases of the project:

1. If possible, the potential for erosion and sedimentation shall be minimized by scheduling construction to occur outside of the rainy season, which is typically defined as October 15 through April 15. Adherence to this measure would also serve as avoidance for the burrowing owl, as described in Mitigation Measure BIO-2a.
2. To minimize site disturbance, all construction related equipment shall be restricted to established roads, construction areas, and other designated staging areas. The creek setback zone shall be clearly marked as described in Mitigation Measure BIO-2d.
3. A Sediment and Erosion Control Plan may be required by the City, and would be prepared by a qualified engineer. The use of silt fence, straw wattles, erosion control blankets, straw bales, sandbags, fiber rolls and other appropriate techniques should be employed to protect the drainage features on and off the property. Biotechnical approaches using native vegetation shall be used as feasible. All areas with soil disturbance shall have appropriate erosion controls and other stormwater protection BMPs installed to prevent erosion potential. All sediment and erosion control measures shall be installed per the engineer's requirements prior to the initiation of site grading if planned to occur within the rainy season.
4. Spill kits shall be maintained on the site, and a Spill Response Plan shall be in place.
5. No vehicles or equipment shall be refueled within 100 feet of wetland areas, riparian habitat and/or drainage features, and refueling areas shall have a spill containment system installed. No vehicles or construction equipment shall be stored overnight within 100 feet of these areas unless drip pans or ground covers are used. All equipment and vehicles should be checked and maintained on a daily basis to ensure proper operation and to avoid potential leaks or spills. Construction staging areas shall be located in a location where spills would not drain into aquatic habitats.
6. No concrete washout shall be conducted on the site outside of an appropriate containment system. Washing of equipment, tools, etc. should not be allowed in any location where the tainted water could enter onsite drainages.
7. The use of chemicals, fuels, lubricants, or biocides shall be in compliance with all local, state, and federal regulations. All uses of such compounds shall observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other state and federal legislation.
8. All project-related spills of hazardous materials within or adjacent to the project site should be cleaned up immediately.
9. All areas with soil disturbance shall have appropriate erosion controls and other stormwater protection BMPs installed to prevent erosion potential. Silt fencing, erosion control blankets, straw bales, sandbags, fiber rolls and/or other types of materials

prescribed on the plan shall be implemented to prevent erosion and sedimentation. Biotechnical approaches using native vegetation shall be used as feasible.

10. Areas with disturbed soils shall be restored under the direction of the project engineer in consultation with a qualified restoration ecologist as detailed above. Methods may include recontouring graded areas to blend in with existing natural contours, covering the areas with salvaged topsoil containing native seedbank from the site, and/or applying the native seed mix as described in Table 1. Native seed mix shall be applied to the graded areas in the creek setback area through either direct hand seeding or hydroseeding methods. Seeding with the native erosion control seed mix should be provided on all disturbed soil areas prior to the onset of the rainy season (by October 15).

Table 1. Native Erosion Control Seed Mix

Species	Application Rate (lbs./acre)
Bromus carinatus (California brome)	10
Stipa pulchra (purple needlegrass)	5
Trifolium wildenovii (tomcat clover)	5
Vulpia microstachys (six weeks fescue)	5
Total	**25**

4.1.3 Protected Wetlands

There were small areas of wetland vegetation within the area mapped as Riparian in Figure 3, and are outside of project impact areas. Impacts and mitigation within the Riparian area are described above in Section 4.1.2, and no additional effects are expected on the wetland areas, assuming the storm drain outfall is located upslope from the creek channel. Best Management Practices (BMPs) for Riparian habitat described above under Mitigation Measure BIO-5 would also decrease potential indirect effects of construction on wetland habitat to a level below significance.

4.1.4 Interference with Movement of Native Fish or Wildlife, Wildlife Corridors, and Wildlife Nursery Sites

The proposed project would not affect the movement of native fish because all work will be conducted outside of stream channel. Site access will be from existing roads on the west, east and south sides of the property and will not require crossing the creek channel. In addition, the reach of the drainage in the subject property is too ephemeral to support fish. No equipment or materials will enter or be placed in the channel that could affect fish downstream.

Less than five acres of developed residential and grazed Annual Grassland where the project is located is surrounded on three sides by urban development. Although the northern border of the property is contiguous with undeveloped grassland on CalPoly lands, the subject property is unlikely to be used for wildlife movement because it does not provide linkage to other suitable habitat areas. The site lies at the northern end of the urban area of the City of San Luis Obispo, and as such, there are little opportunities for wildlife should the move through the property as it exists. The creek corridor will be protected with a 20-foot setback that will be enhanced, and this area is expected to be used as a stopover point or corridor for wildlife species that are adapted somewhat to human development. Therefore, there would be no negative impacts of the project on wildlife corridors or movement.

The grazed Annual Grassland habitat in the project impact area is not expected to be a wildlife nursery site for any species. Wildlife species that could breed in the area are limited to ground-nesting birds, small mammals such as rodents, and invertebrates. These species would be dispersed throughout the abundant grassland habitat in the general area, and not focused in the study area for reproduction or other key life history stages. The Ornamental trees on the site that would be removed could be used as nesting sites for birds, and these trees will be replaced as described above in Mitigation Measure BIO-4. Until the replacement trees are established, the Riparian corridor will continue to offer opportunities for nesting birds. Ultimately, with the incorporation of the project HMMP, there would be no net loss of nesting habitat on the site. Therefore, there would be no impact of the project on wildlife nursery sites.

Because there would be no project impacts on the movement of native fish or wildlife, wildlife corridors or wildlife nursery sites, no mitigation is required.

4.1.5 Conflicts with Local Policies or Ordinances, Such as Tree Preservation

The project involves the removal of over 100 planted native and non-native species of trees that are at least 3 inches DBH. As detailed in the City's Municipal Code for Tree Removal 12.24.090, these trees are required to be replaced at a 1:1 ratio for tree planting to be conducted onsite. A tree inventory was conducted as part of this BRA to tag with a unique number, map, identify to species, measure and record the vigor of each of the trees on the property (Figure 4, Appendix D). This information is to be used in support of an application for a tree removal permit from the City. A compensatory tree planting program described above is expected to include areas within the creek setback area, and has been developed to include compensatory mitigation required for impacts in jurisdictional areas and planned non-native species removal in the riparian zone as required by the project's fire plan (Mitigation Measure BIO-4b). It is envisioned that additional tree planting will take place within the residential development to mitigate all tree removal on the site. The applicant would be required to meet the final specifications of the City's municipal code for tree protection and replacement in order to receive permit approval. Once these conditions are met, there would be no additional impacts under CEQA for tree removal.

Local policies or ordinances within the General Plan and Municipal Code that apply to this project concerning protection of riparian habitat are described in Section 4.1.2 above.

4.1.6 Conflicts with Conservation Plans

No local, regional or state conservation plans have been prepared for the area in which the project is located; therefore, there would be no conflicts with these plans and no mitigation is required.

4.2 Cumulative Effects

The proposed project is located on the edge of the urban limits of the City of San Luis Obispo, and is surrounded on three sides by dense residential development. It is currently developed for a single-family residence with a large proportion of landscaping and ornamental plantings. Annual Grassland areas have been grazed in the past by horses and are regularly used by humans. There are no natural habitats within the impact area that have not already been disturbed, and the project would not affect an intermittent creek and its adjacent Riparian habitat. Impacts to Cambria morning glory and associated mitigation requirements were described herein to reduce the impact. A Habitat Mitigation and Monitoring Plan will be developed to enhance the Riparian habitat and its

20-foot setback for impacts to the creek corridor for storm drainage improvements and to support the anticipated Clean Water Act and California Fish and Game Code permitting. Measures are described herein to prevent stormwater runoff from the site from affecting the Riparian habitat on- and off-site during and shortly after construction, and the development plan includes stormwater management techniques for the long-term. With mitigation incorporated as described above, no significant effects on biological resources are expected to occur as a result of project implementation. The loss of less than five acres of a moderately altered site at the edge of existing development would not have any significant effects on biological resources, especially considering that the Riparian habitat will be enhanced and protected. Because there would be no effects of the project in the context of the site's importance in the overall area, the project would not contribute to cumulative effects of other non-federal projects planned in the area.

5.0 CONCLUSIONS

The proposed project involves the subdivision of a single-family residential lot into 23 buildable lots. The project impact areas are highly disturbed from many years of human activities and do not contain significant biological resources. Impacts on a rare plant species and Riparian habitat would occur but are proposed to be fully mitigated. This analysis determined that the proposed project meets none of the criteria that trigger mandatory findings of significance under CEQA. With the incorporation of the mitigation measures described herein, project impacts on the six additional impacts to be considered during CEQA review will be reduced to a level below significance.

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APPENDIX A

Site Plans

KMA

468 WESTMONT AVENUE
TENTATIVE TRACT MAP
TRACT 3157
CITY OF SAN LUIS OBISPO, CALIFORNIA

OWNER/DEVELOPER:
ANDREW GARETH MEINHOLD AND TIMOTHY JAMES MEINHOLD, AS SUCCESSOR CO-TRUSTEES OF THE MEINHOLD REVOCABLE TRUST
CONTACT: JIM FLAGG
PHONE: (805) 801-8575
ADDRESS: 1950 BRIDLE RIDGE TRAIL
SAN LUIS OBISPO, CA 93405

ENGINEER/SURVEYOR:
CANNON
1050 SOUTHWOOD DRIVE
SAN LUIS OBISPO, CA 93401
ATTN: KATIE ROLLINS
PHONE: (310) 382-5133

APN:
052-496-001

SITE AREA:
4.98 ACRES

UTILITIES:
WATER: CITY OF SAN LUIS OBISPO
SEWER: CITY OF SAN LUIS OBISPO
STORM DRAINAGE: CITY OF SAN LUIS OBISPO AND PRIVATELY MAINTAINED FACILITIES
GAS: THE GAS COMPANY
ELECTRIC: PG&E
TELEPHONE: AT&T
CABLE: CHARTER

FLOOD MAPPING:
THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) PANEL 1066G FOR SAN LUIS OBISPO CITY, CALIFORNIA, DATED NOVEMBER 16, 2012, DOES NOT IDENTIFY A FLOOD ZONE FOR THE AREA COVERED BY THIS TRACT MAP.

BASIS OF BEARINGS:
THE BASIS OF BEARINGS FOR THIS SURVEY IS BETWEEN TWO CITY OF SAN LUIS OBISPO 2007 HORIZONTAL CONTROL MONUMENTS #8034 AND #8018, AS SHOWN AND CALCULATED TO BE N5°16'01"E.

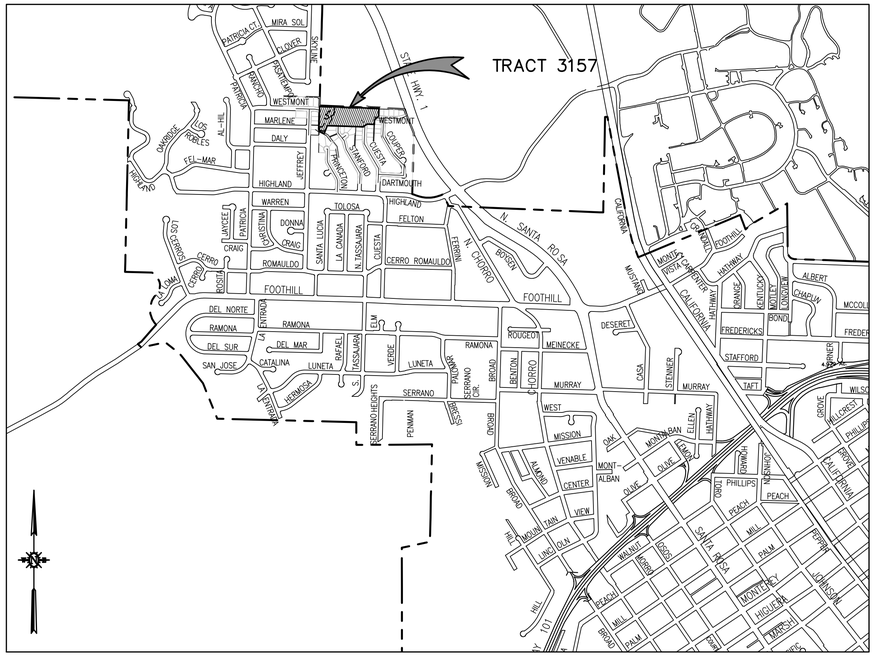
BENCHMARK/BASIS OF ELEVATION:
THE ELEVATIONS SHOWN HEREON ARE NAVD88 AS DETERMINED BY MEASUREMENTS ON POINT S-26 AS SHOWN ON THE CITY OF SAN LUIS OBISPO "BENCHMARK SYSTEM" (JUNE 2019) HAVING PUBLISHED ELEVATION OF 327.38'.

REFERENCE DOCUMENTS
CITY STANDARD SPECIFICATIONS: MAY 2018 EDITION
CITY ENGINEERING STANDARDS: MAY 2018 EDITION

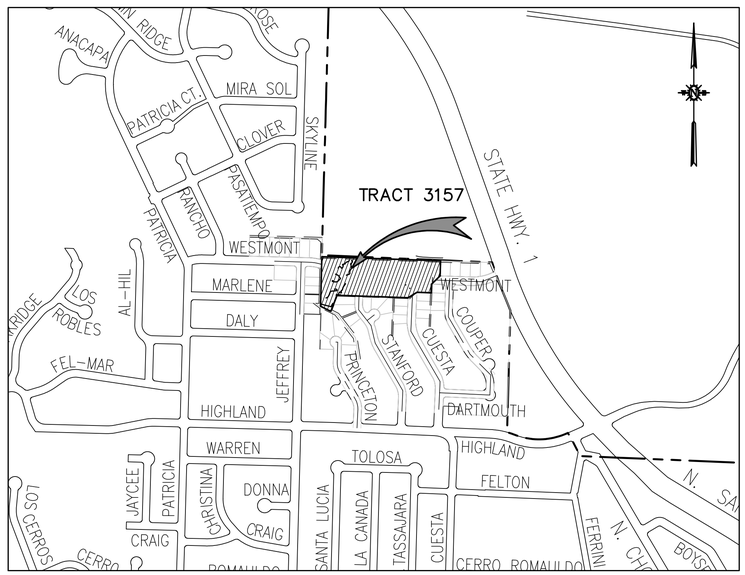
CALIFORNIA GEOTECHNICAL INVESTIGATION PROPOSED SUBDIVISION – TRACT 315468–500 WESTMONT (APN 052–496–001) SAN LUIS OBISPO BY PACIFIC COAST TESTING INC. APRIL 24, 2020.

EARTHWORK
AREA OF DISTURBANCE: 4.27 AC
SITE CUT[1]: 7,900 CY
CUT FOR CHAMBERS: 600 CY
SITE FILL[2]: 4,760 CY
SHRINKAGE OF FILL: 480 CY
NET EXPORT: 3,260 CY

NOTES:
1. EARTHWORK QUANTITIES ARE ESTIMATES ONLY. THE QUANTITY SHOWN REFLECTS THE DIFFERENCE BETWEEN EXISTING GRADE AND FINISHED GRADE OR FINISHED SURFACE FOR PRELIMINARY DESIGN.
2. ASSUMES A 10% COMPACTION OF FILL.



VICINITY MAP
1" = 2000'



PROJECT SITE
1" = 500'

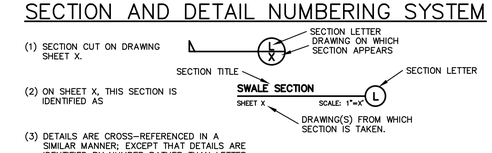
LEGEND

	EXISTING	PROPOSED
TRACT BOUNDARY		
PROPERTY LINE		
RIGHT-OF-WAY		
EASEMENT/SETBACK		
STREET CENTERLINE		
CREEK BANK		
RIPARIAN EDGE		
RIPARIAN EDGE FENCE		
FENCE		
RETAINING WALL		
GRADE BREAK		
CONTOURS		
WATER MAIN	W	W
RECLAIMED WATER MAIN	RW	RW
SANITARY SEWER LINE	S	S
STORM DRAIN LINE	SD	SD
GAS LINE	G	G
JOINT TRENCH	JT	JT
FIRE HYDRANT		
STREET LIGHT (STANDARD HEIGHT)		
STORM DRAIN INLET		
CURB INLET		
SDMH		
SSMH		
CLEANOUT		
BACKFLOW PREVENTION		

ASPHALT CONCRETE	AC
BOTTOM OF WALL	BW
CENTERLINE	CL / ℄
EASEMENT	ESMT
EXISTING GRADE	EG
EXISTING	(E)
INVERT	INV
OPEN SPACE	OS
PEDESTRIAN	PED
PROPERTY LINE	PL / ℙ
PUBLIC UTILITY EASEMENT	PUE
PUBLIC PEDESTRIAN ACCESS EASEMENT	PPAE
RECLAIMED WATER	RW
RIGHT OF WAY	ROW
SANITARY SEWER	SS
STORM DRAIN	SD
STREET TREE EASEMENT	STE
TOP OF CURB	TC
TOP OF WALL	TW
UNLESS NOTED OTHERWISE	U.N.O.
WATERLINE	WL

SECTION AND DETAIL NUMBERING SYSTEM

(1) SECTION CUT ON DRAWING SHEET X.
(2) ON SHEET X, THIS SECTION IS IDENTIFIED AS
(3) DETAILS ARE CROSS-REFERENCED IN A SIMILAR MANNER; EXCEPT THAT DETAILS ARE IDENTIFIED BY NUMBER RATHER THAN LETTER.



SHEET INDEX

SHEET NUMBER	SHEET TITLE
C1	TITLE SHEET
C2	CONSTRAINTS AND HAZARDS MAP
C3	TENTATIVE TRACT MAP
C4	GRADING AND UTILITY PLAN LOTS 1–10, 22–23
C5	GRADING AND UTILITY PLAN LOTS 11–21
C6	CROSS SECTIONS
C7	TYPICAL LOT GRADING

REV. NO	DATE	REVISED	REV. BY	CKD. BY	APRD BY
		DESTROY ALL PRINTS BEARING EARLIER DATE			

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DRAWN BY JTR
CHECKED BY KCR
DATE 08/17/2020
SCALE AS SHOWN
CA JOB NO. 190306.02

TRACT 3157
TENTATIVE TRACT MAP
TITLE SHEET
CITY OF SAN LUIS OBISPO, CALIFORNIA

SHEET C1 OF 7

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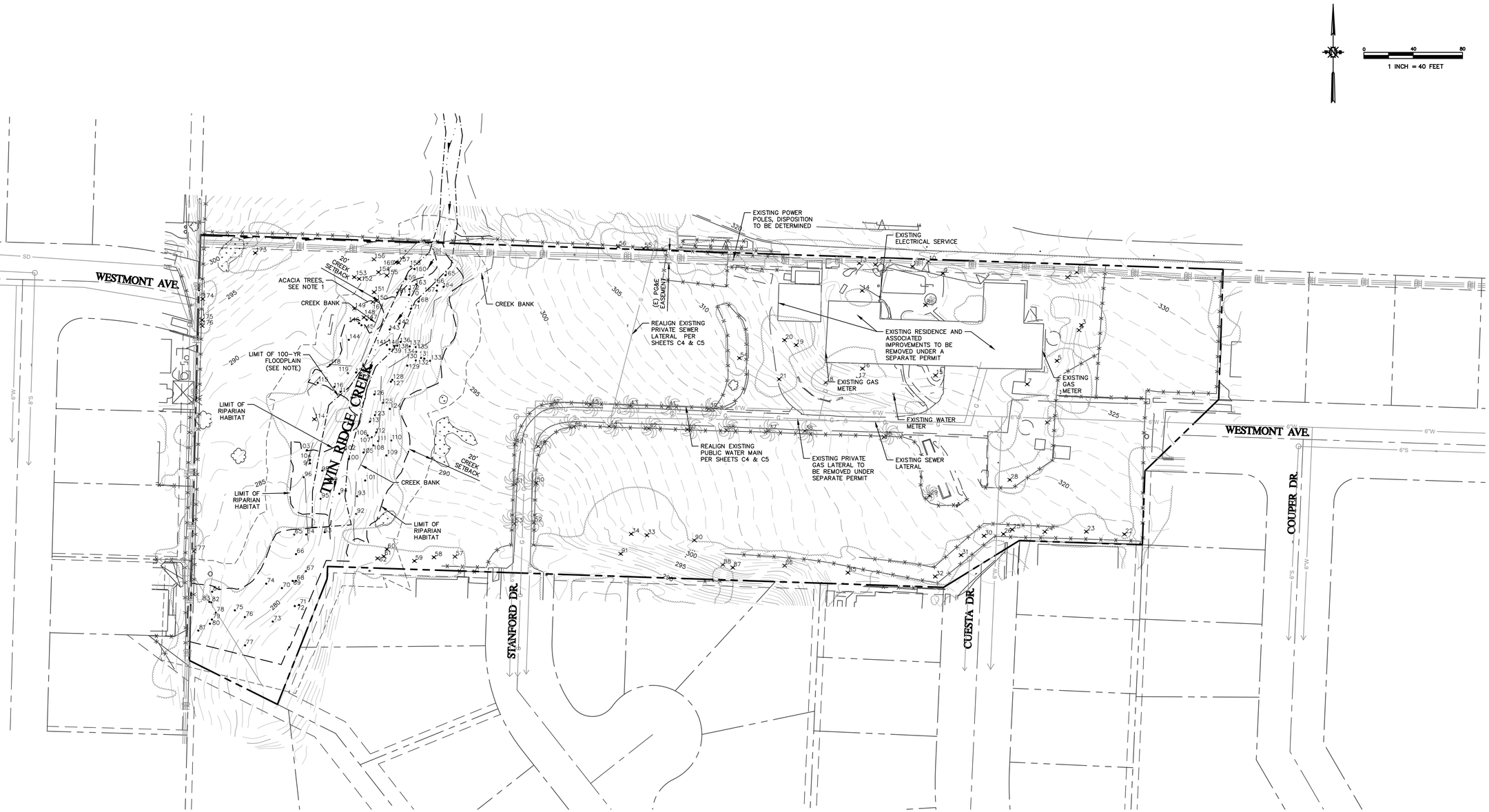

NOTES:

1. AREA WITHIN ACACIA TREE REMOVAL TO BE REVEGETATED WITH NATIVE PLANS (OAKS AND/OR TOYON).
2. ACACIA TREES ARE TREES 148–162. SEE BIOLOGY REPORT FOR PROPOSED MITIGATION.

REFERENCE DOCUMENT NOTES:

1. FLOODPLAIN ANALYSIS PER DRAINAGE REPORT TRACT 3157 468 WESTMONT AVENUE PREPARED BY CANNON MARCH 11, 2020
2. GEOTECHNICAL REPORT TO BE SUBMITTED AT A LATER DATE.
3. TREES LABELED BY TAG ID, REFER BIOLOGY REPORT BY KEVIN MERK AND ASSOCIATES FOR TREE SPECIES AND TRUNK DIAMETERS. TREES WITHIN CREEK BANK, NOT SHOWN.

LEGEND

- ×## TREE TO BE REMOVED AS PART OF DEVELOPMENT
- ## TREE TO REMAIN
- IMPACT OF MORNING GLORY PER BIOLOGY REPORT = 1076 SF

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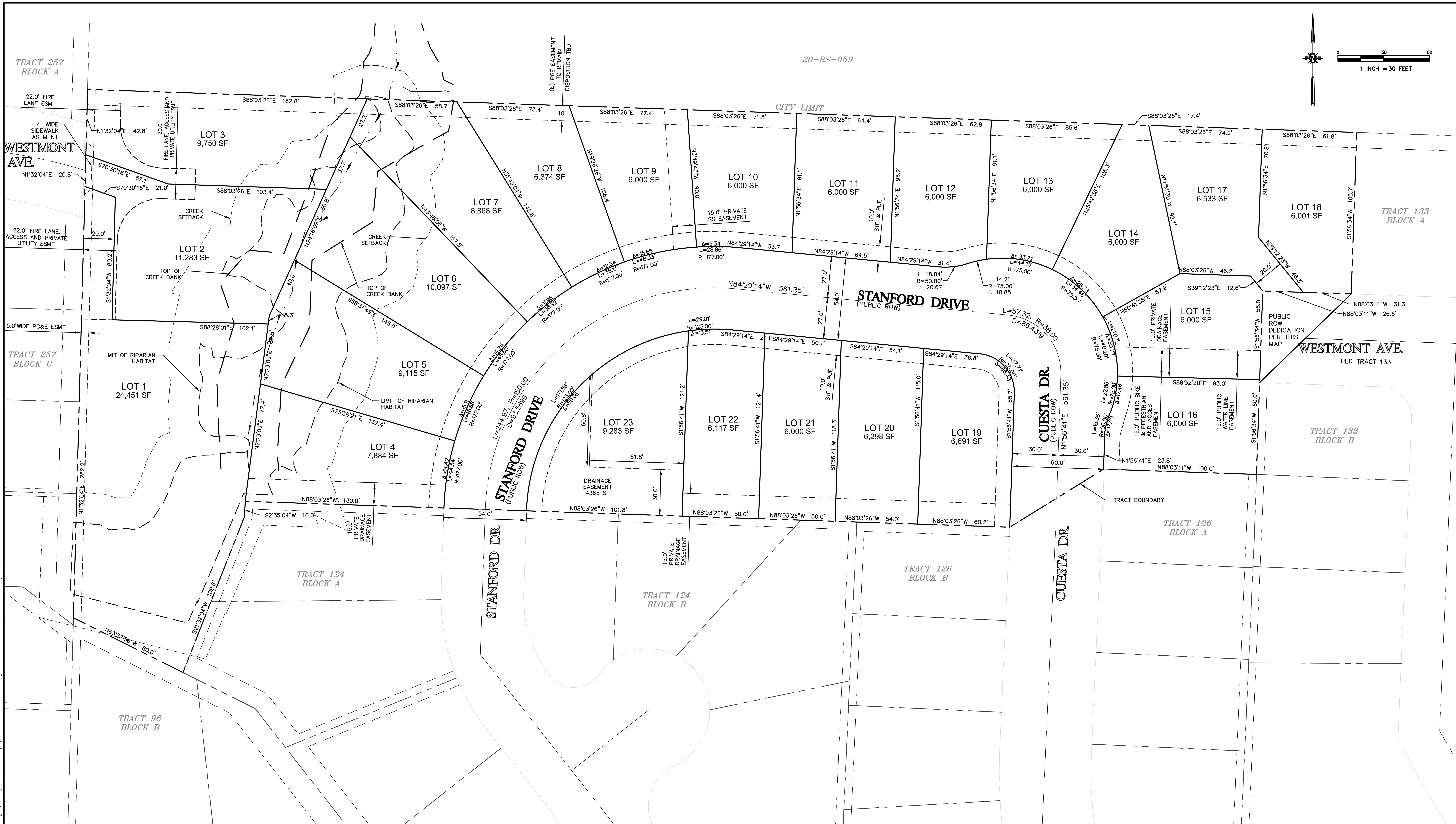
TRACT 3157
TENTATIVE TRACT MAP
CONSTRAINTS AND HAZARDS MAP
CITY OF SAN LUIS OBISPO, CALIFORNIA

SHEET
C2
OF 7



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Parcel Area Table			
LOT #	GROSS AREA (SF)	NET AREA (SF)	SLOPE (%)
1	24,451	20,103	5.6
2	11,283	9,265	7.9
3	9,750	8,976	12.5
4	7,884	6,598	7.2
5	9,115	7,468	6.9
6	10,097	7,931	6.2
7	8,868	6,823	5.2
8	6,374	SAME AS GROSS	8.6

Parcel Area Table			
LOT #	GROSS AREA (SF)	NET AREA (SF)	SLOPE (%)
9	6,000	SAME AS GROSS	11.0
10	6,000	SAME AS GROSS	10.8
11	6,000	SAME AS GROSS	10.6
12	6,000	SAME AS GROSS	1.6
13	6,000	SAME AS GROSS	0.7
14	6,000	SAME AS GROSS	4.3
15	6,000	SAME AS GROSS	7.2
16	6,000	SAME AS GROSS	6.8

Parcel Area Table			
LOT #	GROSS AREA (SF)	NET AREA (SF)	SLOPE (%)
17	6,533	5,944	5.2
18	6,001	SAME AS GROSS	5.0
19	6,691	SAME AS GROSS	7.3
20	6,298	SAME AS GROSS	7.5
22	6,117	SAME AS GROSS	7.4
23	9,283	SAME AS GROSS	8.6

NOTES:

1. GROSS SQUARE FOOTAGE IS TOTAL AREA WITHIN LOT LINES SHOWN ON THIS DRAWING AND DOES NOT INCLUDE AREAS FOR PUBLIC RIGHT-OF-WAY DEDICATION.

2. NET SQUARE FOOTAGE IS GROSS SQUARE FOOTAGE LESS AREA INSIDE THE TOP OF BANK LINE SHOWN ON THIS PLAN AS DEFINED BY MUNICIPAL CODE SECTION 17.70.110. LOT 17 NET AREA DOES NOT INCLUDE THE PAN HANDLE ON THE SOUTHEAST CORNER OF THE LOT.

3. AVERAGE SLOPE IS CALCULATED FOR THE NET LOT AREA PER THE DEFINITION OF AVERAGE CROSS SLOPE AS DEFINED IN SECTION 16.26.060 OF THE ZONING REGULATIONS.

PARCEL LEGAL DESCRIPTION

PORTION OF THE NE 1/4 OF SW 1/4 SECT. 22
T.30S R12E MDM

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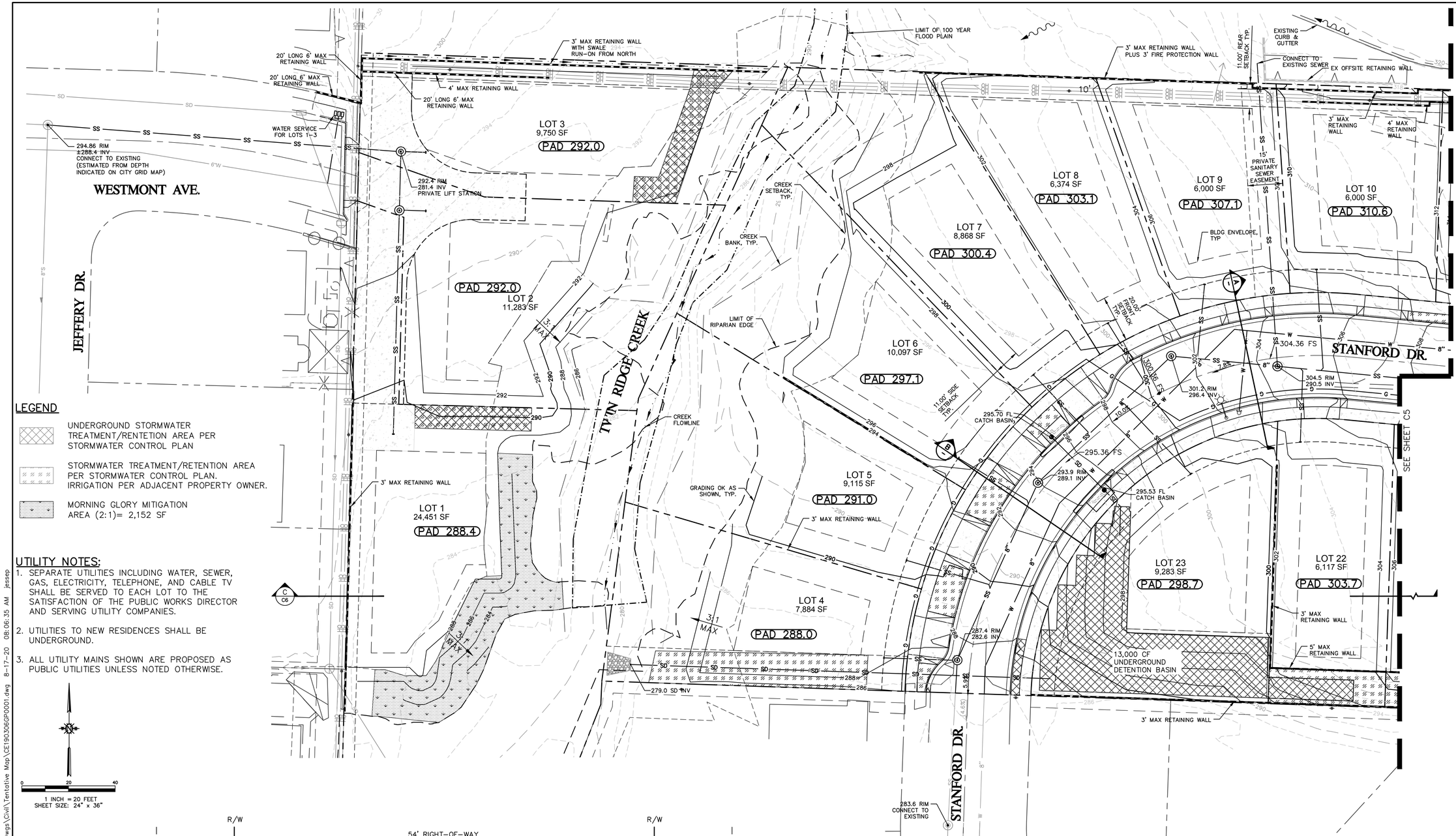
TRACT 3157
TENTATIVE TRACT MAP
TENTATIVE TRACT MAP
CITY OF SAN LUIS OBISPO, CALIFORNIA

SHEET C3 OF 7



LEGEND

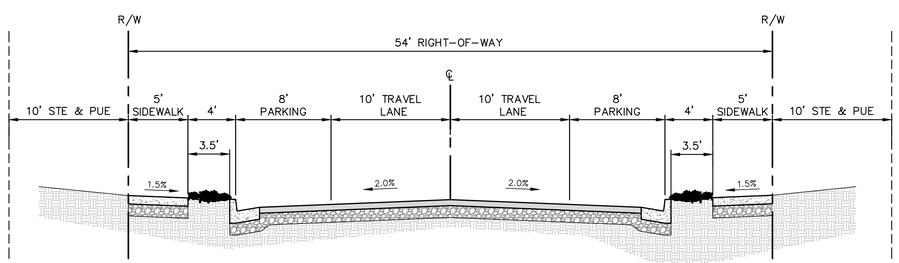
- UNDERGROUND STORMWATER TREATMENT/RENTETION AREA PER STORMWATER CONTROL PLAN
- STORMWATER TREATMENT/RETENTION AREA PER STORMWATER CONTROL PLAN. IRRIGATION PER ADJACENT PROPERTY OWNER.
- MORNING GLORY MITIGATION AREA (2:1)= 2,152 SF

UTILITY NOTES:

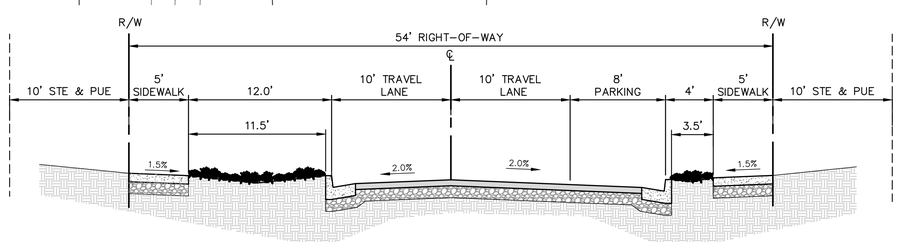
1. SEPARATE UTILITIES INCLUDING WATER, SEWER, GAS, ELECTRICITY, TELEPHONE, AND CABLE TV SHALL BE SERVED TO EACH LOT TO THE SATISFACTION OF THE PUBLIC WORKS DIRECTOR AND SERVING UTILITY COMPANIES.
2. UTILITIES TO NEW RESIDENCES SHALL BE UNDERGROUND.
3. ALL UTILITY MAINS SHOWN ARE PROPOSED AS PUBLIC UTILITIES UNLESS NOTED OTHERWISE.

0 20 40

1 INCH = 20 FEET
SHEET SIZE: 24" x 36"



STANFORD ST.
NTS
LOOKING EAST
A



STANFORD ST.
NTS
LOOKING NORTH
B

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TRACT 3157
TENTATIVE TRACT MAP
GRADING AND UTILITY PLAN
LOTS 1-10, 22-23
CITY OF SAN LUIS OBISPO, CALIFORNIA

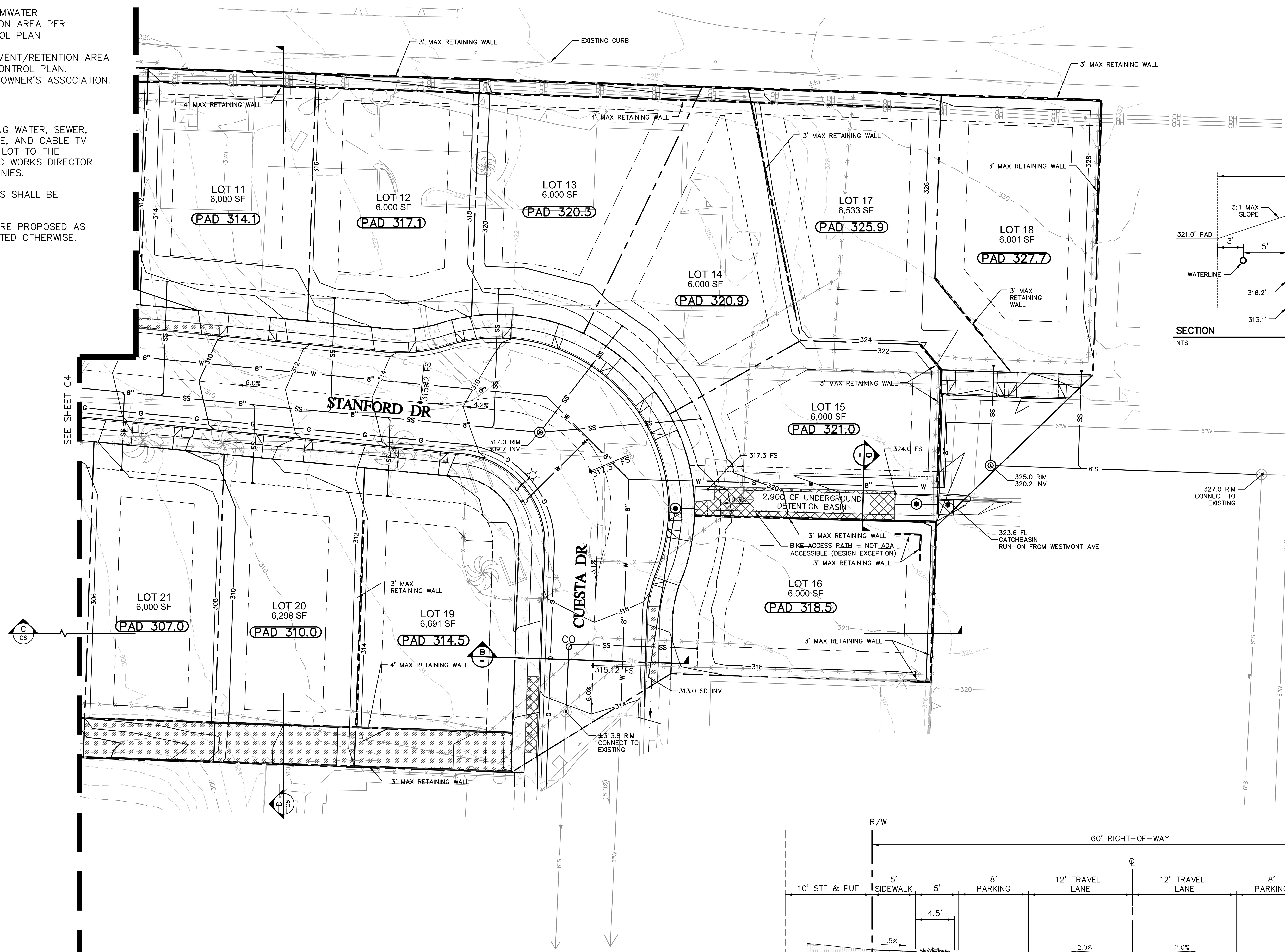
SHEET
C4
OF 7

LEGEND

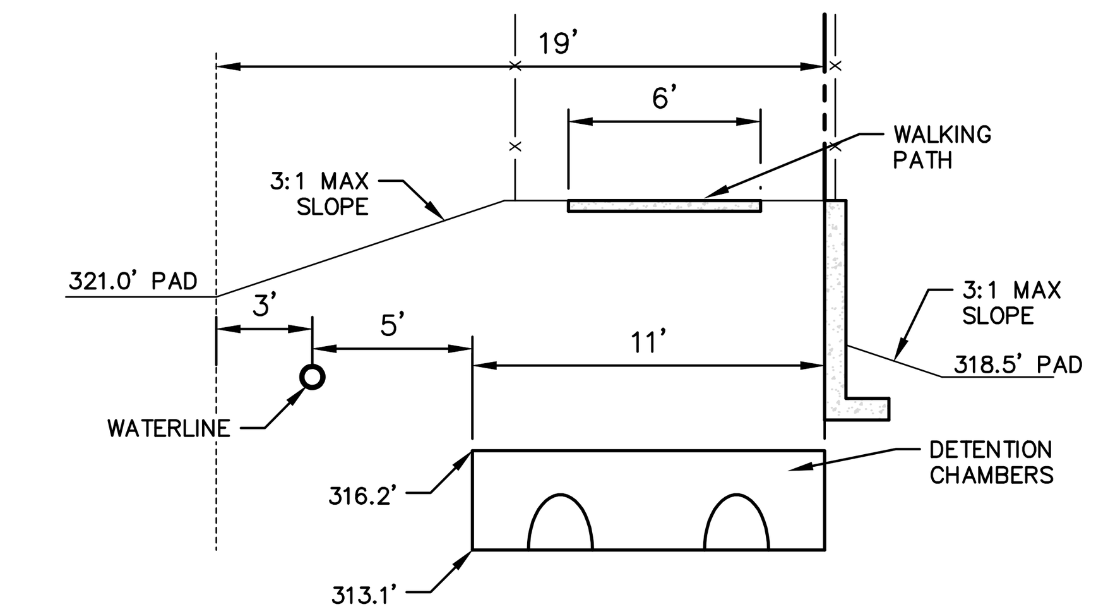
- UNDERGROUND STORMWATER TREATMENT/RENTETION AREA PER STORMWATER CONTROL PLAN
- STORMWATER TREATMENT/RETENTION AREA PER STORMWATER CONTROL PLAN. IRRIGATION BY HOMEOWNER'S ASSOCIATION.

UTILITY NOTES:

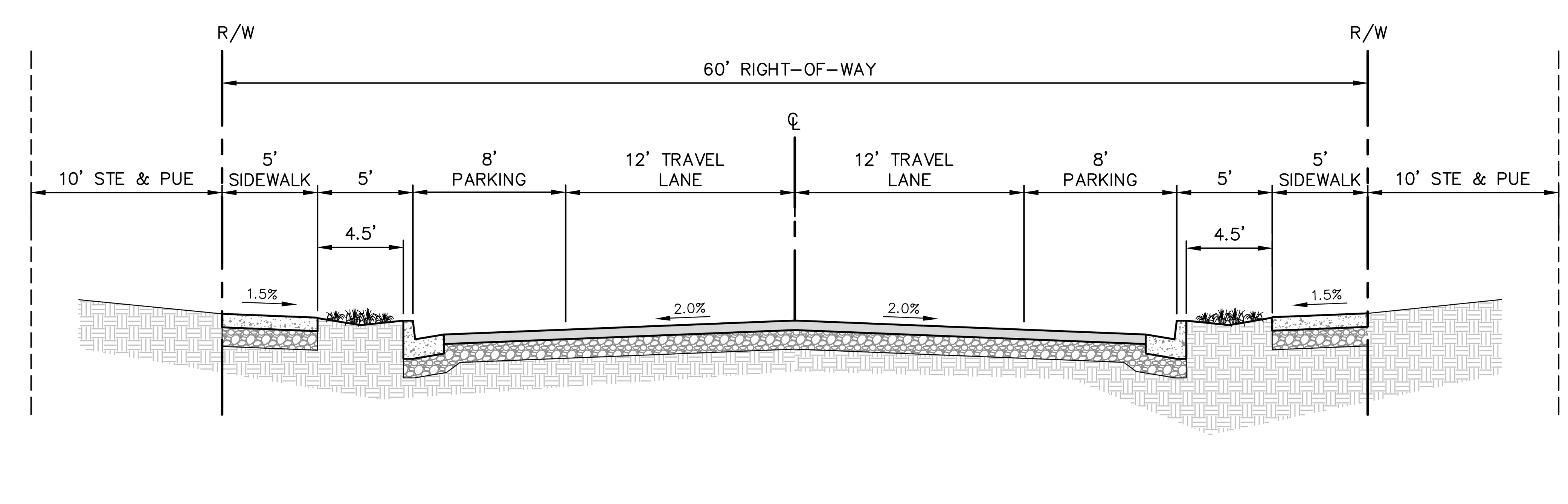
1. SEPARATE UTILITIES INCLUDING WATER, SEWER, GAS, ELECTRICITY, TELEPHONE, AND CABLE TV SHALL BE SERVED TO EACH LOT TO THE SATISFACTION OF THE PUBLIC WORKS DIRECTOR AND SERVING UTILITY COMPANIES.
2. UTILITIES TO NEW RESIDENCES SHALL BE UNDERGROUND.
3. ALL UTILITY MAINS SHOWN ARE PROPOSED AS PUBLIC UTILITIES UNLESS NOTED OTHERWISE.



1 INCH = 20 FEET
SHEET SIZE: 24" x 36"



SECTION (D)
NTS — LOOKING EAST



CUESTA DRIVE (B)
NTS — LOOKING NORTH

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TRACT 3157
TENTATIVE TRACT MAP
GRADING AND UTILITY PLAN
LOTS 11-21
CITY OF SAN LUIS OBISPO, CALIFORNIA

SHEET C5 OF 7

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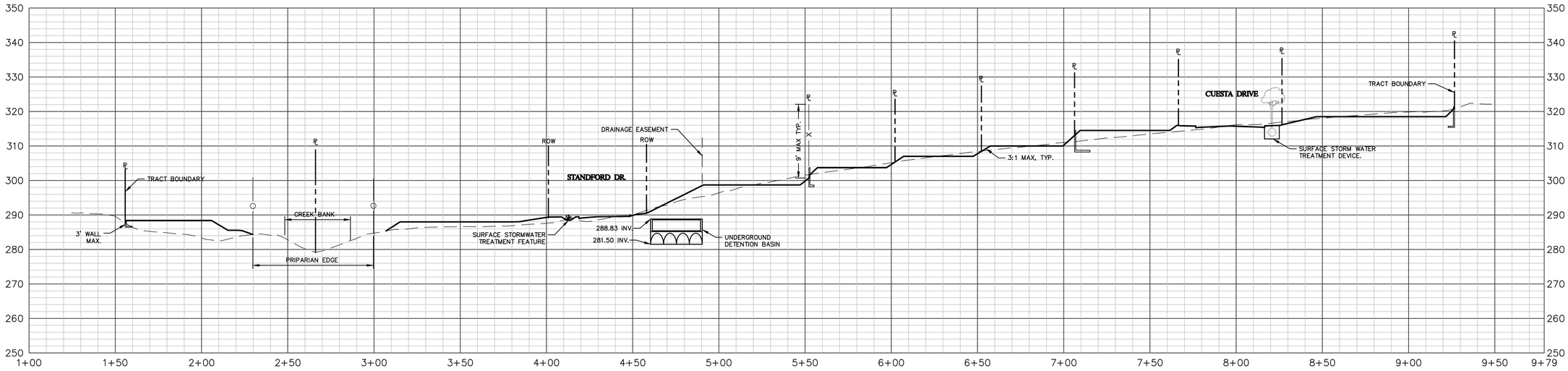
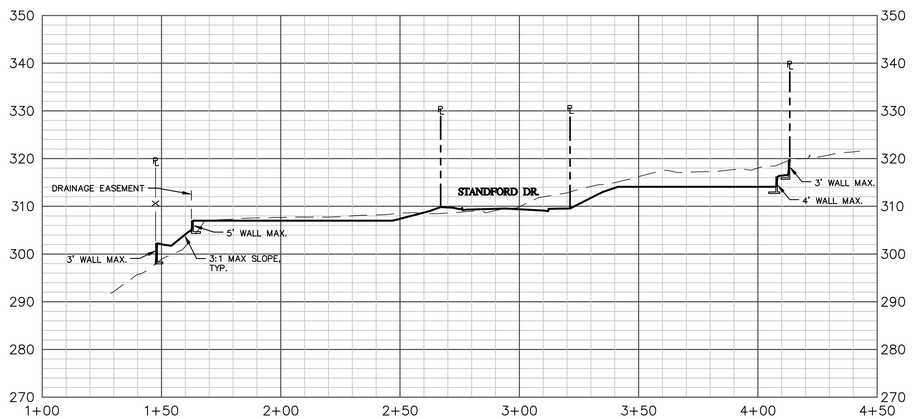


SECTION C
SHEET C4 & C5 — LOOKING NORTH (C)
H: 1" = 30'
V: 1" = 15' (2X EXAGGERATION)



SECTION D
SHEET C5 — LOOKING WEST (D)
H: 1" = 30'
V: 1" = 15' (2X EXAGGERATION)

NOTES:
1. PROPOSED FENCING SHOWN FOR REFERENCE, TO BE DESIGNED BY DEVELOPER.

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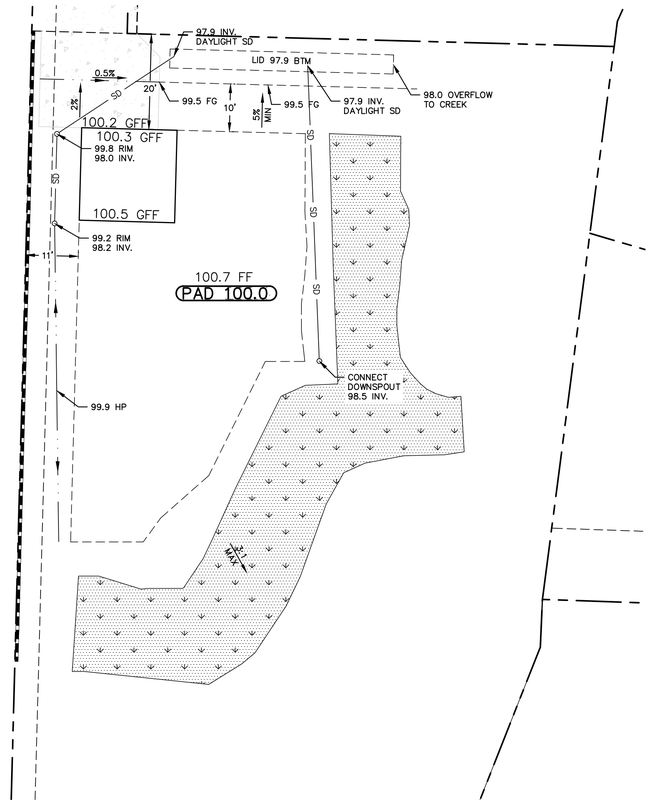
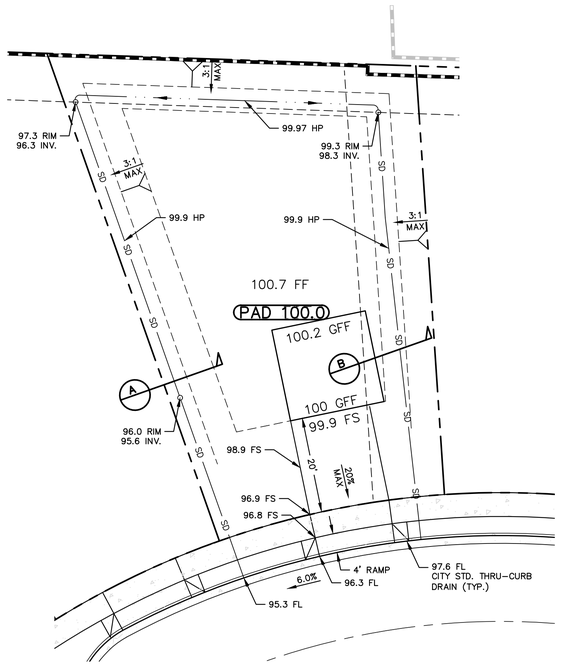
TRACT 3157
TENTATIVE TRACT MAP
CROSS SECTIONS
CITY OF SAN LUIS OBISPO, CALIFORNIA

SHEET C6
OF 7



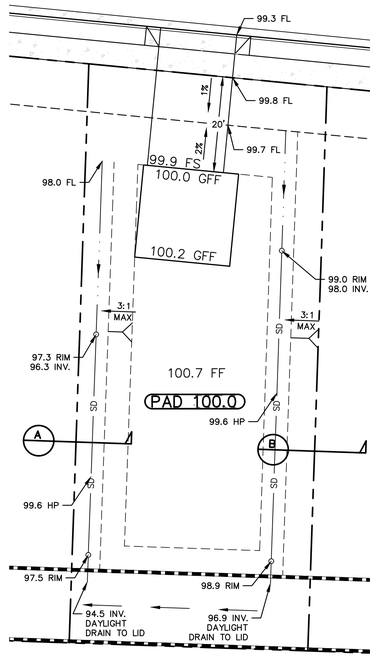
TYPICAL LOT GRADING – LOTS 1–3

SCALE HORIZ 1"=15'



TYPICAL LOT GRADING – LOTS 4–18

SCALE HORIZ 1"=15'

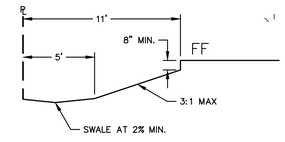


TYPICAL LOT GRADING – LOTS 19–23

SCALE HORIZ 1"=15'

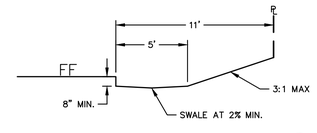
0 15 30

1 INCH = 15 FEET
SHEET SIZE: 24" x 36"



SWALE SECTION (A)

SCALE: 1"=5'



SWALE SECTION (B)

SCALE: 1"=5'

TYPICAL GRADING NOTES:

1. ALL FLATWORK ADJACENT TO BUILDINGS SHALL BE SLOPED AT A MINIMUM OF 2% FOR 10' AWAY FROM THE BUILDING UNLESS NOTED OTHERWISE.
2. FINISHED GRADE (PERVIOUS AREA) DIRECTLY ADJACENT TO BUILDINGS SHALL BE SLOPED AT 5% MINIMUM FOR 10' AWAY FROM THE BUILDING, OR TO A DESIGNATED SWALE SLOPED AT 2% MINIMUM.
3. FINISHED GRADE (DIRT OR LANDSCAPE AREA) DIRECTLY OUTSIDE OF THE BUILDING SHALL BE 8" MINIMUM AND 12" MAXIMUM BELOW FINISHED FLOOR UNLESS NOTED WITH A SPECIALLY DESIGNED FOOTING. FOOTING EMBEDMENT SHOULD MEET MINIMUM REQUIREMENTS PER STRUCTURAL ENGINEER.

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TRACT 3157
TENTATIVE TRACT MAP
TYPICAL LOT GRADING

CITY OF SAN LUIS OBISPO, CALIFORNIA

SHEET
C7
OF 7

APPENDIX B

List of Plants and Animals Observed Onsite During the Survey

Appendix B. List of Plants and Animals Observed Onsite During the Site Visits

Scientific Name	Common Name
Plants	
Abelia sp. *#	Abelia
*Acacia dealbata**	Silver wattle
Acer palmatum	Japanese maple
Aloe vera#	Aloe
Aralia sp. *#	Spikenard
Arctostaphylos sp. #	Manzanita
Avena sp.*	Wild oat
Azaela sp. *#	Azaela
Baccharis pilularis	Coyote brush
*Brassica nigra**	Black mustard
Buxus sp. *#	Boxwood
Calocedrus decurrens	Incense cedar
Calystegia subacaulis* ssp. *episcopalis	**Cambria morning-glory**
Camellia sp. *#	Camellia
Castilleja exserta	Purple owl's clover
Ceanothus thyrsiflorus#	Blueblossum ceanothus
Citrus limon#	Lemon
Citrus sinensis#	Orange
Citrus unshiu#	Satsuma mandarin
Convolvulus sp. *#	Bindweed
Crassula ovata#	Jade plant
Cyathea cooperii#	Australian tree fern
Cycas revoluta#	Sago palm
*Cynara cardunculus**	Artichoke thistle
*Cynodon dactylon**	Bermuda grass
Cyperus eragrostis	Tall flatsedge
*Dactylis glomerata**	Orchard grass
Digitalis sp. *#	Foxglove
Diospyros sp. *#	Persimmon
*Dipsacus fullonum**	Fuller's teasel
Echium sp. *#	Echium
Eleocharis macrostachya	Common spikerush
*Erodium botrys**	Big heron bill
*Erodium moschatum**	Whitestem filaree
Eucalyptus sp. *#	Eucalyptus
*Euphorbia peplus**	Petty spurge
*Festuca myuros**	Rattail sixweeks grass
*Festuca perennis**	Italian rye grass
*Foeniculum vulgare**	Fennel
Frangula californica#	California coffeeberry
Geranium carolinianum	Carolina geranium
Geranium sp.*#	Geranium
Grevillea sp.	Grevillea
Hedera helix#	English ivy
*Hedypnois cretica**	Crete weed
Hesperocyparis sp.	Cypress
Heteromeles arbutifolia#	Toyon

Scientific Name	Common Name
*Hirschfeldia incana**	Summer mustard
*Hordeum murinum**	Foxtail barley
Hura crepitans#*	Monkey no-climb/Sandbox tree
Hydrangea sp. *#	Hydrangea
Juglans californica	Southern California black walnut
Juncus phaeocephalus	Brown-headed rush
Juniperus sp. *#	Juniper
Lavandula angustifolia#*	Lavender
Lonicera japonica#*	Japanese honeysuckle
Malus domestica#*	Apple
*Malva neglecta**	Dwarf mallow
*Medicago polymorpha**	California burclover
Microseris douglasii	Douglas' silverpuffs
Myoporum laetum#*	Myoporum
Oleo europaea#*	Olive
Opuntia sp. *#	Beavertail cactus
*Oxalis pes-caprae**	Bermuda buttercup
Philodendron selloum#*	Split leaf elephant ear
Phoenix canariensis#*	Canary Island palm
Photinia x *fraseri*#*	Red tip photinia
Phyllostachys sp. *#	Bamboo
Picea sp.	Spruce
Pinus radiata#*	Monterey pine
*Pinus sabiniana**	Gray pine
Pinus spp.*#	Pines (various)
Pittosporum sp. *#	Cheesewood
Plantago erecta	California plantain
*Plantago lanceolata**	English plantain
Populus sp.	Cottonwood (not *trichocarpa* or *fremontii*)
Prunus spp.	Fruit trees (various)
Punica granatum#*	Pomegranate
Pyracantha sp. *#	Firethorn (various)
Quercus agrifolia	Coast live oak
Quercus lobata#	Valley oak
Quercus suber#*	Cork oak
Quercus sp. (*wislizenii* potential hybrid)	Interior live oak (?)
Rhus integrifolia#	Lemonade berry
Rosa sp. *#	Rose (various ornamental)
Rosmarinus officinalis#*	Rosemary
Roystonia regia	Royal palm
*Rumex crispus**	Curly dock
Salix laevigata	Red willow
Salix lasiolepis	Arroyo willow
Salvia leucantha#*	Mexican bush sage
Schinus molle	Peruvian pepper tree
*Senecio vulgaris**	Common groundsel
Sequoia sempervirens#*	Coast redwood
*Stipa miliacea**	Smilo grass
Stipa pulchra	Purple needle grass
Strelitzia nicolai#*	Bird-of-paradise

Scientific Name	Common Name
*Syagrus romanzoffiana**#	Queen palm
*Tanacetum parthenium**#	Feverfew
Tilia sp. *#	Lime
Toxicodendron diversilobum	Poison oak
Triticum sp.*	Wheat
Ulnus sp.	Elm
Umbellularia californica	California bay
Verbena sp. #	Verbena
Vicia villosa	Hairy vetch
*Vinca major**#	Greater periwinkle
Animals	
Aphelocoma californica	California scrub jay
Cathartes aura	Turkey vulture
Colaptes auratus	Northern flicker
Corvus brachyrhynchos	American crow
Danaus plexippus	**Monarch butterfly**
Icterus cucullatus	Hooded oriole
Melanerpes formicivorus	Acorn woodpecker
*Meleagris gallopavo**	Wild turkey
Mimus polyglottos	Northern mockingbird
***Neotoma* sp.**	**Woodrat (midden)**
Phylum Nematomorpha	Horsehair worm
Otospermophilus beecheyi	California ground squirrel
Pipilo maculatus	Spotted towhee
Pseudacris sierra	Sierran treefrog (calling)
Sayornis nigricans	Black phoebe
Sceloporus occidentalis	Western fence lizard
Sciurus griseus	Western gray squirrel
Sialia mexicana	Western bluebird
*Streptopelia decaocto**	Eurasian collared dove
Zenaida macroura	Mourning dove
Zonotrichia leucophrys	White-crowned sparrow

*Non-native species
#Planted in developed and/or ornamental areas
Bold = special-status species

APPENDIX C

Photo Plate

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Appendix C. Photo Plate

Photo 1. Example view of Ornamental areas along fence line, with a large towering eucalyptus tree and variety of planted native and non-native shrub species.

Photo 2. View of shrub species native to the region but planted onsite as Ornamentals, along the southern fenceline abutting the neighboring properties.

Photo 3. Example of the Developed/Ruderal areas onsite with associated landscaping. The large coast redwood trees in the background were mapped as Ornamental because they provided more wildlife habitat value compared to the maintained landscape areas.

Photo 4. Additional view of the Developed area including pool, patio, and house with surrounding landscaping.

Photo 5. Existing entrance to the property from Stanford Drive. The driveway and queen palm (*Syagrus romanzoffiana*) trees were considered to be part of the Developed land use type.

Photo 6. View of the Riparian habitat onsite and the unnamed tributary with a little flowing water in late March. This community was dominated by coast live oak (*Quercus agrifolia*) with occasional red willow (*Salix laevigata*) and arroyo willow (*S. lasiolepis*). Also present were other native and non-native species that were planted or had spread naturally.

Photo 7. View of a small patch of wetland habitat along the unnamed drainage that was present in an area lacking riparian canopy.

Photo 8. Annual Grassland in the central portion of the property with a predominance of non-native species. The GPS unit marks the location of a small Cambria morning-glory (*Calystegia subacaulis* ssp. *episcopalis*) occurrence. This is a sensitive species and has a California Rare Plant Rank of 4.2.

Photo 9. Annual Grassland habitat in the northern central portion of the site contained a predominance of non-native species from animal husbandry and human disturbance.

Photo 10. Annual Grassland in the western portion of the property where non-native artichoke thistle (*Cynara cardunculus*) occurred in high abundance. Photo taken in late-April.

Photo 11. A small Rock Outcrop is covered by a lemonade berry (*Rhus integrifolia*) shrub toward the center of the photo. Riparian habitat along the swale and unnamed drainage can be seen in the background. Photo is taken from the western portion of the property looking south.

Photo 12. Example of tree tags used for the tree inventory. Each specimen at least 3 inches diameter at breast height was identified, given a unique number, and mapped using GPS. Data recorded for each included vigor, number of trunks, and other observations.

APPENDIX D

Tree Inventory Data Table

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Appendix D. Tree Inventory Data Table

Tag Number	Scientific Name	Common Name	Vigor	DBH (inches)	Observations
1	*Picea* sp.	spruce	High	14	Near house at northern fenceline
2	*Quercus agrifolia*	coast live oak	High	9, 11	
3	*Hesperocyparis* sp.	cypress	High	23	
4	*Quercus agrifolia*	coast live oak	High	3	
5	*Olea europaea*	olive	High	4, 4	
6	*Grevillea* sp.	grevillea	High	26	Large specimen near house
7	*Olea europaea*	olive	High	5, 5, 6, 5, 6	
8	*Roystonea regia*	royal palm	High	12	
9	*Malus domestica*	apple	Low	5, 10	Poor health with bark peeling off
10	*Quercus suber*	cork oak	High	3	
11	*Prunus* sp.	plum	High	5, 3, 2	
12	*Acer palmatum*	Japanese maple	High	3, 3, 2, 1, 1	
13	*Hura crepitans*	monkey no climb/sandbox tree	High	8, 4, 2	
14	*Aralia* sp.	spikenard	High	6, 5, 4, 3, 2, 2, 2, 1	
15	*Prunus* sp. (*armeniaca*)	apricot	Low	14	Topped with new growth emerging
16	*Citrus* x *sinensis*	navel orange	High	3, 2, 1	
17	*Sequoia sempervirens*	coast redwood	High	47	At corner of house
18	*Sequoia sempervirens*	coast redwood	High	40	At corner of house
19	*Ulnus* ?	dormant possible elm	High	22	
20	*Schinus molle*	Peruvian pepper tree	Medium	12, 8, 4	
21	*Schinus molle*	Peruvian pepper tree	Medium	16, 14	
22	*Olea europaea*	olive	High	3, 3, 1	At property corner
23	*Sequoia sempervirens*	coast redwood	Medium	38	
24	*Sequoia sempervirens*	coast redwood	High	10	
25	*Pinus radiata*	Monterey pine	High	17	
26	*Picea* sp.	spruce	Medium	6	
27	*Pinus* sp.	unknown pine	High	6	Slender needles
28	*Prunus* sp.	deciduous fruit tree	High	12	Just breaking dormancy
29	*Phoenix canariensis*	Canary Island palm	High	12	
30	*Olea europaea*	olive	High	3, 2	
31	*Quercus agrifolia*	coast live oak	High	4, 3	
32	*Quercus agrifolia*	coast live oak	High	3	
33	*Eucalyptus* sp.	eucalyptus	High	33	

Tag Number	Scientific Name	Common Name	Vigor	DBH (inches)	Observations
34	*Eucalyptus* sp.	eucalyptus	High	54, 41	
35	*Syagrus romanzoffiana*	Queen palm	High	13	Planted along driveway
36	*Syagrus romanzoffiana*	Queen palm	High	13	Planted along driveway
37	*Syagrus romanzoffiana*	Queen palm	High	13	Planted along driveway
38	*Syagrus romanzoffiana*	Queen palm	High	13	Planted along driveway
39	*Syagrus romanzoffiana*	Queen palm	High	13	Planted along driveway
40	*Syagrus romanzoffiana*	Queen palm	High	13	Planted along driveway
41	*Syagrus romanzoffiana*	Queen palm	High	13	Planted along driveway
42	*Syagrus romanzoffiana*	Queen palm	High	13	Planted along driveway
43	*Syagrus romanzoffiana*	Queen palm	High	13	Planted along driveway
44	*Syagrus romanzoffiana*	Queen palm	High	13	Planted along driveway
45	*Syagrus romanzoffiana*	Queen palm	High	13	Planted along driveway
46	*Syagrus romanzoffiana*	Queen palm	High	13	Planted along driveway
47	*Syagrus romanzoffiana*	Queen palm	High	13	Planted along driveway
48	*Syagrus romanzoffiana*	Queen palm	High	13	Planted along driveway
49	*Syagrus romanzoffiana*	Queen palm	High	13	Planted along driveway
50	*Syagrus romanzoffiana*	Queen palm	High	13	Planted along driveway
51	*Syagrus romanzoffiana*	Queen palm	High	12	Planted along driveway
52	*Syagrus romanzoffiana*	Queen palm	High	9	Planted along driveway
53	*Syagrus romanzoffiana*	Queen palm	High	13	Planted along driveway
54	*Melaleuca alternifolia*	narrow-leaved paperbark	High	5, 4, 3, 2	Mixed in with other shrubs
55	*Populus* sp.	cottonwood	High	5, 5, 5, 4, 3, 3, 3, 3, 2	Growing through fenceline
56	*Populus* sp.	cottonwood	High	6, 4, 3, 2, 2	Growing through fenceline
57	*Schinus molle*	Peruvian pepper tree	High	7	
58	*Schinus molle*	Peruvian pepper tree	High	6, 4, 3, 2, 2	
59	*Quercus agrifolia*	coast live oak	High	5, 4, 3	
60	*Quercus agrifolia*	coast live oak	High	4	
61	*Quercus agrifolia*	coast live oak	High	4, 1	
62	*Quercus agrifolia*	coast live oak	High	7	
63	*Salix laevigata*	red willow	High	18, 12, 12	Covered in English ivy
64	*Quercus agrifolia*	coast live oak	High	3	
65	*Quercus agrifolia*	coast live oak	High	10	
66	*Sequoia sempervirens*	coast redwood	High	35	Within riparian zone
67	*Sequoia sempervirens*	coast redwood	High	28	Within riparian zone

Tag Number	Scientific Name	Common Name	Vigor	DBH (inches)	Observations
68	*Quercus agrifolia*	coast live oak	High	6	Dense English ivy in this area
69	*Quercus agrifolia*	coast live oak	High	6	Dense English ivy in this area
70	*Salix lasiolepis*	arroyo willow	High	3, 3, 2	Dense English ivy in this area
71	*Quercus agrifolia*	coast live oak	High	4	Dense English ivy in this area
72	*Pinus* sp.	pine	High	14	Dense English ivy in this area
73	*Quercus agrifolia*	coast live oak	High	14	Dense English ivy in this area
74	*Salix lasiolepis*	arroyo willow	High	5, 5, 5, 4, 3, 3, 2	Dense English ivy in this area
75	*Quercus agrifolia*	coast live oak	High	8	Poison oak present
76	*Quercus agrifolia*	coast live oak	High	8	Poison oak present
77	*Quercus agrifolia*	coast live oak	High	14, 3	Dense English ivy in this area
78	*Quercus agrifolia*	coast live oak	High	12, 6	Dense English ivy in this area
79	*Quercus agrifolia*	coast live oak	High	14	Dense English ivy in this area
80	*Quercus agrifolia*	coast live oak	High	12, 10	Dense English ivy in this area
81	*Pittosporum* sp.	cheesewood	High	5, 4, 3, 3	at fence in southeast corner
82	*Quercus agrifolia*	coast live oak	High	9	Included in riparian zone
83	*Quercus agrifolia*	coast live oak	High	4	Included in riparian zone
84	*Quercus agrifolia*	coast live oak	High	4	Included in riparian zone
85	*Quercus agrifolia*	coast live oak	High	14, 8, 4	On southern property line
86	*Quercus agrifolia*	coast live oak	High	6, 4, 4	On southern property line
87	*Pinus sabiniana*	gray pine	Medium	32	On southern property line
88	*Pinus sabiniana*	gray pine	Medium	32	On southern property line (no tag)
89	*Quercus agrifolia*	coast live oak	High	6	On southern property line
90	*Myoporum laetum*	myoporum	Medium	6	On southern property line (ivy)
91	*Quercus agrifolia*	coast live oak	High	16, 8	On southern property line
92	*Quercus agrifolia*	coast live oak	High	12	At dirt road crossing creek
93	*Quercus agrifolia*	coast live oak	High	10	In riparian zone
94	*Quercus agrifolia*	coast live oak	High	5, 2	In riparian zone
95	*Quercus agrifolia*	coast live oak	High	13	In riparian zone
96	*Quercus agrifolia*	coast live oak	High	8	In riparian zone
97	*Quercus agrifolia*	coast live oak	High	3	In riparian zone
98	*Quercus agrifolia*	coast live oak	High	3	In riparian zone
99	*Quercus agrifolia*	coast live oak	High	14	In riparian zone
100	*Quercus agrifolia*	coast live oak	High	7	In riparian zone
101	*Quercus agrifolia*	coast live oak	High	34	In riparian zone

Tag Number	Scientific Name	Common Name	Vigor	DBH (inches)	Observations
102	*Salix laevigata*	red willow	High	4, 4, 3, 3, 3, 2, 2	In riparian zone
103	*Quercus agrifolia*	coast live oak	High	3, 2	In riparian zone
104	*Quercus agrifolia*	coast live oak	High	3, 1	In riparian zone
105	*Quercus agrifolia*	coast live oak	High	10	In riparian zone
106	*Quercus agrifolia*	coast live oak	High	8	In riparian zone
107	*Quercus agrifolia*	coast live oak	High	3	In riparian zone
108	*Salix lasiolepis*	arroyo willow	Medium	6, 4	Dying branches present
109	*Quercus agrifolia*	coast live oak	High	4	In riparian zone
110	*Quercus agrifolia*	coast live oak	High	12	In riparian zone
111	*Quercus agrifolia*	coast live oak	High	14	In riparian zone
112	*Quercus agrifolia*	coast live oak	High	4	In riparian zone
113	*Quercus agrifolia*	coast live oak	Medium	3, 3	In riparian zone
114	*Eucalyptus* sp.	eucalyptus	High	42	Rooted just beyond top of bank
115	*Quercus agrifolia*	coast live oak	High	6	In riparian zone
116	*Quercus* sp.	interior live oak hybrid?	High	4	Possible hybrid oak
117	*Quercus* sp.	interior live oak hybrid?	High	4, 3	Possible hybrid oak
118	*Quercus* sp.	interior live oak hybrid?	High	5, 3, 2	Possible hybrid oak
119	*Quercus agrifolia*	coast live oak	High	7, 4	In riparian zone
120	*Umbellularia californica*	California bay	High	5	In riparian zone
121	*Quercus agrifolia*	coast live oak	High	5, 1	In riparian zone
122	*Quercus agrifolia*	coast live oak	High	6	In riparian zone at channel
123	*Quercus agrifolia*	coast live oak	High	7	At dirt road crossing
124	*Quercus agrifolia*	coast live oak	High	4	At dirt road crossing
125	*Quercus agrifolia*	coast live oak	Low	4	Fungus attack
126	*Pinus sabiniana*	gray pine	High	12	
127	*Quercus agrifolia*	coast live oak	High	5, 2, 1	
128	*Quercus agrifolia*	coast live oak	High	8, 6, 4	
129	*Quercus agrifolia*	coast live oak	Medium	6, 6	Dense English ivy
130	*Quercus* sp.	interior live oak hybrid?	High	12	Dense English ivy
131	*Quercus agrifolia*	coast live oak	High	12	
132	*Quercus agrifolia*	coast live oak	High	7	
133	*Quercus agrifolia*	coast live oak	High	12	Poison oak - no tag
134	*Quercus* sp.	interior live oak hybrid?	Medium	10	Poison oak - no tag
135	*Quercus* sp.	interior live oak hybrid?	Medium	8	Possible hybrid

Tag Number	Scientific Name	Common Name	Vigor	DBH (inches)	Observations
136	*Quercus agrifolia*	coast live oak	Medium	8	Dense English ivy
137	*Quercus* sp.	interior live oak hybrid?	Medium	4	Possible hybrid
138	*Quercus agrifolia*	coast live oak	Medium	6	Dense English ivy
139	*Quercus agrifolia*	coast live oak	High	6	
140	*Salix lasiolepis*	arroyo willow	Low	4	Dense English ivy
141	*Quercus agrifolia*	coast live oak	Medium	12	Dense English ivy
142	*Juglans californica*	southern California black walnut	Low	6	Ivy and poison oak at fork in creek
143	*Quercus agrifolia*	coast live oak	High	14	Dense English ivy
144	*Quercus agrifolia*	coast live oak	High	6	
145	*Quercus agrifolia*	coast live oak	High	14	
146	*Quercus agrifolia*	coast live oak	High	6	
147	*Quercus agrifolia*	coast live oak	High	4	
148	*Acacia dealbata*	silver wattle	High	6, 4, 4, 2	Acacia grove is dense/overgrown
149	*Acacia dealbata*	silver wattle	High	3, 2, 1	
150	*Acacia dealbata*	silver wattle	High	3, 1	
151	*Acacia dealbata*	silver wattle	High	5, 4	
152	*Acacia dealbata*	silver wattle	High	10, 5, 2	
153	*Acacia dealbata*	silver wattle	High	8	
154	*Acacia dealbata*	silver wattle	High	4, 4, 3, 3, 2	
155	*Acacia dealbata*	silver wattle	High	5, 1	
156	*Acacia dealbata*	silver wattle	High	5, 4, 3	
157	*Acacia dealbata*	silver wattle	High	6, 2, 2	Clusters of stems
158	*Acacia dealbata*	silver wattle	High	4,3,2	
159	*Acacia dealbata*	silver wattle	High	3, 3, 2	
160	*Acacia dealbata*	silver wattle	High	5, 2	
161	*Acacia dealbata*	silver wattle	High	3	
162	*Acacia dealbata*	silver wattle	High	3	
163	*Myoporum laetum*	myoporum	Low	6, 5 3, 3, 2, 2, 2, 2, 1	
164	*Quercus agrifolia*	coast live oak	High	8	
165	*Quercus agrifolia*	coast live oak	High	4	
166	*Quercus agrifolia*	coast live oak	High	6	
167	*Quercus agrifolia*	coast live oak	High	6, 4	
168	*Juglans californica*	southern California black walnut	High	5, 4, 3	Along channel
169	*Olea europaea*	olive	High	5	

Tag Number	Scientific Name	Common Name	Vigor	DBH (inches)	Observations
170	*Quercus agrifolia*	coast live oak	High	6	
171	*Heteromeles arbutifolia*	toyon	High	6, 3, 2, 2	
172	*Quercus agrifolia*	coast live oak	High	6	
173	*Quercus agrifolia*	coast live oak	High	4, 3	
174	*Calocedrus decurrens*	incense cedar	High	14, 12	
175	*Quercus agrifolia*	coast live oak	High	6,5,4,3	
176	*Quercus agrifolia*	coast live oak	High	8	
177	*Juglans californica*	southern California black walnut	High	4, 3, 3	Planted or seeded along fence

APPENDIX E

Special Status Biological Resources Summary

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Appendix E. Special-status Biological Resources Summary

Common Name	Scientific Name	Fed	CA	CRPR	Ecological Information	Evaluation of Occurrence/ Site Suitability / Local Records
PLANTS						
Adobe sanicle	*Sanicula maritima*	—	R	1B.1	Perennial herb; chaparral, coastal prairie, meadows and seeps, valley and foothill grassland on clay and serpentine soils; 30-240 meters in elevation; blooms February to May.	**Not expected.** Grassland habitat and clay soils are present, but no serpentine influence on the site. The site is within the species' elevational range, and has been recorded at several locations nearby, including Cerro Romualdo, Laguna Lake, South Hills Open Space and Bishop Peak, but not observed during surveys when it would have been in identifiable condition.
Aparejo grass	*Muhlenbergia utilis*	—	—	1B.2	Perennial bunch grass; coastal scrub, creosote bush scrub, wetlands and riparian; 250-1000 meters in elevation; blooms October to May.	**Not expected.** Potentially suitable wetland/riparian habitat is present, but the site is outside of the elevational range of the species and there is only one record nearby at Camp SLO. Not observed during surveys when it would have been in identifiable condition.
Betty's dudleya	*Dudleya abramsii* ssp. *bettinae*	—	—	1B.2	Perennial herb; chaparral, coastal scrub and valley and foothill grassland on rocky, serpentine soils; 20-180 meters in elevation; blooms May to July.	**Not expected.** Species is restricted to serpentine rock outcrops, which are not present onsite. Perennial species would have been seen during the surveys.
Blochman's dudleya	*Dudleya blochmaniae* ssp. *blochmaniae*	—	—	1B.1	Perennial herb; coastal bluff scrub, chaparral, coastal scrub, and valley and foothill grassland on rocky, often clay or serpentine soils and sandstone rock outcrops; 5 - 450 meters in elevation; blooms April to June.	**Not expected.** Species is associated with rocky areas or thin layers of clay soils over serpentine rock, which is not present onsite. Found close to site in annual grassland. Perennial species would have been seen during the surveys.

Common Name	Scientific Name	Fed	CA	CRPR	Ecological Information	Evaluation of Occurrence/ Site Suitability / Local Records
Brewer's spineflower	*Chorizanthe breweri*	—	—	1B.3	Annual herb; coniferous forest, chaparral, cismontane woodland and coastal scrub on serpentinite or gravelly soils; 45-800 meters in elevation; blooms April to August.	**Not expected.** No suitable soils or serpentine rock outcroppings are present. Numerous records nearby and the site is within the species distribution, but not observed during surveys.
California (southern) black walnut	*Juglans californica*	—	—	4.2	Deciduous tree that naturally occurs along rivers and streams. Planted and hybridized throughout California and occurs in landscaped and natural settings.	**Present.** Several young specimens observed onsite including along the creek corridor and planted or seeded along the western study area boundary at the fence-line.
Cambria morning-glory	*Calystegia subacaulis* ssp. *episcopalis*	—	—	4.2	Perennial rhizomatous herb; chaparral, cismontane woodland, coastal prairie, and valley and foothill grassland usually on clay soils; 30-500 meters in elevation; blooms March to July.	**Present.** Suitable grassland habitat and soils are present, and several occurrences were recorded onsite during botanical surveys.
Chaparral ragwort	*Senecio aphanactis*	—	—	2B.2	Annual herb; chaparral, cismontane woodland, coastal scrub in drying alkaline flats; 15-800 meters in elevation; blooms January to April.	**Not expected.** No suitable soils are present onsite. All records in the vicinity are from sites with serpentine soils. Not observed during surveys.
Chorro Creek bog thistle	*Cirsium fontinale* var. *obispoense*	E	E	1B.2	Perennial herb; chaparral, cismontane woodland, coastal scrub, valley and foothill grassland in seeps and drainages with serpentine; 35-385 meters in elevation; blooms February to September.	**Not expected.** No suitable soils or serpentine seep habitat are present, Occurs at Laguna Lake, Irish Hills and in the hills on the north side of Hwy. 1 on Camp San Luis Obispo. Not observed during surveys.
Congdon's tarplant	*Centromadia parryi* ssp. *congdonii*	—	—	1B.1	Annual herb; valley and foothill grassland and disturbed sites on alkaline soils; 0-230 meters in elevation; blooms May to November.	**Not expected.** Grassland habitat and clay soils are present, but no topographic depressions and seasonal wetlands capable of supporting this species. Has been recorded in seasonal wetlands at Laguna Lake and Camp SLO. Would not occur in wetland habitat along the creek. Not observed during surveys.

Common Name	Scientific Name	Fed	CA	CRPR	Ecological Information	Evaluation of Occurrence/ Site Suitability / Local Records
Cuesta Pass checkerbloom	*Sidalcea hickmanii* ssp. *anomala*	—	R	1B.2	Perennial herb; closed-cone coniferous forest and chaparral on rocky, serpentine soil; 600-800 meters in elevation; blooms May to June.	**Not expected.** No suitable habitat or soils are present and the site is greatly outside of the species' elevational range. Generally restricted to West Cuesta Ridge, but one record from Camp SLO at lower elevation.
Cuesta Ridge thistle	*Cirsium occidentale* var. *lucianum*	—	—	1B.2	Perennial herb; openings in chaparral, steep rocky slopes and disturbed roadsides; 500-750 meters in elevation; blooms April to June.	**Not expected.** No suitable habitat is present, the site is greatly outside of the species' elevational range and restricted distribution.
Dwarf soaproot	*Chlorogalum pomeridianum* var. *minus*	—	—	1B.2	Perennial bulbiferous herb; chaparral on serpentine soils; 305-1000 meters in elevation; blooms May to August.	**Not expected.** No suitable habitat or soils are present, and the site is greatly outside of the species' elevational range.
Eastwood's larkspur	*Delphinium parryi* ssp. *eastwoodiae*	—	—	1B.2	Perennial herb; chaparral and valley and foothill grassland generally in serpentine soils; 75-500 meters in elevation; blooms February to March.	**Not expected.** No suitable soils are present as there is no serpentine influence on the property. Several records in foothills surrounding the site, and the site is within the species' local distribution and elevational range. Not observed during surveys.
Hooked popcornflower	*Plagiobothrys uncinatus*	—	—	1B.2	Annual herb; chaparral, cismontane woodland, valley and foothill grassland, and coastal bluff scrub in sandy soils; 300-730 meters in elevation; blooms April to May.	**Not expected.** No suitable soils are present and the site is greatly outside of the elevational range of the species.
Hoover's bent grass	*Agrostis hooveri*	—	—	1B.2	Stoloniferous perennial herb; chaparral, cismontane woodland, and valley and foothill grassland habitats in sandy soils; 60-600 meters in elevation; blooms April to July.	**Not expected.** No suitable soils are present and the site is outside of the species' local distribution. Has been recorded surrounding the site, but generally in more mountainous areas with chaparral habitats and there are no records from the City of SLO area. Not observed during surveys.

Common Name	Scientific Name	Fed	CA	CRPR	Ecological Information	Evaluation of Occurrence/ Site Suitability / Local Records
Hoover's button-celery	*Eryngium aristulatum* var. *hooveri*	—	—	1B.1	Herb that can occur as either an annual or a perennial; vernal pools, seasonally wet grasslands, and roadside ditches; 3-45 meters in elevation; blooms June to August.	**Not expected.** No suitable seasonal wetland or topographic depression habitat present onsite. Records in the southern and southwestern San Luis Obispo area such as Tank Farm property. Species would have been seen during the surveys.
Irish Hills spineflower	*Chorizanthe aphanantha*	—	—	1B.1	Annual herb; openings in chaparral and restricted to serpentine; approx. 305 meters in elevation; blooms from April to August.	**Not expected.** Known only from a very restricted area in the Irish Hills to the southwest of San Luis Obispo; no suitable habitat or serpentine soils are present.
Jones' layia	*Layia jonesii*	—	—	1B.2	Annual herb; chaparral and valley and foothill grassland on clay or serpentine; 5-400 meters in elevation; blooms March to May.	**Not expected.** No suitable serpentine based soils are present onsite. The site is within the species' elevational range, and records from serpentine rock and soils are near the site, including Camp SLO, O'Connor Way, CalPoly, and an historic record at the base of Bishop Peak. Not observed during surveys.
La Panza mariposa-lily	*Calochortus simulans*	—	—	1B.3	Perennial bulbiferous herb; chaparral, cismontane woodland, lower montane coniferous forest, and valley and foothill grassland on sandy and often granitic soils and sometimes on serpentine; 325-1150 meters in elevation; blooms April through June.	**Not expected.** The site is slightly outside the local and elevational range of the species, frequent disturbance would preclude this species, and the site survey was conducted when the species was blooming in the area and was not seen.
Mesa horkelia	*Horkelia cuneata* var. *puberula*	—	—	1B.1	Perennial herb; chaparral, cismontane woodland, and coastal scrub on sandy or gravelly soils; 70- 810 meters in elevation; blooms February to September.	**Not expected.** No suitable soils or coastal scrub habitat are present. Site is within the species' distribution, but there are no records from the San Luis Obispo area. Not observed during surveys.

Common Name	Scientific Name	Fed	CA	CRPR	Ecological Information	Evaluation of Occurrence/ Site Suitability / Local Records
Miles' milk-vetch	*Astragalus didymocarpus* var. *milesianus*	—	—	1B.2	Annual herb; coastal scrub habitats with clay soils; 20-90 meters in elevation; blooms March to June.	**Not expected.** Potentially suitable soils are present and there are records in the vicinity from grassland habitats where there are other native species and/or mesic conditions. Surveys occurred during the bloom period for this species and it was not observed onsite.
Most beautiful jewelflower	*Streptanthus albidus* ssp. *peramoenus*	—	—	1B.2	Annual herb; chaparral, cismontane woodland, and valley and foothill grassland on serpentine soils; 94-1000 meters in elevation; blooms March to October.	**Not expected.** No suitable soils are present and the species' is usually at higher elevations than what occur onsite. Recorded from mountains and hills surrounding the site, but not observed during surveys.
Mouse-gray dudleya	*Dudleya abramsii* ssp. *murina*	—	—	1B.3	Perennial leaf succulent; chaparral, cismontane woodland and valley and foothill grassland on serpentine soils; 50-525 meters in elevation; blooms May to June.	**Not expected.** Species is restricted to serpentine rock outcrops, which are not present onsite. Perennial species would have been seen during the surveys.
Ojai fritillary	*Fritillaria ojaiensis*	—	—	1B.2	Perennial bulbiferous herb; broad-leaved upland forest, chaparral, cismontane woodland, and lower montane coniferous forest on rocky soils; 225-998 meters in elevation; blooms February to May.	**Not expected.** No suitable habitat or soils are present and the site is outside of the elevational range of this species. No fritillary species observed during the surveys.
Oso manzanita	*Arctostaphylos osoensis*	—	—	1B.2	Perennial evergreen shrub; chaparral and cismontane woodland on dacite porphyry buttes; 95-500 meters in elevation; blooms February to March.	**Not expected.** No suitable habitat or soils are present, and no manzanita shrubs were seen during the surveys.
Palmer's mondardella	*Monardella palmeri*	—	—	1B.2	Perennial herb; chaparral and cismontane woodland on serpentine soils; 200-800 meters in elevation; blooms June to August.	**Not expected.** No suitable soils are present and the site is outside of the elevational range of this species. Recorded in surrounding mountainous area.

Common Name	Scientific Name	Fed	CA	CRPR	Ecological Information	Evaluation of Occurrence/ Site Suitability / Local Records
Pecho manzanita	*Arctostaphylos pechoensis*	—	—	1B.2	Perennial evergreen shrub; coniferous forest, chaparral and coastal scrub on siliceous shale soils; 125-850 meters in elevation; blooms November to March.	**Not expected.** No suitable soils are present, the site is outside of the species' elevational range, no manzanita shrubs were seen during the surveys and the only record nearby has an imprecise location from 1970.
Pismo clarkia	*Clarkia speciosa* ssp. *immaculata*	E	R	1B.1	Annual herb; margins and openings of chaparral, cismontane woodland, and valley and foothill grassland in sandy soils; 25-185 meters in elevation; blooms May to July.	**Not expected.** Site is outside of the restricted distribution of this species and no sandy soils are present.
Saline clover	*Trifolium hydrophilum*	—	—	1B.2	Annual herb; marshes and swamps, mesic valley and foothill grassland, and vernal pools on alkaline soils; 0-300 meters in elevation; blooms April to June.	**Not expected.** Only a small area in the onsite drainage has mesic conditions and it was thoroughly surveyed. Last seen in the vicinity in 1998.
San Benito fritillary	*Fritillaria viridea*	—	—	1B.2	Perennial bulbiferous herb; chaparral and cismontane woodland on rocky serpentine slopes, streambanks and roadsides; 200-1525 meters in elevation; blooms March to May.	**Not expected.** No suitable habitat or soils are present, the site is outside of the species' elevational range, and the only records in the vicinity is from 1925 and 1964.
San Luis mariposa-lily	*Calochortus obispoensis*	—	—	1B.2	Bulbiferous, perennial herb; chaparral, coastal scrub and valley and foothill grassland on sandstone, serpentine and/or sandy soils; 75-730 meters in elevation; blooms May to July.	**Not expected.** No suitable serpentine based soils are present and although there are records in the general area surrounding the site, they are from more mountainous areas with rock outcroppings. Not observed during surveys.
San Luis Obispo ceanothus	*Ceanothus thyrsiflorus* var. *obispoensis*	—	—	1B.1	Perennial shrub; chaparral and cismontane woodland on dacite soils; 140-225 meters in elevation; blooms in June.	**Not expected.** Suitable habitat and soils are not present and the site is outside of the species' elevational range. Perennial shrub would have been seen during the surveys.

Common Name	Scientific Name	Fed	CA	CRPR	Ecological Information	Evaluation of Occurrence/ Site Suitability / Local Records
San Luis Obispo owl's-clover	*Castilleja densiflora* var. *obispoensis*	—	—	1B.2	Annual herb; meadows, seeps, and valley and foothill grassland sometimes on serpentine; 10-400 meters in elevation; blooms March to May.	**Not expected.** Suitable grassland habitat was searched repeatedly for this species during surveys. The site is within the documented elevational range and local distribution of the species, and several observations are recorded from near the site. Not observed during surveys.
San Luis Obispo sedge	*Carex obispoensis*	—	—	1B.2	Perennial herb; coniferous forest, chaparral, coastal prairie, coastal scrub, valley and foothill grassland, often on serpentine and clay soils in seeps; 10-820 meters in elevation; blooms April to June.	**Not expected.** No suitable serpentine based soils are present onsite. While numerous records are in the vicinity, all occurrences are at higher elevations and associated with serpentine based seeps along the Santa Lucia ridge, Irish Hills or other foothill locations. Not observed during surveys.
Santa Lucia manzanita	*Arctostaphylos luciana*	—	—	1B.2	Perennial evergreen shrub; chaparral and cismontane woodland on shale soils; 350-850 meters in elevation; blooms December to March.	**Not expected.** No suitable habitat or soils are present, the site is greatly outside of the species' elevational range, and no manzanitas were found during surveys.
Santa Margarita manzanita	*Arctostaphylos pilosula* (=*A. wellsii*)	—	—	1B.2	Evergreen perennial shrub; occurs in closed-cone coniferous forests, broad-leaved upland forest, cismontane woodland, and maritime chaparral sometimes on sandstone; ranges from 75 to 1100 meters in elevation; blooms December to May.	**Not expected.** No suitable soils are present, and no manzanitas were found during botanical surveys.
Straight-awned spineflower	*Chorizanthe rectispina*	—	—	1B.3	Annual herb; openings in chaparral, cismontane woodland, coastal scrub on granite sand or disintegrating shale and tolerates disturbance; 85-1035 meters in elevation; blooms April to July.	**Not expected.** No suitable habitat or soils are present, and only one record from nearby is from 1885. Not observed during surveys.

**E = Endangered; T = Threatened; R = Rare; '—' = no status; CRPR: Rank 1A - Presumed extirpated in California and either rare or extinct elsewhere; Rank 1B – Rare, threatened or endangered in California and elsewhere; Rank 2A – Presumed extirpated in California, but more common elsewhere; Rank 2B – Rare, threatened, or endangered in California, but more common elsewhere; Rank 3 - Plants needing more information, a review list; Rank 4 – Limited distribution, a watch list. Sources: California Natural Diversity Database (California Department of Fish and Wildlife 2020a); Special Vascular Plants, Bryophytes, and Lichens List (California Department of Fish and Wildlife 2020c); Inventory of Rare and Endangered Plants of California (California Native Plant Society 2020a); Information on Wild California Plants for Conservation, Education, and Appreciation (Calflora 2020).*

Common Name	Scientific Name	Fed	CA	CDFW	Ecological Information	Evaluation of Occurrence/ Site Suitability / Local Records
ANIMALS						
INVERTEBRATES						
Atascadero June beetle	*Polyphylla nubila*	—	—	—	Sandy soils in annual grassland, chamise chaparral, and oak woodland and savannah. Restricted to Atascadero and San Luis Obispo.	**Not expected.** Onsite soils are not sandy and the only record from the vicinity is from 1956 and has an imprecise location.
California linderiella	*Linderiella occidentalis*	—	—	—	Seasonal pools or vernal pools in grasslands or in sandstone depressions. Can occur in very small pools and are heat tolerant.	**Not expected.** No topographic depressions capable of holding water are present on this sloping site, and species does not occur in flowing water. Recorded from Camp SLO.
Monarch butterfly	*Danaus plexippus* pop. 1	—	—	— (overwinter-ing population)	Adults feed on the nectar of various blooming plants. During breeding can be found in fields, pastures, residential areas, grassland and scrub. Eggs are laid on and caterpillars feed on milkweed. Overwinters in wind-protected tree groves of eucalyptus, Monterey pine and cypress along the coast.	**Present.** Individuals were seen flying around the study area during the surveys. Overwintering onsite in the tall eucalyptus and dense riparian is unlikely but potential since overwintering sites have been documented in relatively small groves within urban areas of SLO.
Obscure bumble bee	*Bombus caliginosus*	—	—	—	Found on ceanothus, coyote brush, thistles, sweet peas, lupines, willows, clover and blackberry. Queens emerge from hibernation in late-January, workers appear in early-March, and males emerge in April. Colonies dissolve in late-October, with only the new queens surviving.	**Potential.** Potential host plants are in the study area. There are historic records from the vicinity, but little is known about this species.
San Luis Obispo pyrg	*Pyrgulopsis taylori*	—	—	—	Freshwater snail with planktonic larvae. Also has been recorded on rocks and in leaf litter.	**Potential.** Marginal habitat may be present in the onsite drainage, but it is intermittent and appears to dry down on a seasonal basis. Has been recorded nearby in Brizziolari and Chorro creeks, but those drainages have a larger watershed and are more perennial in nature.

Common Name	Scientific Name	Fed	CA	CDFW	Ecological Information	Evaluation of Occurrence/ Site Suitability / Local Records
Vernal pool fairy shrimp	*Branchinecta lynchi*	T	—	—	Grasslands with temporary ponded water. Inhabits small clear-water depressions in rock, vernal pools and swales, as well as anthropogenic habitats such as tire ruts, dozer scrapes and railroad pools. Needs standing water for at least 18 days to complete its lifecycle.	**Not expected.** No topographic depressions capable of holding water are present, and species does not occur in flowing water. Known to occur in the south side of San Luis Obispo around the Tank Farm, but no records from along Hwy. 1.
Western bumble bee	*Bombus occidentalis*	—	CE	—	Generalist foragers and found on agricultural crops such as tomatoes, peppers, cranberries, alfalfa, avocado, apples, cherries, blackberries, and blueberries. Only females survive the winter and establish new colonies the following spring. Colonies contain one queen, female workers, larvae, and when the season nears, male and female reproductive members. Nests are underground in cavities or burrows.	**Unlikely.** Species has undergone substantial range reduction, and no longer occurs in central California. Historic record from 1936 from south of San Luis Obispo.
FISH						
South-central California coast DPS steelhead	*Oncorhynchus mykiss irideus* pop. 9	T	—	—	Adults spawn in freshwater streams with clear, well-oxygenated, cool water and clean gravel substrate. Also require instream cover (branches, logs) and streamside vegetation. Juveniles rear in freshwater reaches or lagoons before going to the ocean to mature, and then return to freshwater to reproduce.	**Not expected.** No suitable habitat is present in the study area. The reach of the unnamed drainage onsite is much too ephemeral to be used by this species. Creek is channelized downstream and traverses highly disturbed urban areas. Documented to occur in Chorro and San Luis Obispo creeks.

Common Name	Scientific Name	Fed	CA	CDFW	Ecological Information	Evaluation of Occurrence/ Site Suitability / Local Records
AMPHIBIANS/REPTILES						
Blainville's (=coast) horned lizard	*Phrynosoma blainvillii*	—	—	SSC	Grasslands, sandy washes, coastal scrub, chaparral, coniferous forest and woodlands with patches of open areas for sunning and bushes for cover. Often with loose sandy soils for burial, but also uses small mammal burrows. Preys on native species of ants and other small invertebrates.	**Not expected.** Marginally suitable plant communities are present because biomass is high and open areas are lacking, except in landscaped areas. Very little suitable habitat surrounds the site, and clay soils are unsuitable. Generally absent from urban areas due to non-native ants associated with human presence. No records nearby.
California red-legged frog	*Rana draytonii*	T	—	SSC	Forages and breeds in streams with deep slow-moving pools, stock ponds, reservoirs, springs, lagoons, and marshes; usually with emergent or riparian vegetation but also found at sites lacking vegetation. Uses riparian and various upland habitats in winter and for dispersal.	**Unlikely.** The onsite drainage does not have sufficient water depth to support any lifestage. Has been recorded historically in Brizziolari Creek, but not observed since 1939. Known to occur throughout the Chorro Creek watershed. Potentially suitable ponds within 1 mile seen on aerial imagery to the NW and on CalPoly, but urban development and Hwy. 1 are likely significant barriers to upland movement. No suitable habitat to the south, so very unlikely to disperse or migrate through the site.
Coast Range newt	*Taricha torosa*	—	—	SSC	Primarily terrestrial in forests, oak woodlands, chaparral, and rolling grassland. Breeds in ponds, reservoirs and pools of clear streams with rocky substrates and cascades.	**Not expected.** Onsite drainage does not have sufficient amount of water or appropriate rocky habitat with pools and cascades. Has been recorded historically from Brizziolari Creek but not found on CalPoly for several decades.

Common Name	Scientific Name	Fed	CA	CDFW	Ecological Information	Evaluation of Occurrence/ Site Suitability / Local Records
Foothill yellow-legged frog - Central Coast population	*Rana boylii*	—	E	SSC	Rocky streams and rivers with open sunny banks, surrounded by forests, chaparral and woodlands. Sometimes found in isolated pools, backwaters, and spring-fed pools. Reproduction is exclusively in streams and rivers. Usually found near water and diurnal.	**Not expected.** No suitable habitat is present on or near the site. This species is considered to be extirpated south of Rocky Point in far northwestern SLO County. Historically recorded in Brizziolari Creek and Reservoir Canyon, but not found since 1958.
Lesser slender salamander	*Batrachoseps minor*	—	—	SSC	Forests composed of mixed oak, tanbark oak, sycamore and bay laurel with moist conditions. Found above 400 m elevation. Active above ground on warm, wet nights but otherwise is underground or under cover objects.	**Not expected.** Species has a very restricted distribution along the ridge of the Santa Lucia Range, and site is well below the elevational range and outside of the distribution of the species.
Northern California legless lizard	*Anniella pulchra*	—	—	SSC	Beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, oak woodland, and stream terraces with riparian vegetation. Fossorial species requires moist, loose soils or leaf litter with plant cover or surface objects (rocks, boards, logs, etc.). Can occur in residential areas.	**Potential.** Soils onsite are dense clay and appear to be marginally suitable for the species since this is a highly fossorial species that typically occurs in sandy soils with coastal scrub, chaparral and oak woodland habitats. Riparian habitat is present onsite and includes oak trees with dense leaf litter and the area along the creek corridor could potentially support this species. Legless lizards have been recorded throughout the general area, but few records nearby.
Southwestern pond turtle (=western pond turtle)	*Actinemys pallida* (=*Emys marmorata*)	—	—	SSC	Ponds, lakes, rivers, streams, marshes, brackish lagoons, and irrigation ditches with a mosaic of vegetation and open areas for basking. Uses upland areas for nesting and in winter, including woodland, forest, grassland, chaparral, and grasslands.	**Not expected.** No suitable aquatic habitat is present on or near the site. The onsite drainage is too ephemeral and shallow to support this species. The nearest pond seen on aerial photography is well beyond (>4000 feet) the species' distance for upland habitat use. Would not cross Hwy. 1 or urban areas surrounding site. Recorded from Stenner and Chorro creeks on the opposite side of Hwy. 1.

Common Name	Scientific Name	Fed	CA	CDFW	Ecological Information	Evaluation of Occurrence/ Site Suitability / Local Records
BIRDS						
Bald eagle	*Haliaeetus leucocephalus*	—	E	FP	Open areas near water where they mainly feed on fish, and may also eat birds, amphibians, reptiles, small mammals, and crabs; nests in large mature trees such as ponderosa pine or occasionally on cliffs or the ground, within 1 mile of a large water source; occurs year-round in this area.	**Potential.** Could fly over the site and perch or roost on large trees periodically. Has been recorded in eBird from numerous locations in the vicinity.
Burrowing owl	*Athene cunicularia*	—	—	SSC (burrow sites & some wintering sites)	Open treeless areas with low sparse vegetation such as grasslands, deserts, pastures, agricultural fields, airports, and artificial embankments where they prey on small vertebrates and various invertebrates. Nests in burrows created by other animals with nearby lookouts such as fence posts or shrubs. Formerly occurred year-round in this area, but now restricted to winter.	**Potential.** Could occur as a transient during winter. Suitable grassland habitat is present onsite, but human presence reduces the likelihood that species would use the site for more than periodic foraging. Could use fences as a vantage point. Mound of ground squirrel burrows was seen onsite that could be used. Has been recorded at Camp SLO and on CalPoly.
California horned lark	*Eremophila alpestris actia*	—	—	WL	Areas with sparse vegetation or bare ground in prairies, deserts, tundra, beaches, dunes, airports, plowed fields and heavily grazed pastures where they eat seeds and insects. Nesting is on bare ground. Occurs year-round in this area.	**Potential.** Could occur onsite in the Annual Grassland habitat. Has been recorded at Camp SLO and in eBird at many locations in the general area.
Cooper's hawk	*Accipiter cooperii*	—	—	WL (nesting)	Mature and open woodlands including oak forest, conifers and riparian; may also be found in suburban areas with tall trees. Feeds on birds, small mammals, reptiles and amphibians. Nesting is in dense woodlands. Occurs in this area year-round.	**Potential.** Could forage, nest or roost onsite in the Riparian or Ornamental habitats. They have been recorded at numerous locations close to the site on CalPoly, Bishop's Peak and in urban areas nearby in eBird.

Common Name	Scientific Name	Fed	CA	CDFW	Ecological Information	Evaluation of Occurrence/ Site Suitability / Local Records
Ferruginous hawk	*Buteo regalis*	—	—	WL (wintering)	Open country such as grasslands, sagebrush, saltbush shrubland, and edges of pinyon-juniper forest where they prey on small mammals. Nests on lone trees, cliffs, utility poles, and shrubs from ground-level to 65-feet high. Occurs in this area during winter.	**Potential.** Potential foraging habitat is present in Annual Grassland habitat onsite, even though it is rather small in areal extent and does not support extensive prey base. Could perch or roost in Riparian or Ornamental habitats. Does not nest in this area. There are several observations from open grassland habitats surrounding the site in eBird, but these areas are much more extensive and connected to other open space areas.
Golden eagle	*Aquila chrysaetos*	—	—	FP, WL (nesting & wintering)	Uncommon resident of mountainous and valley-foothill areas. Foraging typically occurs in open terrain where they prey on small mammals. Nesting usually occurs on cliff ledges, and less commonly in large trees or on structures such as electrical towers. Occurs in this area year-round.	**Potential.** Although close to urban development, species could forage in Annual Grassland onsite and slight possibility to roost or nest in the large eucalyptus or redwoods, but proximity to human activity decreases chance. No large stick nests observed onsite characteristic of raptor use. Has been recorded at numerous locations on CalPoly and in neighborhoods close proximity to the site.
Grasshopper sparrow	*Ammodramus savannarum*	—	—	SSC	Grasslands, prairies, hayfields, and open pastures with little scrub cover and some bare ground where they prey on grasshoppers and other invertebrates. Nests on the ground at the base of clumps of grass within a large patch of tall grass. Occurs in this area during breeding season.	**Potential.** Potential grassland habitat is present onsite for foraging and breeding. Has been recorded at numerous locations surrounding the site in eBird.

Common Name	Scientific Name	Fed	CA	CDFW	Ecological Information	Evaluation of Occurrence/ Site Suitability / Local Records
Great blue heron	*Ardea herodias*	—	—	— (nesting colony)	Freshwater and saltwater marshes, also foraging in grasslands and agricultural fields. Nesting colonies are near lakes, ponds and wetlands bordered by forests. Nests are placed mainly in trees, but may also nest on the ground, in bushes or artificial structures. Occurs year-round in this area.	**Potential.** Individuals could forage periodically in the Annual Grassland, but no suitable aquatic habitat is present and would not nest onsite. There are numerous records in eBird from near the site in the residential areas and on CalPoly.
Great egret	*Ardea alba*	—	—	— (nesting colony)	Forages in marshes, swamps, streams, rivers, ponds, lakes, lagoons, tidal flats, canals, ditches, flooded fields, and sometimes in upland where they prey on fish, amphibians, reptiles, crustaceans, and invertebrates. Roosts communally in trees. Nesting colonies are on lakes, ponds, marshes, and estuaries, but does not nest in this area. Occurs in this area during non-breeding season.	**Potential.** Species forages in upland areas away from water, and there are a high number of observations in eBird in close proximity to the site, including small patches of habitat within urban SLO. Could forage onsite in Annual Grassland. Does not nest in this area.
Loggerhead shrike	*Lanius ludovicianus*	—	—	SSC (nesting)	Open country with low vegetation and well-spaced shrubs or trees such as coastal scrub, grasslands, agricultural fields, pastures, riparian areas, desert scrub, savannas, prairies, golf courses, and along roadsides where they prey on insects, amphibians, reptiles and small mammals. Nests in trees, shrubs, or brush piles. Occurs in this area year-round.	**Potential.** Suitable Annual Grassland, Riparian and Ornamental are present onsite. Could forage or nest onsite. There are several observations in eBird from CalPoly, downtown SLO, and Camp SLO.
Merlin	*Falco columbarius*	—	—	WL (wintering)	Coastlines, open grasslands, savannas, woodlands, lakes, wetlands, and montane conifer forests where they prey on small birds, small mammals and insects. Nests in existing corvid or hawk nest but does not nest in California. Occurs in this area during winter.	**Potential.** Suitable foraging habitat is present in Annual Grassland onsite, but does not nest in this area. Has been recorded on CalPoly and in downtown San Luis Obispo in eBird.

Common Name	Scientific Name	Fed	CA	CDFW	Ecological Information	Evaluation of Occurrence/ Site Suitability / Local Records
Northern harrier	*Circus cyaneus*	—	—	SSC (nesting)	Large areas of wetlands and grasslands with low vegetation where they prey on small mammals, amphibians, reptiles and birds. Nesting is in marshes, grazed meadows, and desert shrubland where they nest on the ground in a dense clump of vegetation such as willows, grasses, sedge, bulrushes or cattails. Occurs year-round in this area.	**Potential.** There are numerous records in close proximity to the site in eBird, including documented breeding along the coast. Suitable foraging and nesting habitat are present onsite, but nesting is unlikely due to human disturbance surrounding the property.
Prairie falcon	*Falco mexicanus*	—	—	WL (nesting)	Grasslands, desert shrubland, tundra, coastal scrub, feedlots, and agricultural fields where they feed on small mammals, insects and birds. Nests on high cliff ledges, steep bluffs, trees, or on buildings or utility poles. Occurs year-round in this area.	**Potential.** Species could forage in Annual Grassland onsite, and potentially could nest in the tall eucalyptus or redwoods. No stick nests indicative of raptors observed onsite. Has been recorded at CalPoly and various locations on the outskirts of city limits.
Sharp-shinned hawk	*Accipiter striatus*	—	—	WL (nesting)	Forages along the edges of dense mixed woodlands and forests where they prey on birds. Nests are in dense forests with closed canopies in conifer trees. Occurs in winter in this area.	**Potential.** Suitable dense, although small, patches of forest are onsite. Has been recorded at numerous locations surrounding the site during migration in eBird, including the neighborhoods surrounding the site. Could occur as a transient while migrating, but does not nest in this area.
Snowy egret	*Egretta thula*	—	—	— (nesting colony)	Lagoons, freshwater wetlands, ponds, temporary pools, and wet fields where they prey on aquatic animals and insects. Nesting colonies are in dense vegetation of islands and marshes. Occurs in this area outside of the breeding season.	**Potential.** Could forage onsite in Annual Grassland. Does not nest in this area. Species forages in upland areas away from water, and there are observations at CalPoly in eBird.

Common Name	Scientific Name	Fed	CA	CDFW	Ecological Information	Evaluation of Occurrence/ Site Suitability / Local Records
Tricolored blackbird	*Agelaius tricolor*	—	T	SSC (nesting colony)	Forages in a variety of habitats including pastures, agricultural fields, rice fields, and feedlots. Nests colonially in freshwater marshes with tules or cattails, or in other dense thickets of willow, thistle, blackberry, or wild rose in close proximity to open water. Occurs year-round in this area.	**Potential.** Nesting colonies have been recorded at several ponds along Hwy. 1 nearby. Could occur onsite as a transient while foraging, but would not nest onsite due to lack of sufficient water source or emergent vegetation to form colonial nests.
White-tailed kite	*Elanus leucurus*	—	—	FP (nesting)	Savannas, open woodlands (oak or pine), riparian forest, marshes, desert grasslands, and fields where they prey on small mammals, birds, lizards, and insects. Nests and roosts in the edges of forests or in tall isolated trees. Occurs in this area year-round.	**Potential.** Has been recorded at numerous locations on the CalPoly ag lands in close proximity to the site and in urban SLO, in eBird. Suitable foraging habitat is present onsite, and could nest or roost in the Riparian or Ornamental habitats. No stick nests present indicative of raptors.
Yellow-billed magpie	*Pica nuttalli*	—	—	— (nesting & communal roosts)	Permanent residents of open oak woodland and savannah, riparian, valley hardwood-conifer, residential and agricultural areas, pastures and orchards. Feed on the ground on insects, invertebrates, trash, carrion, acorns, fruit, grain, nestlings, eggs, earthworms, ticks and live rodents. Nests and roosts in small colonies high in large trees. Occurs year-round in this area.	**Potential.** Individuals could occur periodically onsite. There are records from CalPoly, Camp SLO, and parks in San Luis Obispo, but no communal roosts are recorded nor were any nest occurrences observed that would indicate this species has occurred onsite. Generally more common north of Cuesta Grade, but does frequent Morro Bay. Not observed during surveys of the site.
Yellow warbler	*Setophaga petechia*	—	—	SSC	Wetland and riparian habitats with willows, cottonwoods, aspens, sycamores and alders where they eat insects. Also uses gardens, orchards and roadside thickets. Nesting is in shrubs or small trees. Occurs year-round in this area.	**Potential.** Could forage or nest in the Riparian or Ornamental habitats onsite. Has been recorded on a neighboring property and at other locations nearby in eBird. Not observed during surveys of the site during the spring breeding season.

Common Name	Scientific Name	Fed	CA	CDFW	Ecological Information	Evaluation of Occurrence/ Site Suitability / Local Records
MAMMALS						
American badger	*Taxidea taxus*	—	—	SSC	Open grasslands, fields and the edge of scrub and woodland habitats; requires dry loose soils for burrowing and shelter and feeds on a variety of small mammals such as California ground squirrel and pocket gopher.	**Unlikely.** A fragment of potentially suitable habitat is present onsite, and a small mound of ground squirrel burrows was seen, but the highly urbanized nature of the surrounding area likely precludes their occurrence. Highway 1 would be a barrier to their movement. Potentially could come in from grassland areas to the northwest, but there are no records from this area along Hwy. 1. No dens were seen during the surveys.
Big free-tailed bat	*Nyctinomops macrotis*	—	—	SSC	Prefers rugged, rocky terrain and canyons. Roosts in buildings, caves, tree hollows, crevices in cliffs or rock outcrops. Feeds on moths. Occurs in California only during the winter, and is rare, found in areas with rugged rocky canyons.	**Not expected.** No suitable rocky habitat is present onsite, and the only record in the vicinity is from 1981. Low probability to occur as a transient during migrations.
Monterey dusky-footed woodrat	*Neotoma macrotis luciana*	—	—	SSC	Builds large stick middens in chaparral and woodland habitats of moderate canopy and moderate to dense understory. Occurs in the Coast Ranges from Monterey Bay to Los Osos/Atascadero. Reaches its eastern extent at Camp Roberts where it contacts *Neotoma fuscipes bullatior* and southern extent where *Neotoma macrotis macrotis* occurs.	**Unlikely.** The subspecies of dusky-footed woodrat in the San Luis Obispo area is reported to be *Neotoma macrotis macrotis*. No records were in the CNDDB from the vicinity. Several wood rat nests/middens were observed in the creek corridor that could be another species.

Common Name	Scientific Name	Fed	CA	CDFW	Ecological Information	Evaluation of Occurrence/ Site Suitability / Local Records
Morro Bay kangaroo rat	*Dipodomys heermanni morroensis*	E	E	FP	Restricted to relict, stabilized sand dunes in Los Osos and Baywood Park, where they construct burrows in areas with low slope and compacted sandy soil. Associated with early seral stages of coastal dune scrub where there are patches of bare ground. Feeds on seeds. Has not been seen in the wild since 1986.	**Not expected.** Species is restricted to sand dune sheet that is not present onsite, and coastal scrub onsite is too dense. Site is outside the local distribution of the species. Species may be extinct.
Pallid bat	*Antrozous pallidus*	—	—	SSC	Open dry habitats including deserts, grasslands, shrublands, woodlands, and forests. Roosts in rocky outcrops, caves, crevasses, mines, hollow trees, and buildings that moderate temperature. Night roosts on porches and open buildings.	**Potential.** Could forage over the site and night roost in the structures. Has been recorded on Camp SLO and the city downtown area.
San Diego desert woodrat	*Neotoma lepida intermedia*	—	—	SSC	Moderate to dense coastal scrub, especially in rocky areas with slopes.	**Potential.** Woodrat middens were observed during the surveys, and could be from the San Diego or big eared (*Neotoma macrotis macrotis*) woodrat. Species has been documented at Cerro San Luis and on Diablo Canyon property, reaching the northern limit of its range in this area.
Townsend's big-eared bat	*Corynorhinus townsendii*	—	—	SSC	Desert scrub, grassland, sagebrush, chaparral, oak woodlands, riparian and coniferous forests; prefers mesic habitats and closely tied to rock cliffs with crevasses. Roosts in caves, cliffs, mines, tunnels and bridges.	**Potential.** Could forage onsite, but no structures for roosting are present. Roost sites have been recorded nearby at Camp SLO and Chorro Creek.
Western mastiff bat	*Eumops perotis californicus*	—	—	SSC	Desert scrub, coastal scrub, chaparral, oak woodland, and coniferous forest. Roosts colonially in rock crevasses, buildings, tunnels and in trees. Does not undergo seasonal migrations or prolonged hibernation, and is present in this area year-round.	**Potential.** Suitable foraging habitat is present onsite, and could roost in buildings or large trees. Has been recorded in the San Luis Obispo area.

**E = Endangered; T = Threatened; C = Candidate; SSC = Species of Special Concern; FP = Fully Protected; WL = Watch List; '—' = no status; California Natural Diversity Database (California Department of Fish and Wildlife 2020a); Special Animals List (California Department of Fish and Wildlife 2019); California Wildlife Habitat Relationships System (CDFW 2020d); A Guide to the Amphibians and Reptiles of California (California Herps 2020); eBird (The Cornell Lab of Ornithology 2020a); All About Birds (The Cornell Lab of Ornithology 2020b); Guide to North American Birds (Audubon 2020).*

SENSITIVE NATURAL COMMUNITIES	
Central Coast Arroyo Willow Forest — State Rarity Rank S3.2	**Absent.** Dense closed-canopy forest characterized by arroyo willow (*Salix lasiolepis*) and/or Pacific willow (*S. lasiandra*). Occurs on moist to saturated sandy or gravelly soil in floodplains, low-gradient stream reaches and dune slack ponds. The riparian habitat onsite is dominated by coast live oak, and is more closely aligned with Central Coast Live Oak Riparian Forest.
Central Coast Live Oak Riparian Forest — State Rarity Rank 3.2	**Present.** Band of riparian on drier, outer floodplains along perennial streams between the more mesic cottonwood or willow-dominanted communities and more xeric chaparral. Dominated by coast live oak (*Quercus agrifolia*) with a relatively open understory of grasses. Other species in the understory include coyote brush (*Baccharis pilularis*), California rose (*Rosa californica*), fragrant sumac (*Rhus aromatica*), and blue elderberry (*Sambucus mexicana*). The riparian habitat onsite is dominated by coast live oak and and red willow (*Salix laevigata*), and is consistent with this community.
Central Coast Riparian Scrub — State Rarity Rank S3	**Absent.** A dense, shrubby streamside thicket dominated by any of several species of willows (*Salix* spp.) and has coyote brush (*Baccharis pilularis*) as a secondary component. Occurs on sand or gravel bars along rivers and streams with ground water close to the surface. Also present around dune slack ponds. The riparian habitat onsite is more closely aligned with Central Coast Live Oak Riparian Forest due to the dominance of coast live oaks.
Central Dune Scrub — State Rarity Rank S2.2	**Absent.** Restricted to coastal strip on stabilized backdunes. It is composed of low-growing scattered shrubs, subshrubs and herbs and is indicated by the presence of mock heather (*Ericameria ericoides*), beach blue lupine (*Lupinus chamissonis*), and beach sagewort (*Artemisia pycnocephala*). Site is located away from the coastline and this community is not present.
Central Foredunes — State Rarity Rank S1.2	**Absent.** Areas of sand accumulation that are exposed to onshore winds and sparsely vegetated by suffrutescent plant species including sand verbena (*Abronia* sp.), sea rocket (*Cakile* sp.), and primrose (*Camissonia* sp.). Site is located away from the coastline and beaches and this community is not present.
Central Maritime Chaparral — State Rarity Rank S2.2	**Absent.** Occurs on well-drained, sandy soils within the summer fog zone. Composed of sclerophyll shrubs dominated by one or more species of manzanita (*Arctostaphylos* spp.). No manzanita species occur on the site and this community is not present.

SENSITIVE NATURAL COMMUNITIES	
Coastal and Valley Freshwater Marsh — State Rarity Rank S2 and S3	**Absent.** Occurs in permanently flooded sites with freshwater and lacking significant flow, dominated by perennial, emergent vegetation such as bulrushes (*Scirpus* sp. and *Schoenoplectus* sp.) and cattails (*Typha* sp.). No areas of perennially ponded water were present, and no emergent vegetation was present onsite.
Coastal Brackish Marsh — State Rarity Rank S2.1	**Absent.** Occurs along the inland edges of coastal bays, lagoons and estuaries at the interface between saltwater and freshwater. Salinity may vary due to tides and seasonal freshwater runoff. It has dense cover by perennial emergent species such as bulrushes (*Scirpus* sp. or *Schoenoplectus* sp.), broadleaf cattail (*Typha latifolia*), sedges (*Carex* spp.) and saltgrass (*Distichlis spicata*). The site occurs away from the coast and does not have brackish water habitat.
Freshwater Seep — State Rarity Rank S3.2	**Present.** Occurs in permanently moist or wet soil that seeps from surfacing groundwater or water table, usually within grassland or meadow communities. Composed of mainly perennial herbs, especially sedges (*Carex* spp.) and rushes (*Juncus* spp.). Plant species consistent with this community were observed along the drainage onsite, beyond the edge of the riparian habitat and surrounded by grassland, where mesic conditions in the swale upstream from the site supported common spikerush (*Eleocharis macrostachya*) and brown-headed rush (*Juncus phaeocephalus*).
Northern Coastal Salt Marsh — State Rarity Rank S3.2	**Absent.** This community occurs in sheltered inland margins of bays, lagoons and estuaries. These areas are subject to regular tidal inundation of salt water for at least part of the year. Salt-tolerant hydrophytes up to 1 meter tall for moderate to dense stands. Characteristic species include fleshy jaumea (*Jaumea carnosa*), Pacific cordgrass (*Spartina foliosa*), and pickleweed (*Salicornia* sp.). The site occurs away from the coast and tidally influenced habitat is not present.
Northern Interior Cypress Forest — State Rarity Rank S2.2	**Absent.** Occurs on dry, rocky, and often serpentine soils. Stands are open and scrubby, being maintained by fires. It is dominated by one or more native cypress species (*Hesperocyparis* spp.). Suitable soils and cypress are not present onsite.
Serpentine Bunchgrass — State Rarity Rank S2.2	**Absent.** Restricted to areas with serpentine soils. Dominated by native perennial bunchgrasses and herbs with low total cover. Characteristic species include needlegrass (*Stipa* spp.), California poppy (*Eschscholtzia californica*), and small fescue (*Festuca microstachys*), with a higher percentage of native grasses compared to other California grassland communities. No suitable serpentine soils occur, which is required to support this community.

SENSITIVE NATURAL COMMUNITIES	
Valley Needlegrass Grassland — State Rarity Rank S3.1	**Absent.** Often occurs on clay soils that are moist or saturated in winter and very dry in the summer. It is dominated by purple needlegrass (*Stipa pulchra*), but may have higher percent cover overall by native and introduced annual grassland species. Patchy occurrences of purple needlegrass were present in grassland areas on either side of the unnamed drainage, but were not at a sufficient density to map as this habitat type. Further north offsite were larger swaths of purple needlegrass that extended onto the hillside below existing residences.
Vernal Marsh — State Rarity Rank S2	**Absent.** Vegetated by low, annual herbs such as sedges (*Carex* spp.) and rushes (*Juncus* spp.). Has marshy conditions or standing water following winter rains but is reduced or completely dry by summer. Often found at the transition between Coastal and Valley Freshwater Marsh and drier upland grassland. Species characteristic of this community were present at the northern edge of the property along the drainage, but more closely aligned with Freshwater Seep due to surfacing groundwater.

Sources: Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1986); California Natural Community List (California Department of Fish and Wildlife 2020b); California Natural Diversity Database (California Department of Fish and Wildlife 2020a).

DESIGNATED CRITICAL HABITAT	
California Red-legged Frog	**Present.** Unit SLO-3 is present in the area that the study site occurs. Onsite drainage does not contain critical habitat attributes and was determined to not support suitable habitat for this species.

Source: Threatened and Endangered Species Active Critical Habitat Report (United States Fish and Wildlife Service 2020b).