



Preparer Criteria

Qualified Biologist

Biological report preparers must be Qualified Biologists who meet the following criteria:

- **Qualified Biologist.** A person with the appropriate education, training, and experience to conduct biological surveys, monitor Project activities that have the potential to affect biological resources, provide construction worker education programs related to the protection of biological resources, and supervise or perform other tasks related to biological resources; possesses a Bachelor of Science degree or Bachelor of Arts degree in biology, ecology, or a related environmental science; and has at least five years of professional experience that requires knowledge of natural history, habitat affinities, and identification of flora and fauna species, and relevant local, State, and federal laws and regulations governing the protection of biological resources.
- Biological report preparers must also meet the following California Department of Fish & Wildlife (CDFW) qualifications for botanical field surveyors who analyze sensitive natural communities, as described in their Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (dated March 20, 2018).

Biological Resources Report Requirements

All Biological Resources Reports must comply with the following standardized requirements:

Project Overview

The project overview should include relevant information:

- The subject property's Assessor Parcel Numbers (APNs); information on the parcel's zoning and land use patterns are located on the City of Los Angeles [Zone Information and Map Access System \(ZIMAS\)](#) platform
- Topographic maps, which can be found through, but are not limited to, clipped portions of the United States Geological Survey (USGS) 7.5-minute quadrangle maps (standard 1:24,000 map scale)

- Cite whether there are any the following are located on or proximate to the project site, as identified in CDFW's [Biogeographic Information and Observation System \(BIOS\)](#) platform (see layers under the Land Ownership tab):
 - CDFW Owned and Operated Lands and Conservation Easements
 - California Protected Areas Database (CPAD) Holdings
 - California Conservation Easement Database (CCED)

Literature Review

Flora / Fauna

The literature review should include relevant information from all of the following databases:

- Federally-listed species with ranges that fall within the project site boundaries, using the U.S. Fish and Wildlife Service (USFWS) [Information, Planning, and Conservation System \(IPaC\) database](#), if they are identified as a(n):
 - Endangered, Threatened or Candidate Species (and their Critical Habitat, if any) under the federal Endangered Species Act
 - Birds of Conservation Concern listed by the USFWS
- State-listed species or natural communities that have:
 - Recorded occurrences and/or presumed extants within a nine-quad search of the project site, based on positive detection results available from one or more of the following:
 - CDFW's [California Natural Diversity Database \(CNDDDB\)](#)
 - California Native Plant Society (CNPS) Rare Plant Inventory
 - Calflora Observation Search
 - Medium or high habitat suitability scores within the project site based on expert opinion models from CDFW's [California Wildlife Habitat Relationships \(CWHR\) database](#).
 - Provide the "A List of Species for a Single Situation" which can be generated by using the project address on the CWHR platform using the "Single Situation" query type, set for "Los Angeles" County, select all [Habitat Types](#) observed on-site, set the Suitability Threshold to "Medium" for Reproduction, Cover and Feeding, set the Special Status to "All Special Status Species", and run the query. The crosswalk for CalVeg classification to CWHR Habitat Types can be found [here](#).

Species should only be included if they are identified as any of the following:

- Endangered, Threatened or Candidate Species under the California Endangered Species Act
- Rare Species under the California Endangered Species Act and the Native Plant Protection Act
- California Rare Plant Ranked Species (Ranks 1-3) listed by the California Native Plant Society
- Global & State Ranked Species (Ranks 1-3) listed by NatureServe
- Fully Protected Animals listed by CDFW
- Species of Special Concern listed by CDFW

- Sensitive Natural Communities listed by CDFW
- California Terrestrial and Vernal Pool Invertebrates of Conservation Priority listed by CDFW
- Migratory Birds listed in either the federal Migratory Bird Treaty Act (MBTA) and/or the state Migratory Bird Protection Act (MBPA), only if they are expected to nest on or adjacent to the project site
- Known Environmental Sensitive Habitat Areas (ESHA) occurring within a 500-foot radius of the project site, identified in any of the following:
 - [Venice Coastal Zone Specific Plan](#)
- ESHAs identified in Local Coastal Plans by other agencies (e.g., County of Los Angeles, [City of Malibu](#)) Documentation and testimonials on sightings from neighbors, agencies (e.g., National Park Service for mountain lions provides [2013 telemetry locations](#) and [2016 home ranges](#)), and community science platforms (e.g. [iNaturalist](#) and [eBird](#))

Wildlife Movement

The literature review should describe the extent of habitat connectivity between on and off-site lands, including relevant information from any applicable references from the following:

- [USFWS National Wetlands Mapper](#)
- [California Essential Habitat Connectivity Project](#)
- South Coast Missing Linkages Program
 - [Regional Report](#)
 - [Linkage Design for the Santa Monica - Sierra Madre Connection](#)
- [Eastern Santa Monica Mountains Natural Resource Protection Plan](#) (ESMM NRPP) and the Santa Monica Mountains [Habitat Linkages Planning Maps](#) and other maps adopted by the Santa Monica Mountains Conservancy (SMMC). Discuss potential project effects on applicable habitat blocks and nearby habitat linkages.
- [Protected Areas for Wildlife \(PAWs\) & Wildlife Movement Pathways \(WMPs\) Report](#) dated February 2021. Discuss potential project effects on nearby PAWs and WMPs. If the project site is located within a PAW and/or WMP, then also discuss whether any of the selection criteria for PAWs (page 9) or potential opportunities for WMPs (page 107 and Appendix G) apply to the individual project site. If not, discuss any specific factors that disqualify the individual site from selection as a PAW and/or WMP
- Previous Biological Reports prepared for either the project site or nearby project sites, if available

Water Resources

The literature review should include relevant information from any applicable references from the following:

- [U.S. Geological Survey \(USGS\) Water Resources](#)
- [USFWS National Wetlands Mapper](#)

Field Analysis

All field analyses should adhere to the following requirements:

- The entire project site should be surveyed for flora, fauna, wildlife corridors, and water resources. Adjoining properties should also be surveyed where direct or indirect project effects could occur, such as those from fuel modification, herbicide application, invasive species, and altered hydrology. Descriptions of brush clearance practices should delineate existing fuel modification zones from new zones required for the proposed project. The entire project site must be walked to the extent physically possible. A binocular survey should also be conducted of the surrounding area. Note which portions of the field surveying were conducted through binoculars or other methods due to dangerous terrain or trespassing issues.
- Surveys should be conducted within 12 months of report submission. The date, time of day, duration of the site visit, and weather conditions should be recorded for all field visits conducted. City staff may request additional field analysis if they determine that the time spent in the field does not adequately record all resources, or if the results of the surveys and sampling were insufficient due to season, time of day, or weather conditions.
- Analysis of flora should be limited to naturally-occurring native vegetation and exclude intentionally-planted ornamental landscaping (applicant may need to provide proof of planting for intentionally-planted native plants). However, field observations should note if any non-native landscaping provides essential habitat for any sensitive/special status species (e.g., eucalyptus groves are essential overwintering sites for monarch butterflies).
 - Reconnaissance surveys and field sampling should comply with the CDFW [Survey of California Vegetation \(SCV\) Classification and Mapping Standards](#) and the deliverables listed in CDFW's [Vegetation Classification and Mapping Project Deliverables](#) document
 - If applicable to the project site location, applying the hierarchical vegetation classification, vegetation key and crosswalks in the [Vegetation Classification of the Santa Monica Mountains National Recreation Area and Environs in Ventura and Los Angeles Counties, California](#) report
 - Publicly sharing all vegetation data on CDFW's BIOS

Specific surveys should include information on the presence or absence of endangered, rare, or threatened species (including species of special concern, other listed sensitive species, and migratory birds) likely to be present. Surveys must be performed by biologists with demonstrable knowledge in-field detection of the subject species. If not present, include a statement explaining the theoretical physical/biological basis for the lack of expected species. All point locations and inferred territories of these species must be included on a map.

When applicable, the biologist should follow protocols and report requirements specified by the specified State or federal agency (see Appendix A) and submit the species-specific report as a separate document in the appendices of the main Biological Report. If specific protocols are not mandated by a State or federal agency, then the species-specific analysis may be embedded with the main Biological Report (see Appendix B). All species-specific analyses must comply with all applicable protocols as follows:

For Flora:

- Analyze protected flora and vegetation communities per the CDFW [Protocols for Surveying & Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities](#) if the species is listed by CDFW. In lieu of using reference sites for areas containing native vegetation, the biologist may instead cite those species' blooming periods in CalFlora and conduct field visits during those times if the initial field visit was outside of the blooming periods.
- Analyze protected flora per the USFWS [Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants](#) if the species is listed by USFWS.
- Analyze local populations based on the Element Occurrences (EO) data on the CDFW's CNDDDB. EOs are defined by the CNDDDB as a population or group of populations found within ¼ of a mile of each other. Also discuss potential impacts to the element's Occurrence Rank (A-D, X, U). See Appendix C for more information.
- Identify protected vegetation communities at both an alliance-level and association-level by following the Membership Rules listed for that alliance in the CNPS Manual of California Vegetation. The analysis must explicitly state whether the vegetation stand generally meets community requirements (e.g., characteristic species, vegetation layers, membership rules, etc.) of any CalVeg vegetation alliances, such as the Southern California black walnut groves (*Juglans californica* Forest & Woodland Alliance), and must include consideration of stand size and isolation from other stands. Note that some associations are considered sensitive even though the alliance in which they nest are not. Thus, an alliance-level regional map may not portray stands of association-level sensitive natural communities. Also note the following guidelines:
 - Stand species composition, especially in widespread alliances, differs regionally. The CalVeg classification system is based on growing VegCAMP survey data that does not yet account for regional variability and evolving understanding of each vegetation community. Additionally, cover estimates have some variation (~5-8%) from surveyor to surveyor. Therefore, any vegetation stands that do not cleanly meet certain community requirements, but are still found to "best fit" under a given vegetation alliance, should still be grouped under said vegetation alliance for the purposes of general classification.
 - Certain vegetation communities have co-dominance, such as Southern California black walnut trees sharing overstory dominance with coast live oak. For instance, if the total tree cover is 10%, *Juglans* may only have 5% absolute cover or only 3% absolute cover when with *Quercus agrifolia*, and the vegetation community will still be considered a *Juglans californica* Alliance.
 - Disturbances should be discussed in the context of its effects on the dominant plant(s) that characterize the alliance, focusing on how said disturbances affect adaptations of the alliance and its ability to continue its existence (supporting its own life processes of cover, feeding, and reproduction).
- If the project site contains any oaks or Southern California black walnuts, provide the following analysis:
 - Identify whether the tree(s) is/are part of a vegetation stand that generally meets the community requirements of a CalVeg vegetation alliance. Note that certain woodlands are identified by CDFW as a sensitive natural community on the

California Natural Community List. Determine whether the suspected woodland/grove currently or historically meets the membership rules for any sensitive natural communities identified in the CNPS Manual of California Vegetation, including but not limited to, California Walnut Groves, California sycamore - coast live oak riparian woodlands, Engelmann oak woodland and forest, and Valley oak woodland and forest. Note also that additional vegetation communities may be considered as sensitive natural communities at the association level, not the alliance level. Refer to dichotomous keys in CDFW's report titled [Vegetation classification of the Santa Monica Mountains National Recreation Area and environs in Ventura and Los Angeles counties](#), when applicable.

- Delineate the boundaries and areas (in acres or square feet) of any woodlands/groves by illustrating overlapping spheres of influence. Map any woodland/grove stands comprising of two or more trees (greater than a 4-inch diameter at standard height) of the same species, whose sphere of influence (10 times the tree area, or approximately 3.2 times the canopy radius) have any overlap.

Illustration 1: How to depict an individual tree and its sphere of influence.

Delineate a woodland wherein a stand has 2+ trees whose sphere of influence (10 times the tree area) have any overlap.

For example, see this illustration of a tree with a 1,000 SF canopy.

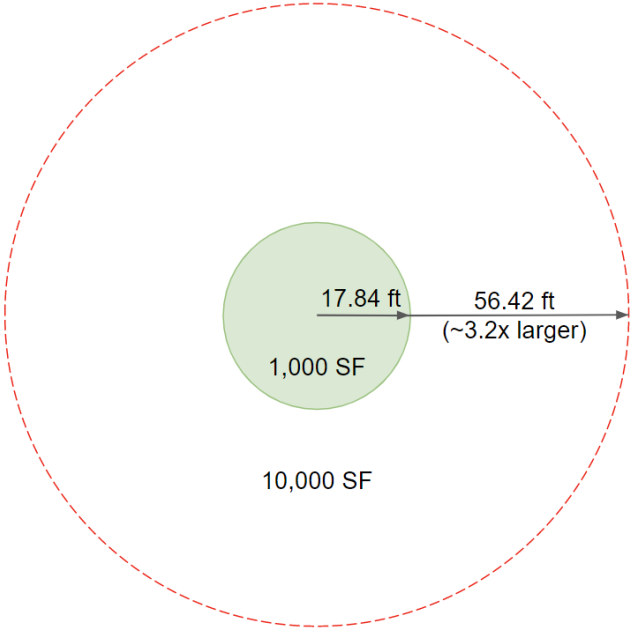
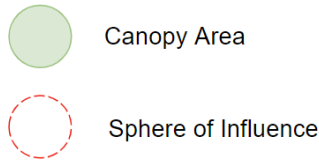
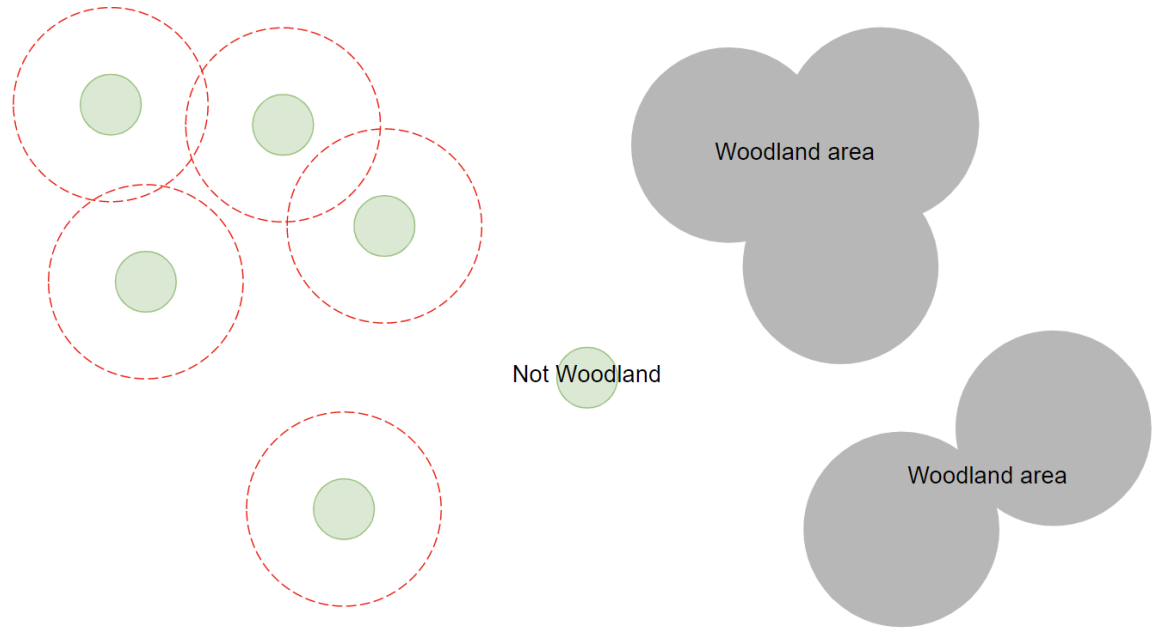


Illustration 2: How to depict qualified woodlands using their canopy areas and their respective spheres of influence.



- If the project site contains a woodland or grove with a Global or State rarity rank of 1 – 3 at a vegetation association level, determine whether the woodland/grove is self-sustaining and can naturally regenerate on the project site. If the woodland/grove is not capable of meeting its reproductive needs, discuss whether the stand supports other life processes such as sufficient cover and feeding.
- Provide the tree cover value of each tree, both absolute and relative to the vegetation community, along with supporting photographs.
- If the project site contains singular oaks or Southern California black walnuts, then identify its associated vegetation community.

For reference, Southern California black walnut groves are identified by CDFW as sensitive natural communities. If the project site contains a qualified walnut grove, then the project site likely has habitat containing resources and conditions necessary to functionally support one or more life processes of this sensitive natural community (the Southern California black walnut groves themselves). The walnut grove provides sufficient cover, feeding and reproduction - the grove contains the necessary cover from the walnut tree canopies; the canopy presumably obtains enough water and sun in its location; and the walnut grove's reproductive needs are met if the stand is self-sustaining and will be able to regenerate.

- If the project site contains a vegetation stand that may possibly qualify as a sensitive natural community, provide a completed CDFW [Rapid Assessment and Relevé Field Form](#) as an attachment to the Biological Resources Report. Also reference the vegetation association details and field keys within the regional classification report, [Vegetation Classification of the Santa Monica Mountains National Recreation Area and Environs in Ventura and Los Angeles Counties, California](#), if applicable.
- For parts of the City that have not been classified according to state standards, it may be appropriate to use the vegetation types as described in "Preliminary Descriptions of the Terrestrial Natural Communities of California" ([Holland 1986 \(Excel\)](#)). This is particularly

true for sensitive natural community types. In some unclassified areas, common types may already be described at the Alliance level. Refer to the Holland classification only when a vegetation type does not currently exist in Manual of California Vegetation.

For Fauna:

- Indicate the number of individual wildlife species should be approximated based on actual sightings and other available signs, such as scat (fecal deposits), tracks, and nests or burrows. The method by which the number of individuals and density of a species is determined must be described in the biological report.
- Note if any surveying was conducted through binoculars, or other methods, instead of walking the site due to terrain or trespassing issues.
- Note if any camera traps were used to record fauna movement or audible calls. Describe the protocols used for the remote camera trap installation and servicing, if applicable. A camera trap study is required if the project site is over 5 acres in size.
- Include a separate discussion for each federally-listed, State-listed, sensitive or special status species that occur or have a medium to high probability of occurring on the site or on land immediately adjacent to the site.
- Reconnaissance surveys and field sampling should comply with vegetation protocols when documenting habitat conditions, including publicly sharing all vegetation data on CDFW's BIOS.

For Both Flora & Fauna:

- Provide a Habitat Integrity Analysis (HIA) for each listed/sensitive/special status species, including descriptions of the habitat structure and current conditions. If the habitat is considered to be degraded, extensively elaborate on why the habitat should be considered degraded. If applicable, also extensively elaborate on why any given vegetation is degraded to the extent of no longer providing habitat for said listed/sensitive/special status species. Note the following guidelines:
 - Habitat is a species-specific construct. Habitat is the abiotic and biotic setting that currently or periodically contains (e.g., ephemeral pools) the resources and conditions necessary to support one or more life processes of a given flora or fauna species. The life processes of any fauna species include, but are not limited to, feeding (foraging), reproduction (breeding and nursery), and cover (sleeping and movement). The habitat area does not need the current presence of a protected species to qualify as habitat for said species. The HIA must determine whether the habitat currently or periodically contains the resources and conditions necessary to functionally support one or more life processes of the identified species. The analysis must be at an individual-species level and individually state whether the habitat has enough integrity for that specific flora/fauna species. A blanket statement on the lack of said habitat for all species without species-specific analysis does not provide sufficient environmental review.
 - Identify the associated CWHR Habitat Types (may use the [CalVeg-CWHR crosswalk](#) if needed) and discuss suitability levels (unsuitable, low, medium or high) for the following life processes:

For Flora / Vegetation Communities Habitat

- Cover: describe canopy cover and/or shade
- Feeding: describe water and sun needs
- Reproduction: describe soil fertility, presence of tree saplings, and/or pollinators

For Fauna Habitat

- Cover: describe potential shelter for resting/sleeping, hiding, and wildlife movement (daily connectivity needs, migratory needs)
- Feeding: describe potential sources for water, vegetation, prey animals
- Reproduction: describe nursery sites which include but are not limited to nests, natal dens, and soil deposits.

- If within the Coastal Zone, identify vegetation communities that potentially qualify as Environmentally Sensitive Habitat Areas (ESHA) as formally determined by the California Coastal Commission, using the following criteria:
 - Contains the presence of special status individual flora/fauna species that are rare or especially valuable. Note that many rare species or habitat types are globally rare but locally abundant. A species or habitat type may have suffered severe historical declines in overall abundance and currently are reduced to a small fraction of their original range, but where present may occur in relatively large numbers or cover large local areas. For individual rare species, it is not necessary to find that they are relatively pristine, and are neither isolated nor fragmented.
 - Is within the Santa Monica Mountains and contains one or more of the following CWHR Habitat Types (may use the [CalVeg-CWHR crosswalk](#) if needed):
 - Riparian Woodland: [Montane Riparian \(MRI\)](#), [Valley Foothill Riparian \(VRI\)](#)
 - Coastal Scrub (CSC)
 - Chaparral: [Mixed Chaparral \(MCP\)](#), [Montane Chaparral \(MCH\)](#), [Chamise-Redshank Chaparral \(CRC\)](#)
 - Oak Woodlands: [Coastal Oak Woodland \(COW\)](#), [Valley Oak Woodland \(VOW\)](#), [Montane Hardwood \(MHW\)](#)
 - Native [Perennial Grasslands \(PGS\)](#)
 - Monarch Butterflies Overwintering Sites: [Eucalyptus](#)

Note that areas may be valuable because of their “special nature,” such as being an unusually pristine example of a habitat type, containing an unusual mix of species, supporting species at the edge of their range, or containing species with extreme variation. For example, reproducing populations of valley oaks are not only increasingly rare, but their southernmost occurrence is in the Santa Monica Mountains.

Within the Santa Monica Mountains, as in most areas of Southern California affected by urbanization, all natural habitats are in grave danger of direct loss or significant degradation as a result of many factors related to anthropogenic changes (Is easily disturbed or degraded by human activities). Areas of undeveloped native habitat in the Santa Monica Mountains that are large and relatively unfragmented may meet the definition of ESHA by virtue of their valuable roles in that ecosystem, regardless of their relative rarity throughout the state.

- **WATER RESOURCES** (Applicable when surface water resources, including ephemeral streams, may be present):
 - The mapping of wetlands and/or waters of the U.S. can often be completed with site visits and review of aerial photographs and with topographical, vegetation, and soil maps. Under this method wetlands and/or waters of the U.S. are conservatively identified to extend to the outermost limit of riparian vegetation (canopy drip line or scrub line boundary), hydric soils, or the defined bed and bank of a drainage feature, whichever is greatest. Note the following guidelines:
 - Adjoining properties should also be surveyed where direct or indirect project effects could occur, such as those from altered hydrology, as access allows
 - A discussion of any significant limitations to each of the surveys performed, such as timing, season, or inability to access or observe portions of the property or observe adjacent properties. All reports should acknowledge the existence of time and seasonal variations recognizing that not all species on the site may be detected
 - Include all ephemeral streams and waterways, if any occur on the project site
 - Include a map of the property depicting the areas surveyed, if applicable(i.e. a map should be included when transects, quadrat sampling, or sample points are used)
 - A full wetland delineation survey following the US Army Corps of Engineers standards, including soil testing, may be required if the boundaries of the wetlands are not easily discernible through a basic wetland survey. When a formal wetland delineation is completed, a separate wetland delineation map is required in addition to showing the extent of wetlands on the map. Datasheets or other information that was used to complete the delineation should be provided in addition to the mapping
 - Reconnaissance surveys and field sampling should utilize one of the following standardized protocols when documenting water resources:
 - Hydrogeomorphic Model (HGM) - the traditional method for assessing wetlands, vernal pools and subtidal habitats, and intertidal areas with little vegetated cover
 - California Rapid Assessment Method (CRAM) - a rapid assessment method for monitoring the conditions of wetlands throughout California. May not be appropriate for assessing biophysical functions of water resources, vernal pools, ephemeral streams, and seasonal depressional wetlands
 - If vernal pool habitat is suspected, include a survey to determine the presence/absence of vernal pools, utilizing the USFWS's Vernal Pool Guidelines
- **APPENDICES.** Include a Comprehensive Observed Species List, separating flora from fauna, and must include all of the following components:
 - Scientific Name and Common Name
 - Sensitivity Ranking, as deemed by State or Federal agencies (e.g., CDFW, USFWS, California Coastal Commission, etc.) and Conservation Status, as listed in the following:
 - California Rare Plant Ranking (CRPR) per the California Native Plant Society (CNPS) - cite the CNPS Inventory of Rare and Endangered Plants
 - Global (G) and State (S) Ranking per NatureServe - cite the CNPS Inventory of Rare and Endangered Plants or the NatureServe Explorer

- Preferred habitat requirements (e.g., vegetation, soil, elevation range, etc.)
- Verified On-Site (Yes/No) - direct observation / indirect evidence
- Potential to Occur On-Site (Observed or Low/Medium/High/Unlikely)
- The factual basis for determination of occurrence potential - for example, “the site contains no habitat suitable for coastal dunes milk-vetch”

Any deviations from the above standards must be explicitly noted and justified in the Biological Resources Report.

Appendix A - State & Federal Protocols & Report Requirements

Surveys of threatened, endangered, rare, or other sensitive species must be performed by biologists with demonstrable knowledge in-field detection of the subject species. If the project site has the potential for any of the following species to occur on-site, then the biologist should comply with the following protocols and report requirements specified by the listed State or federal agency for said species. The species-specific report should be summarized in the Fauna Section of the Full Biological Report and attached as an appendix.

Invertebrates

Vernal Pool Branchiopods

- Interim Survey Guidelines to Permittees for Recovery Permits under Section 10(a)(1)(A) of the Endangered Species Act for the Vernal Pool Branchiopods (USFWS, 4/1996)

Amphibians

Arroyo Toad

- Survey Protocol for the Arroyo Toad (USFWS)

California Red-legged Frog

- Revised Guidance on Site Assessment and Field Surveys for the California Red-legged Frog (USFWS, August 2005)

Reptiles

Western Pond Turtle

- Draft USGS Western Pond Turtle Visual Survey Protocol for the Southcoast Ecoregion (USGS, 2006)

Birds

Burrowing Owl

- Staff Report on Burrowing Owl Mitigation (Dept. of Fish and Game, March 7, 2012)
- Staff Report on Burrowing Owl Mitigation (Dept. of Fish and Game, 10/1995)
- Burrowing Owl Survey Protocol and Mitigation Guidelines (The California Burrowing Owl)

Consortium, 1993)

Coastal California Gnatcatcher

- Coastal California Gnatcatcher Presence/Absence Survey Guidelines (USFWS, 2/1997)

Least Bell's Vireo

- Least Bell's Vireo Survey Guidelines (USFWS, 1/2001)

Appendix B - Local Report Requirements for Select Species

Specific Survey Instructions for Mountain Lions (*Puma concolor*)

Describe the methodology used to assess the project site for suitable mountain lion habitat and connectivity potential. If no potential habitat is found, summarize the negative survey results. Surveys should identify:

- Habitat suitable for mountain lion dens, including caves, large natural cavities within rocky areas, or vegetation thickets deemed appropriate for use by mountain lions based on size and other characteristics (e.g., proximity to human development, surrounding habitat). Habitat use should be based on two behavior categories: reproductive behavior (communication and denning), or non-reproductive behavior (moving and feeding), and any natural communities on the project site that are suitable for either behavior (See more information in the Wilmers et al. 2013 academic paper titled *Scale dependent behavioral responses to human development by a large predator, the puma*, and more general information in the Burdett et al. 2010 academic paper titled *Interfacing models of wildlife habitat and human development to predict the future distribution of puma habitat*)
- Evidence of mountain lion presence (e.g., direct observation, tracks, scat, carcasses or bones of prey species) in the vicinity of identified suitable habitat
- Habitat suitable for mule deer, including the presence of grasses and forbs, woodland vegetation (especially acorn mast), chaparral vegetation (especially chamise shrubs), and riparian vegetation. Reference the [Habitat Guidelines for Mule Deer by the Western Association of Fish and Wildlife Agencies](#) for more information
- Evidence of mule deer presence (e.g., direct observation, tracks, scat, carcasses)
- The project's potential effects on mountain lions by including a discussion of the following:
 - The introduction of new/additional barriers to dispersal
 - The creation of wildlife corridor constraints and pinch points which may lead to severed migration
 - The contribution to habitat loss, fragmentation, and encroachment, including the following:
 - Number or acreage of landscape linkages/landscape blocks within the Project area and adjacent areas, referencing CDFW's Natural Landscape Blocks dataset (DS 621) and Essential Connectivity Areas dataset (DS 650)
 - Acreage of mountain lion habitat suitability (a proxy for mountain lion permeability and use) within the Project area and adjacent areas, referencing CDFW's Mountain Lion Predicted Habitat CWHR dataset (DS 2616) and the Mountain Lion Habitat Suitability dataset for probability of use (DS 2916)

- Analysis of current landscape intactness (current level of development) around the Project area, and how the Project may impact habitat connectivity or impede mountain lion movement across the landscape to remaining adjacent habitats
- The cumulative impacts from multiple spatial scales, including the following:
 - City of Los Angeles / Eastern Santa Monica Mountains
 - Entirety of the Santa Monica Mountains
 - Range of the Southern California/Central Coast Evolutionarily Significant Unit (ESU) of Mountain Lion
- The increase of human presence, noise, and lighting, as well as introduction of pets and/or livestock/animal keeping
- The use of herbicides, pesticides, and rodenticides

Specific Survey Instructions for Monarch Butterflies (*Danaus plexippus*)

If the project site is located less than one mile from the coastline, describe the methodology used to assess the project site for suitable monarch butterfly habitat, both for overwintering sites. If no potential habitat is found, summarize the negative survey results. Provide a Habitat Site Assessment for any potential overwintering sites (e.g., eucalyptus groves), as detailed in pages 13-18 of the publication called *Protecting California's Butterfly Groves: Management Guidelines for Monarch Butterfly Overwintering Habitat* by the Xerces Society, along with native trees and plants listed in Appendix A.

Specific Survey Instructions for Bats (*Chiroptera*)

Describe the methodology used to assess the project site for suitable bat habitat, both for day roosts and night roosts. If no potential habitat is found, summarize the negative survey results. Surveys should identify all of the following:

- Habitat suitable for bats, including trees (e.g., palm trees, large old trees with cavities, dead trees), cliff faces, rock outcroppings, structure overhangs (e.g., roof overhangs on houses and sheds), and bridges
- Evidence of bat presence (e.g., direct observation (alive or dead), guano deposits, urine stains, vocalizations) in the vicinity of identified suitable habitat
- The proximity of suitable bat habitat to prime foraging areas, such as water sources (e.g., artificial lakes, reservoirs, pools, rivers, drainages, or storm channels)

Specific Survey Instructions for Nesting Birds

Describe the methodology used to assess the project site for suitable nesting birds, with specific reference to long-term nesting species such as raptors (hawks, owls, falcons) and colonial waterbirds (e.g., herons and egrets). Ensure that the entire vicinity of the subject property (e.g., out to 500') is evaluated, both for these long-term nests, as well as for their foraging habitat. If no nesting birds are found, summarize the negative survey results. Surveys should identify all of the following:

- Habitat suitable for nesting birds, including trees, shrubs, and structure overhangs (e.g., roof overhangs on houses and sheds)
- Evidence of nesting birds (e.g., photos of nests with birds inside)

Appendix C - Occurrence Data from the CNDDDB

(Sources: *Glossary of the CNPS Rare Plant Inventory*; *The CNDDDB Review Process for Creating the Special Animals List by CDFW dated May 2022*)

The CNDDDB uses the term “element” to define what is tracked in the database; they are elements of natural diversity. Elements of natural diversity are often species, but may also include subspecies or populations [e.g., evolutionarily significant units (ESU) or distinct population segments (DPS)].

Once a plant or animal is added to a CDFW list (e.g., the Special Animal List) as an element, CNDDDB actively accepts and manages data for that element. CNDDDB staff then evaluate the data and create occurrence assessments known as “element occurrences.” EOs summarize the text and spatial information known to CNDDDB about an element in an area at a specific location and time. The process of evaluating data and including it in the CNDDDB as EOs is referred to as “mapping” the data. The CNDDDB distributes mapped EOs through the web application called BIOS or by download. The text portion of the occurrences can be accessed through the web-based query application called RareFind.

Where available, a summary of EO data is included from the CDFW’s CNDDDB. These data are available for all CRPR 1 and 2 plants and only some CRPR 3 and 4 plants. Most CRPR 3 and 4 plants that have EO data in this section were previously assigned to CRPR 1 or 2; their EO data is a reflection of their prior rank and have generally not been updated since the date of their change to CRPR 3 or 4. (Note, if EO data are not available for a CRPR 1 or 2 plant in this Inventory, this usually indicates it is a recent addition and that the data are not yet included in the CNDDDB.) EOs are defined by the CNDDDB as a population or group of populations found within ¼ of a mile of each other.

For Flora

- **Total Occurrences.** The current total number of EOs in California for a particular plant.
- **Element Occurrence Ranks.** An element's Occurrence Rank is a ranking of the quality of the habitat and the condition of the population at that location. The possible values for Occurrence Rank along with their descriptions are as follows:

EO Rank	Description
A: Excellent viability	Occurrence exhibits optimal or at least exceptionally favorable characteristics with respect to population size and/or quality and quantity of occupied habitat; and, if current conditions prevail, the occurrence is very likely to persist for the foreseeable future (i.e., at least 20–30 years) in its current condition or better. These occurrences have characteristics (e.g., size, condition, landscape context) that make them relatively invulnerable to extirpation or sustained population declines, even if they have declined somewhat relative to historical levels. For species associated with habitat patches or ephemeral or particularly dynamic habitats,

	<p>occurrences warranting an A rank generally consist of metapopulations rather than single demes (unless exceptionally large and robust). Occurrences of this rank typically include at least 1,000 mature individuals but may be smaller (100s) or might require larger populations (10,000s), depending on the species and its demographic characteristics. However, occurrences can be ranked A even if population size is not known. For example, for occurrences lacking information on population size, an A rank may be appropriate under the following circumstances: the population is clearly very large, but it is not known how large; the area of occupied habitat is exceptionally large; or the occurrence has excellent condition and landscape context and a long history of occurrence persistence. Occurrences with excellent estimated viability are ranked A even if one or more other occurrences have a much larger population size and/or much greater quantity of occupied habitat. In most cases, occurrences ranked A will occupy natural habitats. However, "natural" is an ambiguous concept, and occurrences in "unnatural" conditions (e.g., somewhat modified by human actions) may still be assigned a rank of A if they otherwise meet the criteria.</p>
B: Good viability	<p>Occurrence exhibits favorable characteristics with respect to population size and/or quality and quantity of occupied habitat; and, if current conditions prevail, the occurrence is likely to persist for the foreseeable future (i.e., at least 20–30 years) in its current condition or better. B-ranked occurrences have good, estimated viability and, if protected, contribute importantly to maintaining or improving the conservation status of threatened or declining species.</p>
C: Fair viability	<p>Occurrence characteristics (e.g., size, condition, and landscape context) are non-optimal such that occurrence persistence is uncertain under current conditions, or the occurrence does not meet A or B criteria but may persist for the foreseeable future with appropriate protection or management, or the occurrence is likely to persist but not necessarily maintain current or historical levels of population size or genetic variability. This rank may be applied to relatively low-quality occurrences with respect to size, condition, and/or landscape context if they still appear to have reasonable prospects for persistence for the foreseeable future (i.e., at least 20–30 years).</p>
D: Poor viability	<p>If current conditions prevail, occurrence has a high risk of extirpation (because of small population size or area of occupancy, deteriorated habitat, poor conditions for reproduction, ongoing inappropriate management that is unlikely to change, or other factors).</p>
X: Extirpated	<p>Adequate surveys by one or more experienced observers at times and under conditions appropriate for the species at the occurrence location, or other persuasive evidence, indicate that the species no longer exists there or that the habitat or environment of the occurrence has been destroyed to such an extent that it can no longer support the species.</p>
U: Unknown	<p>An occurrence rank cannot be assigned due to lack of sufficient information on the occurrence.</p>

- **Occurrence Status.** Displays the number of element occurrences that have been seen within the past 20 years. Element occurrences last seen more than 20 years ago are considered historical.

Historical > 20 Years

The number of occurrences not seen within the past 20 years.

Recent <= 20 Years:

The number of occurrences seen within the past 20 years.

- **Presence.** Presence refers to the condition of the occurrence when it was last observed. The three possible values of Presence are totaled across all occurrences and are described as follows:

Presumed Extant

The total number of occurrences that are presumed to be extant (still in existence). An occurrence is presumed extant until evidence to the contrary is received by the CNDDDB.

Possibly Extirpated

The total number of occurrences that are possibly extirpated (i.e., locally extinct, destroyed). Evidence of habitat destruction or population extirpation has been received by the CNDDDB for this site, but questions remain as to whether the element still exists.

Presumed Extirpated

The total number of occurrences that are presumed extirpated (i.e., locally extinct, destroyed). Only used when the element has been searched for but not seen for many years or when the habitat is destroyed at this site.

For Fauna

- **State Ranks (S ranks).** State ranks reflect the status of a species, subspecies, or variety statewide. For the CNDDDB, S ranks refer to the imperilment status only within California’s State boundaries.

Below are the main categories of state ranks:

EO Rank	Description
S5: Secure	At very low or no risk of extirpation in the state due to a very extensive range, abundant populations or occurrences, and little to no concern from declines or threats.

S4: Apparently Secure	At a fairly low risk of extirpation in the state due to an extensive range and/or many populations or occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors.
S3: Vulnerable	At moderate risk of extirpation in the state due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors.
S2: Imperiled	At high risk of extirpation in the state due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors.
S1: Critically Imperiled	At very high risk of extirpation in the state due to very restricted range, very few populations or occurrences, very steep declines, severe threats, or other factors.
SH: Possibly Extirpated	Known from only historical records but still some hope of rediscovery. There is evidence that the species may no longer be present in the state, but not enough to state this with certainty. Examples of such evidence include (1) that a species has not been documented in approximately 20-40 years despite some searching and/or some evidence of significant habitat loss or degradation; (2) that a species has been searched for unsuccessfully, but not thoroughly enough to presume that it is no longer present in the jurisdiction.
SX: Presumed Extirpated	Species is believed to be extirpated from the state. Not located despite intensive searches of historical sites and other appropriate habitat, and virtually no likelihood that it will be rediscovered.
SNR: Unranked	State rank not yet assessed.