2045 General Plan Existing Conditions Report

Chapter 5: Biological Resources

Biological Resources Findings

Oak Woodlands

1. Atascadero contains a diversity of oak woodlands, including Blue Oak Woodlands, Coast Live Oak Woodlands, Valley Oak Woodlands, and Blue Oak-Foothill Pine. Oak woodlands provide important wildlife habitat and are an integral part of the aesthetic appeal for living in the city. Approximately 10,822 acres of oak woodlands have been mapped within the urban reserve area by the California Department of Forestry.

Waterways

1. Atascadero contains approximately 27 miles of creeks and rivers, including Atascadero Creek, Boulder Creek, Graves Creek, Paloma Creek, and the Salinas River. These waterways provide important wildlife corridors connecting the Salinas River to the Santa Lucia Mountains and are designated critical habitat areas for South-Central California Coast Steelhead Trout. They also provide recreational opportunities for many residents.

2. The creeks have been highly impacted by problems with trash, illegal dumping, off-road vehicle use, and urban pollution that has significantly degraded the quality of the habitat. Protecting and enhancing these areas can better support the local ecosystem, help improve water flow (and reduce localized flooding risks), and increase the quality of life for residents. In addition, the Salinas River has been identified as a key natural resource that should be protected and bolstered as a regional attraction for tourism, recreation, and education.

3. All waterways in the study area contain identified barriers to fish passage as mapped by California's Fish Passage Assessment Database (California Department of Fish and Wildlife [CDFW] 2022c); however, Atascadero Creek contains the highest number with 10 barriers. These barriers range from only partial barriers to total barriers.

Special-Status Species

1. Based on an analysis of California Natural Diversity Database (CNDDB) occurrence records and suitable vegetation and habitats within the study area, it was determined that populations of eight special-status plant species occur in the study area. There are suitable habitat conditions for four additional special-status plant species and marginal conditions present to potentially support habitat for 13 additional special-status plant species.

2. There are CNDDB occurrence records for nine special-status animal species in the study area. These are the obscure bumble bee (*Bombus caliginosus*), crotch bumble bee (*Bombus crotchii*), Atascadero June beetle (*Polyphylla nubile*), coast range newt (*Taricha torosa*), California red-legged frog, northern California legless lizard (*Anniella pulchra*), western pond turtle (*Emys marmorata*), purple martin (*Progne subis*), and golden eagle (*Aquila chrysaetos*).

3. There are suitable habitat conditions present, and the study area is within the range of 16 additional special-status animal species. Four additional special-status animal

species have historically occurred in the study area, but their populations have been extirpated.

Critical Habitat

1. Graves Creek, Atascadero Creek, and the Salinas River are designated as Critical Habitat for South-Central California Coast steelhead DPS. These creeks fall within the Paso Robles Hydrologic Subarea 330981, which is part of the larger Salinas Hydrologic Unit 3309 (National Oceanic and Atmospheric Administration National Marine Fisheries Service [NOAA Fisheries] 2005).
2. Anthropogenic threats to steelhead in the Salinas River watershed include: 1) barriers to upstream and downstream migration (roads, dams, groundwater extraction, sand and gravel mining); 2) agricultural conversion of floodplain habitats; 3) recreational facilities and activities; and 4) water management activities, including dam operations, diversions, and groundwater extractions (NOAA Fisheries 2013).
3. The study area contains a small portion, approximately 3,000 acres, of critical habitat for California red-legged frogs, Critical Habitat Unit SLO-3. Critical habitat areas include the upper watershed areas of Morro and Atascadero Creeks, a small portion of the Santa Margarita Creek watershed that falls in the study area, and a small corner of the Paloma Creek watershed but does not include Paloma Creek itself.
4. The key threats to the physical and biological features essential to the conservation of California red-legged frog in Critical Habitat Unit SLO-3 include predation by nonnative species, water diversion, overgrazing, and urbanization (U.S. Fish and Wildlife Service [USFWS] 2010).

Minerals

1. The California Geological Survey maps Mineral Resource Zones (MRZ) to identify the potential for the production of geologic resources such as metals, minerals, and construction aggregate. There are several MRZ-1 zones (areas of no mineral resource significance) located along the southwestern city limit and within the central and eastern portions of the city. There is an MRZ-2 zone (areas that contain identified mineral resources; Portland cement concrete-grade) surrounding the Salinas River, along the eastern city limit.
2. There are no active mines located in the city.

Groundwater Basin

1. The city is in the Atascadero Area Groundwater Subbasin. The projected future groundwater budget period (2020–2042) shows an average annual increase in groundwater in storage of 800 acre-feet per year (AFY).

Wildfire

1. The city is at an increased risk of wildfire occurrence, with the majority of land within the city of Atascadero being considered a Very High Fire Hazard Severity Zone (FHSZ) in a local responsibility area (LRA).

Major Pollutants

1. Atascadero Creek is listed on the Central Coast Regional Water Quality Control Board (RWQCB) Section 303(d) List of Impaired Waters for dissolved oxygen and pathogens (e.g., fecal coliform, *E. coli*) and the Salinas River is listed on the Section 303(d) List of Impaired Waters for turbidity (RWQCB 2018).
2. Based on a query of the California Department of Toxic Substances Control (DTSC) EnviroStor and State Water Resources Control Board (SWRCB) GeoTracker databases, there are no open hazardous materials sites located within the city. There are 34 closed Leaking Underground Storage Tank (LUST) cleanup sites, two closed school investigation sites, and one closed school cleanup site within the city (DTSC 2022; SWRCB 2022).

5.1 Introduction

This chapter examines the existing biological resources present within Atascadero. The purpose of this analysis is to provide planning and environmental context for the General Plan Update project. The information presented in this chapter will be used by the City to develop Open Space Element policies and objectives and define programs that implement those policies.

The intent of this chapter is to identify and evaluate existing biological resources within the study area, identify which ones are protected by Federal or State laws, and to provide guidance to protect and avoid those resources that legally require protection while developing compatible land use policies, avoiding incompatibility problems in the future. The chapter addresses existing physical and biological conditions and focuses on sensitive resources. This information will serve as the basis for developing guidelines for identifying compatible land uses, identifying the proper distribution of land uses, and establishing proper development standards. A discussion of Federal, State, and local regulations protecting biological resources is also included.

This chapter is organized into the following sections:

Section 5.1: Introduction
Section 5.2: Regulatory Setting
Section 5.3: Methods
Section 5.4: Existing Physical and Biological Conditions
Section 5.5: Special-Status Species
Section 5.6: Critical Habitat
Section 5.7: Oak Woodland Resources
Section 5.8: Minerals
Section 5.9: Groundwater Basin(s)
Section 5.10: Wildfires
Section 5.11: Major Pollutants
Section 5.12: Sources
Section 5.13: Acronyms and Key Terms

5.2 Regulatory Setting

Federal

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) of 1973 is administered by the U.S. Fish and Wildlife Service (USFWS) and National Oceanic and Atmospheric Administration National Marine Fisheries Service (NOAA Fisheries). Overall, NOAA Fisheries is responsible for the protection of FESA-listed marine species and anadromous fish species, while other listed species fall under USFWS jurisdiction.

Federal Clean Water Act

The Federal Clean Water Act (CWA) of 1972 provides guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters. CWA requirements pertaining to the proposed project are described below.

Section 401 requires that an applicant for a Federal license or permit that allows activities resulting in a discharge to waters of the United States (WOTUS), must obtain State certification that the discharge complies with other provisions of CWA. The nine Regional Water Quality Control Boards (RWQCBs) administer the certification program in California.

Section 404 establishes U.S. Army Corps of Engineers (USACE) jurisdiction over fill materials in essentially all waterbodies, including wetlands. All Federal agencies are to avoid impacts on wetlands whenever there is a practicable alternative. Section 404 established a permit program administered by USACE regulating the discharge of dredged or fill material into WOTUS (including wetlands).

Section 404 guidelines allow the discharge of dredged or fill material into the aquatic system only if there is no practicable alternative that would have less adverse impacts.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 with Canada, Mexico, and Japan makes it unlawful to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter, any migratory bird, or the parts, nests, or eggs of such a bird except under the terms of a valid Federal permit. The Federal MBTA applies to the removal of nests (such as swallow nests on bridges) occupied by migratory birds during the breeding season.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act of 1940 (as amended) provides for the protection of bald and golden eagles by prohibiting the take, possession, sale, purchase, barter, offer to sell, purchase or barter, transport, export or import, of any bald or golden eagle, alive or dead, including any part, nest, or egg, unless allowed by permit (16 United States Code [USC] 668(a); 50 Code of Federal Regulations [CFR] 22). The USFWS may authorize take of bald and golden eagles for activities where the take is associated with, but not the purpose of, the activity and cannot practicably be avoided (50 CFR 22.26).

State

California Environmental Quality Act

Guidance for determining California Environmental Quality Act (CEQA) significance thresholds is based on Appendix G of the State CEQA Guidelines. Using these guidelines, activities requiring CEQA review within the study area would have a significant impact on biological resources if they would:

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 the USFWS or California Department of Fish and Wildlife (CDFW);

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 the USFWS or CDFW;

Have a substantial adverse effect on Federally protected wetlands as defined by CWA Section 404;

Interfere substantially with the movement of any resident or migratory species of wildlife, wildlife corridors, or wildlife nursery sites;

Conflict with any local policies or ordinances protecting biological resources; or

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

California Endangered Species Act

The California Endangered Species Act (CESA) of 1970 generally parallels the main provisions of the FESA but also extends the take prohibitions to species proposed for listing. Sections 2080 and 2081 of the California Fish and Game Code (CFGC) prohibit the take (defined as hunting, pursuing, catching, capturing, or killing) of endangered, threatened, or candidate species unless otherwise authorized by permit. The CDFW regulates activities that may result in the "take" of such species. The CESA has a much less inclusive definition of "take" (limited to direct take such as hunting, shooting, capturing, etc.) that does not include the broad "harm" and "harassment" definitions in Federal law.

Take of State-listed species would require a Section 2081 Incidental Take Permit from the CDFW. This process requires the submittal of a sensitive species study and permit application package, and is similar to the FESA Section 10 process, except that the CDFW is the regulatory and decision-making agency. As no State-listed species are anticipated to be subjected to take for this proposed project, a Section 2081 Incidental Take Permit from the CDFW will not be required.

Native Plant Protection Act

The legal protection afforded to listed plants under the Native Plant Protection Act (NPPA) of 1977 (CFGC Sections 1 900–1913) includes provisions that prohibit the taking and possession of plants from the wild and a salvage requirement for landowners and project proponents that may encounter rare plants during implementing a project that may impact those species. If a

landowner has been informed of a listed plant species on their property, the CDFW must be notified at least 10 days in advance of any land use change that might affect the species or its habitat, thereby affording CDFW an opportunity to conduct a salvage operation. Candidate species are also protected from taking by the NPPA.

The CDFW has demonstrated a general policy of regarding many of the plants on the California Native Plant Society (CNPS) California Rare Plant Ranks (CRPRs) 1 and 2 as meeting the definitions of Chapter 10, Section 1901 of the NPPA. As such, those plants also qualify for protection under CEQA.

California Fish and Game Code Sections 3503, 3511, 4700, 5050, and 5515

Section 3503 of the CFGC includes provisions to protect the nests and eggs of birds. Sections 3511, 4700, 5050, and 5515 include provisions to protect Fully Protected species, such as: (1) prohibiting take or possession "at any time" of the species listed in the statute, with few exceptions; (2) stating that "no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to 'take' the species;" and (3) stating that no previously issued permits or licenses for take of the species "shall have any force or effect" for authorizing take or possession. The CDFW is unable to authorize incidental take of "fully protected" species when activities are proposed in areas inhabited by those species; therefore, project-related activities must avoid take of Fully Protected species.

California Fish and Game Code Section 1602

Section 1602 of the CFGC requires any person, State, or local government agency or public utility proposing a project that may affect a river, stream, or lake to notify the CDFW before beginning the project. If activities will result in the diversion or obstruction of the natural flow of a stream; substantially alter its bed, channel, or bank; impact riparian vegetation; or adversely affect existing fish and wildlife resources, a Streambed Alteration Agreement (SAA) is required. An SAA lists the CDFW conditions of approval relative to the proposed project and serves as an agreement between an applicant and the CDFW for a term of not more than 5 years (for standard agreements) for the performance of activities subject to this section. Implementation of the proposed project may require a Section 1602 SAA for any impacts within the banks of drainages and extending to the outer edge of riparian vegetation (whichever is greater) if these areas are determined to be jurisdictional by CDFW.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) serves as the primary water quality law in California and addresses two primary functions: water quality control planning and waste discharge regulation. The various RWQCBs are charged with protecting all waters of California, defined as "any surface water or groundwater, including saline waters, within the boundaries of the State." This encompasses all waters of the State (WOTS), including those not under Federal jurisdiction. The Porter-Cologne Act defines WOTS very broadly, with no physical descriptors, and no interstate commerce limitation. In regulating discharges of dredged or fill material, the RWQCB jurisdiction is broader than Federal jurisdiction. The discharge of dredged or fill material may constitute a discharge of waste that could affect the quality of WOTS.

In 2019, the State Water Resources Control Board (SWRCB) adopted a *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State*, for inclusion in the forthcoming *Water Quality Control Plan for Inland Surface Waters and*

Enclosed Bays and Estuaries and Ocean Waters of California (SWRCB 2019). Applicants must file an application with the California Water Boards (defined as the SWRCB and nine RWQCBs, collectively) for any activity that could result in the discharge of dredged or fill material to WOTS in accordance with Title 23 California Code of Regulations (CCR) Section 3855. The SWRCB procedures became effective on May 28, 2020.

For the purposes of this chapter, RWQCB jurisdiction (i.e., WOTS) has been interpreted conservatively as including natural streambeds, areas extending from the streambed/thalweg to the outer edge of adjacent riparian vegetation, isolated wetlands or waters that may not be under USACE jurisdiction, artificial ditches (non-agricultural) that could be relocated WOTS and have become relatively permanent features of the natural landscape, and excavated ponds or other artificial features that collect and/or convey surface water. Based on previous experience with the Central Coast RWQCB, their interpretation of State jurisdiction includes streambanks and riparian areas, despite the lack of a statewide definition and methodology for limits of WOTS.

If there is no CWA Section 404/401 nexus (such as in instances where WOTS that are not considered WOTUS could be impacted), compliance with the Porter-Cologne Act for impacts to WOTS could be regulated by the RWQCB through the Waste Discharge Requirement (WDR) program, which could require obtaining a WDR permit instead of CWA Section 404/401 permits. If the project does not qualify for an existing General Order WDR, in many situations, the new dredge/fill procedures would be followed to obtain an Individual WDR, which can be an extensive process.

Local

Native Tree Protection Ordinance (Title 9, Chapter 11)

Preservation of natural flora and fauna is a basic community goal of the *City of Atascadero General Plan* (City of Atascadero 2016) and native trees are valued community assets. Recognizing the trees of Atascadero as a valuable natural resource, a Native Tree Ordinance was adopted and was later revised to incorporate more stringent mitigation and follow-up requirements. The Native Tree Ordinance applies to all native trees; 2 inches diameter at breast height (DBH) or greater deciduous native oaks, California sycamore (*Platanus 9acemose*), and madrones (*Arbutus menziesii*); and 4 inches dbh or greater for all other protected native trees. Based on the ordinance, intentional harm, damage, death, or decline of a native tree or removal of a native tree requires a City-issued tree removal permit, unless exempt by the ordinance. Mitigation includes planting replacement trees, payment of fees into a tree fund, and/or establishment of an open space easement. A higher mitigation fee is required for the removal of deciduous native trees than for evergreen trees and a higher fee is required for commercial and multi-family properties versus single-family homes.

Existing General Plan Policies

General Plan Policy 6.1 states: "Ensure that development does not degrade scenic and sensitive areas, including historic sites, creeks, riparian corridors, wetlands, woodlands, hillsides and other valuable habitats." The programs associated with this policy include:

1. Encourage use of planned developments to cluster projects around open space easements, parks, and open space dedications and minimize impacts to natural resources.

2. Seek funding to purchase or require dedication of areas of unique habitats or scenic value, especially in areas lacking adequate park facilities and open space.
3. Require native trees and plant species to be incorporated into landscaping plans.
4. Scenic and sensitive lands, including creeks, riparian corridors, wetlands, and other areas of significant habitat value, shall be protected from destruction, overuse, and misuse by the use of zoning, tax incentives, easements, or fee acquisition.
5. Public and private development in close proximity to scenic and sensitive lands, including creek reservations, wooded areas, flood plains, prominent viewsheds, and historic sites, shall be designed to minimize impacts.
6. Scenic and open space easements, parklands, and open space dedications shall be required as mitigation for subdivisions and development projects that impact, floodplains, creek reservations, wooded areas, scenic backdrops, sensitive areas, historic sites, cultural sites, and similar areas.
7. The City shall carefully evaluate both public and private projects to require the preservation of trees, watersheds, natural slopes, and other natural features.
8. Subdivisions shall be reviewed in accordance with the Appearance Review Manual and the principle of maintaining the rural and natural character of the community.
9. Attention shall be paid to the aesthetic result of land division. Building sites shall minimize disruption of natural slopes, native vegetation, and watersheds by the careful selection of building sites, leach fields, and driveways. Building designs inappropriate for hillside locations shall not be approved.

General Plan Policy 7.1 states: "Ensure that the native trees of Atascadero are protected from new development in order to retain the natural character of the community." The programs associated with this policy include:

1. Enforce all provisions of the Atascadero Native Tree Ordinance as a high priority.
2. Maintain a current geographic information system (GIS)-based inventory map of all native woodlands, plant communities, sensitive habitats, connective habitat, and wildlife corridors. Require lot line adjustments, subdivision maps, and development permits to minimize impacts on mapped resources that are identified as sensitive and provide mitigation as requirement by the Native Tree Ordinance.
3. Update and maintain the Appearance Review Manual to include standards requiring building siting, mass, and scale to be compatible with surrounding natural features.
4. Require lot line adjustments and tentative subdivision maps on sites with 25 percent or greater native tree canopy cover to establish locations of building sites, driveways, and leach fields that will minimize native tree impacts.

General Plan Policy 7.2 states: "Protect and replenish native tree populations, including saplings." The programs associated with this policy include:

1. Continue to implement and enforce the Native Tree Ordinance to protect and replenish native tree species within the city. Construction permits for both residential and non-residential development shall be required to preserve as many native trees

as possible. Buildings shall be designed to utilize existing trees in the landscaping pattern. Any trees removed shall either (1) be replaced with like species, (2) in-lieu contributions made to the City's tree replacement fund or (3) have Planning Commission approved conservation easements created depending on the characteristics of the affected site.

2. Augment the City Geographic Information System to include a native tree GIS database to assist decision-makers with analyzing development proposals.
3. The City shall implement a comprehensive program for street tree planting and maintenance within the Urban Core and all major routes and approaches to the community.
4. Require planting of large canopy shade trees in new projects, in part to provide shading adjacent to buildings to conserve energy use.

General Plan Policy 8.1 states: "Ensure that development along Atascadero Creek, Graves Creeks, the Salinas River, blue line creeks, and natural springs, lakes, or other riparian areas does not interrupt natural flows or adversely impact riparian ecosystems and water quality." The programs associated with this policy include:

1. Work with other agencies to implement the Erosion Control Assistance Program for review of development proposals to minimize sedimentation of creeks and the Salinas River.
2. Update the Appearance Review Manual to include provisions for preserving, reclaiming and incorporating riparian features in conjunction with new development.
3. The waterways in the city shall be maintained in a natural state and concrete channelization creeks shall be prohibited.
4. The City shall strongly discourage underground piping, and unnecessary disturbance of creeks and streams, and encourage use of bridges and arched culverts. Any alterations required for public safety will be guided by this policy.
5. Allow flood protection measures (such as selective brush cleaning), low-impact trail development, streambed maintenance and bank protection along streams where appropriate with necessary permits.
6. Prohibit new structures or disturbance of riparian habitat along creek banks except for restoration purposes.
7. Maintain a current GIS-based map of the riparian areas within Atascadero.
8. Prior to permit approval, refer projects along blue-line creeks to the Corps of Engineers, Department of Fish and Game, Regional Water Quality Control, and Upper Salinas-Las Tablas Resource Conservation District.
9. Creek reservations and the Salinas River shall be preserved for open space and recreational use, with appropriate areas left in their natural state for public enjoyment and habitat purposes. Any recreational use of the River and creeks shall minimize its impact on the habitat value and open space qualities of the creeks.

10. Land disturbance shall be minimized in proximity to watercourses including necessary flood protection measures, such as selective brush clearing, and low-impact trail development.

11. Areas subject to flooding, as identified through flood hazard overlay zoning and flood maps, shall be protected from unsound development consistent with the City's flood hazard ordinance requirements.

12. Wellhead and Aquifer Recharge Area Protection Zones: The City shall adopt and maintain an ordinance that identifies existing and potential well sites and aquifer recharge areas, including sufficient buffers to protect them from contamination. The ordinance shall define restricted and prohibited land uses within the wellhead/recharge protection zones and provide for the review and approval by both the City and the Atascadero Mutual Water Company of any project or development within the specified zones. The ordinance will establish a policy to provide for the monitoring of activities within these protection zones.

13. Support the establishment and protection of floodable terraces, wetlands, and revegetation along creeks and streams.

General Plan Policy 8.2 states: "Establish and maintain setbacks and development standards for creek side development." The programs associated with this policy include:

1. Adopt and maintain a creek setback ordinance that will establish building setbacks and development standards along the banks of Atascadero Creek, Graves Creek, blue line creeks and the Salinas River to ensure the uninterrupted natural flow of the streams and protection of the riparian ecosystem with flexible standards for the downtown area. Responsibility: CDD, Planning Commission, City Council Timeframe: Adopt Ordinance in 2005.

2. Prior to adoption of a creek setback ordinance an interim 35-foot creek setback shall be in effect along Atascadero Creek and Graves Creek until March 1, 2005. All other 7.5 min USGS quadrangle blue line creeks shall have an interim 20-foot setback. The interim setbacks shall be subject to the following:

    a) On Atascadero Creek and Graves Creek setbacks shall be measured from the edge of the creek reservation.

    b) All other blue line creek setbacks shall be measured from ordinary high-water mark.

    c) The Planning Commission may approve exceptions to the interim creek setbacks in the form of a Conditional Use Permit if the finding can be made that creeks, riparian areas and site improvement will not be negatively impacted by the exception.

General Plan Policy 8.3 states: "Preserve public creek reserves for public access and ensure that recreational use does not impact habitat value and open space qualities." The programs associated with this policy include:

1. Develop park, trail, and recreational amenities where appropriate in public creek reserves.

2. Require the dedication of trail easements and access points as part of subdivision maps or development permits consistent with the Circulation Element.

5.3 Methods

Study Area

The study area consists of the city limits and sphere of influence boundary (see **Figure 2-2: Planning Area**). The study area encompasses 20,266 acres, or roughly 32 square miles.

Literature Review

SWCA Environmental Consultants compiled and reviewed available biological resources data within the study area. The desktop review included existing environmental literature and other pertinent information, including but not limited to:

Special-Status Species

CDFW California Natural Diversity Database (CNDDB) (CNDDB 2022) search that focused on the following 12 USGS 7.5-minute quadrangles: Atascadero, Templeton, Creston, Santa Margarita, Lopez Mountain, San Luis Obispo, Morro Bay South, Morro Bay North, York Mountain, Adelaida, Paso Robles, and Estrella.
CNPS Inventory of Rare and Endangered Plants of California (CNPS 2022b) query for the same 12 quadrangles searched for the CNDDB.
USFWS Information for Planning and Consultation (IPaC) website (USFWS 2022b) query for the study area.
USFWS Critical Habitat (and relevant published shapefiles) (USFWS 2022a) query.

Wetlands and Waterways

Biogeographic Information and Observation System (BIOS) (CDFW 2022a)
USFWS National Wetland Inventory (NWI) Wetlands Mapper (USFWS 2022c)
U.S. Geological Survey (USGS) National Hydrography Dataset (NHD) (USGS 2022)
California's Fish Passage Assessment Database (FishPAD)(CDFW 2022c)

Soils

U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey (NRCS 2022b)

Vegetation and Land Cover

USGS National Land Cover Database (NLCD) (Dewitz and USGS 2021)
Vegetation (fveg) - California Department of Forestry Fire Protection (CAL FIRE) Fire and Resource Assessment Program (FRAP) [ds1327] (CAL FIRE 2020)

5.4 Existing Physical and Biological Conditions

Atascadero is in the upper watershed of the Salinas River and is bordered by the Salinas River to the east and the Santa Lucia Mountain Range to the west. Elevations within the study area range from 760 to 2,305 feet. The city is located within the Interior Santa Lucia Range of the Central California Foothills and Coastal Mountains Ecoregion (Griffith et al. 2016). The Interior Santa Lucia Range stretches southeast from near Greenfield in the Salinas Valley, to near the

Sisquoc River, east of the Santa Maria Valley. The primary distinguishing characteristic of this ecoregion is its Mediterranean climate of hot dry summers and cool moist winters. Dominant vegetation types include oak woodlands, mixed chaparral shrublands, and annual grasslands.

Climate

The climate can be characterized as a typical Mediterranean climate of hot dry summers and cool moist winters. The average amount of annual precipitation is 15.3 inches (NOAA 2021). Most of the precipitation occurs between November and March, with January being on average the wettest month with 3.44 inches of precipitation (NOAA 2021). Maximum average summer (May through September) temperatures range between 86 degrees Fahrenheit (°F) to 92°F, but there are often multiple days with temperatures reaching over 100°F. Minimum average summer temperatures range between 49°F and 52°F. Maximum average winter (October–April) temperatures range between 61°F and 80°F, with minimum average winter temperatures ranging between 32°F and 41°F. The coastal microclimates in San Luis Obispo County differ greatly from the inland climates of Atascadero.

Soils

The geology of the region is mostly Cretaceous sedimentary rocks and Miocene marine sediments. There are 49 soil types within the study area, encompassing five taxonomic orders: Alfisols, Entisols, Inceptisols, Mollisols, and Vertisols (**Table 5-1; Figure 5-1**). Only one—Clear Lake clay, drained—is classified as hydric. The soil types are listed below by taxonomic order, including their total area and percentage of the study area. The Mollisols dominate (52%) the study area and are mostly centered along U.S. Route (US) 101 and El Camino Real running north to south. Their associations range from alluvial fans, flats, and plains, to terraces and mountains and hillslopes and are characterized as soft, deep, dark fertile soil formed in grasslands. Inceptisols, young soils, comprise the second largest group (25%) of soils in the study area. These are primarily located along the western edge of the study area and comprise the foothills of the Santa Lucia Mountain Range, where they are mainly associated with hills and mountains. The Entisols primarily occur in alluvial fans, floodplains, stream terraces, and valleys or on the terraces of hills and mountains. Entisols are recently formed soils that lack well-developed horizons and commonly found on river and beach sediments of sand and clay or volcanic ash. One of the main soil types in this group are the Corducci and Typic Xerofluvents, which primarily occur in the streambed of the Salinas River. The Alfisols, soils with aluminum and iron, primarily occur on terraces adjacent to the Salinas River. The smallest group (only 1.1%) are the Vertisols, which are clay-rich and contain the only hydric soil in the study area—Clear Lake clay, drained—which occurs in a small pocket along Morro Road west of State Route (SR) 1.

Table 5-1: Soil Types within the Study Area

Soil Type	Total Acres	% of Study Area	Hydric
Alfisols	1,294	6.4%	
Arbuckle fine sandy loam	184	0.9%	No
Arbuckle-Positas complex	362	1.8%	No
Arbuckle-San Ysidro complex	367	1.8%	No
Dibble clay loam	84	0.4%	No

Table 5-1: Soil Types within the Study Area

Soil Type	Total Acres	% of Study Area	Hydric
Rincon clay loam	234	1.2%	--
Ryer clay loam	63	0.3%	No
Entisols	2,494	12%	
Arnold loamy sand	486	2.0%	No
Arnold-San Andreas complex	218	1.1%	No
Corducci and Typic Xerofluvents occasionally flooded	483	2.4%	No
Gaviota-Rock outcrop complex	108	0.5%	No
Hanford and Greenfield gravelly sandy loams	68	0.3%	No
Hanford and Greenfield soils	658	3.3%	No
Metz loamy sand	10	<0.1%	No
Metz-Tujunga complex occasionally flooded	28	0.1%	No
Oceano loamy sand	435	2.2%	No
Inceptisols	5,008	25%	
Balcom-Calleguas complex	20	0.1%	No
Balcom-Nacimiento association	87	0.4%	No
Millsholm-Dibble complex	4,340	21.5%	No
Millsholm-Rock outcrop complex	562	2.8%	No
Mollisols	10,582	52%	
Botella sandy loam	254	1.3%	No
Concepcion sandy loam	20	0.1%	No
Elder loam	183	0.8%	No
Elder loam flooded	60	0.2%	No
Gazos shaly clay loam	817	4%	No
Linne-Calodo complex	1,491	7.4%	No
Linne-Diablo complex	39	0.2%	No
Linne-Zakme complex	705	3.5%	No
Lockwood shaly loam	106	0.5%	No
Lockwood-Concepcion complex	199	1%	No
Lompico loam	595	2.9%	No
Lompico-McMullin complex	369	1.8%	No
Los Osos-Rock outcrop complex	816	4.0%	No
McMullin-Rock outcrop complex	544	2.7%	No

Table 5-1: Soil Types within the Study Area

Soil Type	Total Acres	% of Study Area	Hydric
Mocho clay loam	84	0.4%	No
Nacimiento silty clay loam	34	0.2%	No
Nacimiento-Los Osos complex	242	1.2%	No
Pico fine sandy loam	19	0.1%	No
San Andreas sandy loam	10	0.1%	No
San Andreas-Arujo complex	1,480	7.3%	No
Santa Lucia-Gazos complex	147	0.6%	No
Santa Lucia-Lopez complex	1,052	5.2%	No
Shimmon-Dibble association	43	0.2%	No
Sorrento clay loam	105	0.5%	No
Still clay loam	1,013	5.0%	No
Still gravelly loam	141	0.7%	No
Vertisols	216	1.1%	
Ayar and Diablo soils	94	0.5%	No
Clear Lake clay drained	68	0.3%	Yes
Cropley clay	53	0.2%	No
Unclassified	611	3.0%	
PITS	66	0.3%	No
Rock outcrop-Gaviota complex	505	2.5%	No
Water	40	0.2%	NA

Source: NRCS (2022a, 2022b)

Watersheds

The majority (98%) of the study area falls within the Salinas River Hydrologic Unit Code (HUC)-8 No. 18060005, with less than 2% falling within the Central Coast (HUC-8 No. 18060006) (**Figure 5-2**). **Table 5-2** lists the watersheds that fall within the study area; however, the main watersheds are the Graves Creek (HUC-12 No. 180600050403) watershed (42%), Atascadero Creek (HUC-12 No. 180600050204) watershed (32%), and Paloma Creek (HUC-12 No. 180600050205) watershed (24%). Graves, Atascadero, and Paloma Creeks all flow into the Salinas River, which parallels the eastern edge of the study area. A significant number of watercourses throughout the city contribute to the overall health of the watersheds and support the City's major creeks. Each of these watercourses and watersheds play a role in water quality and can be affected by flooding, contamination, increased turbidity, litter and debris, and other land use changes.

Table 5-2: Major Watersheds within the Study Area

Watershed	Area (acres)	% of Study Area
Watersheds (USGS 8-digit HU)		
Salinas River (HUC-8 No. 18060005)	19,920	>98%
Central Coastal (HUC-8 No. 18060006)	346	<2%
Subwatersheds (USGS 12-digit HU)		
Graves Creek (HUC-12 No. 180600050403)	8,497	42%
Atascadero Creek (HUC-12 No. 180600050204)	6,466	32%
Paloma Creek (HUC-12 No. 180600050205)	4,901	24%
Santa Margarita Creek (HUC-12 No. 180600050204)	36	<1%
Paso Robles Creek (HUC-12 No. 180600050402)	20	<1%
Morro Creek (HUC-12 No. 180600060412)	346	<2%

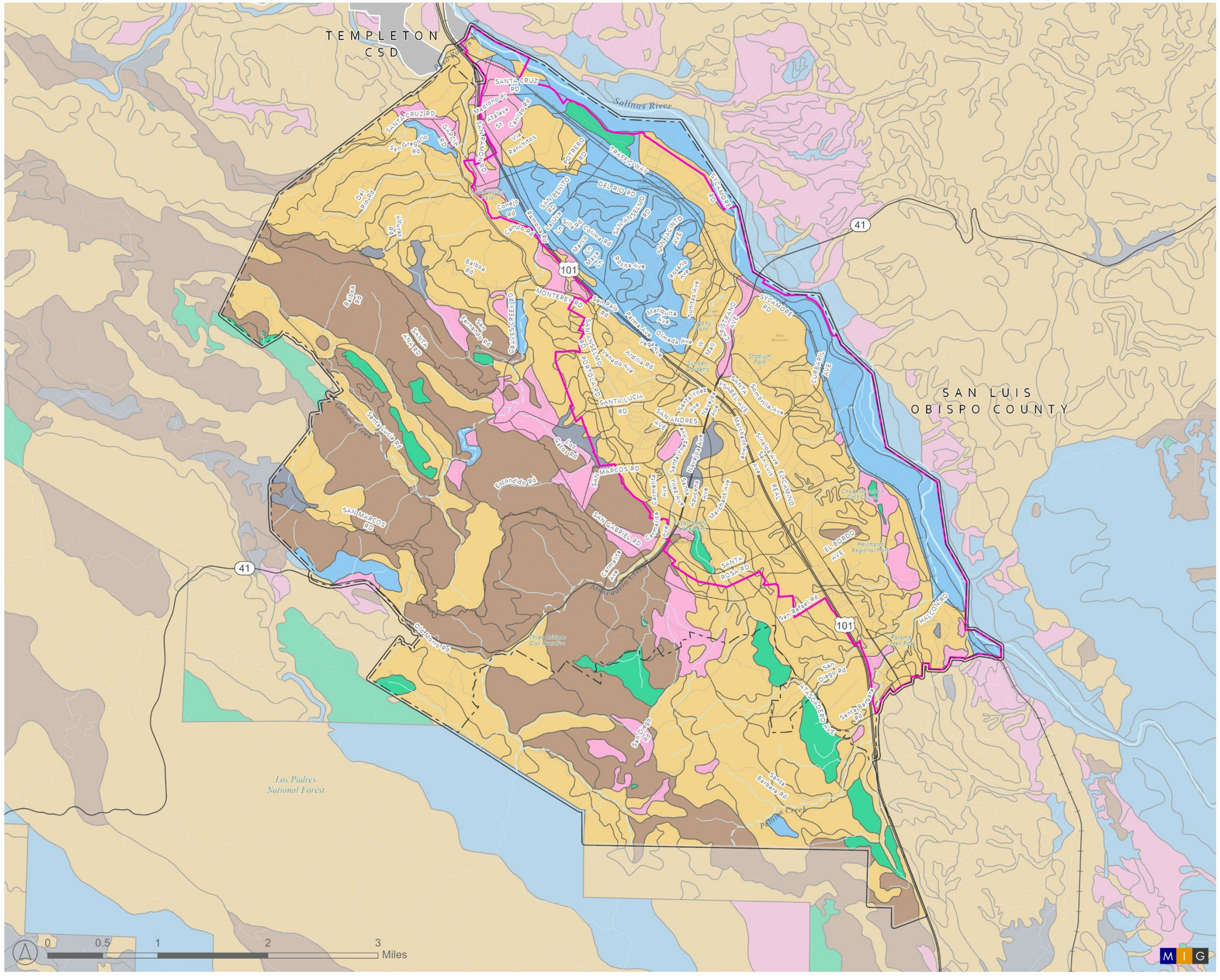

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Figure 5-1
NRCS Soils

Basemap Features
- Atascadero City Limits
- Atascadero Planning Area
- Urban Services Line
- Rivers + Waterbodies
- Major Roads + Freeways

Taxonomic Order
- Null
- Alfisols
- Entisols
- Inceptisols
- Mollisols
- Vertisols

Source(s):
Esri, CA State Open Data, County of San Luis Obispo, City of Atascadero 2023.

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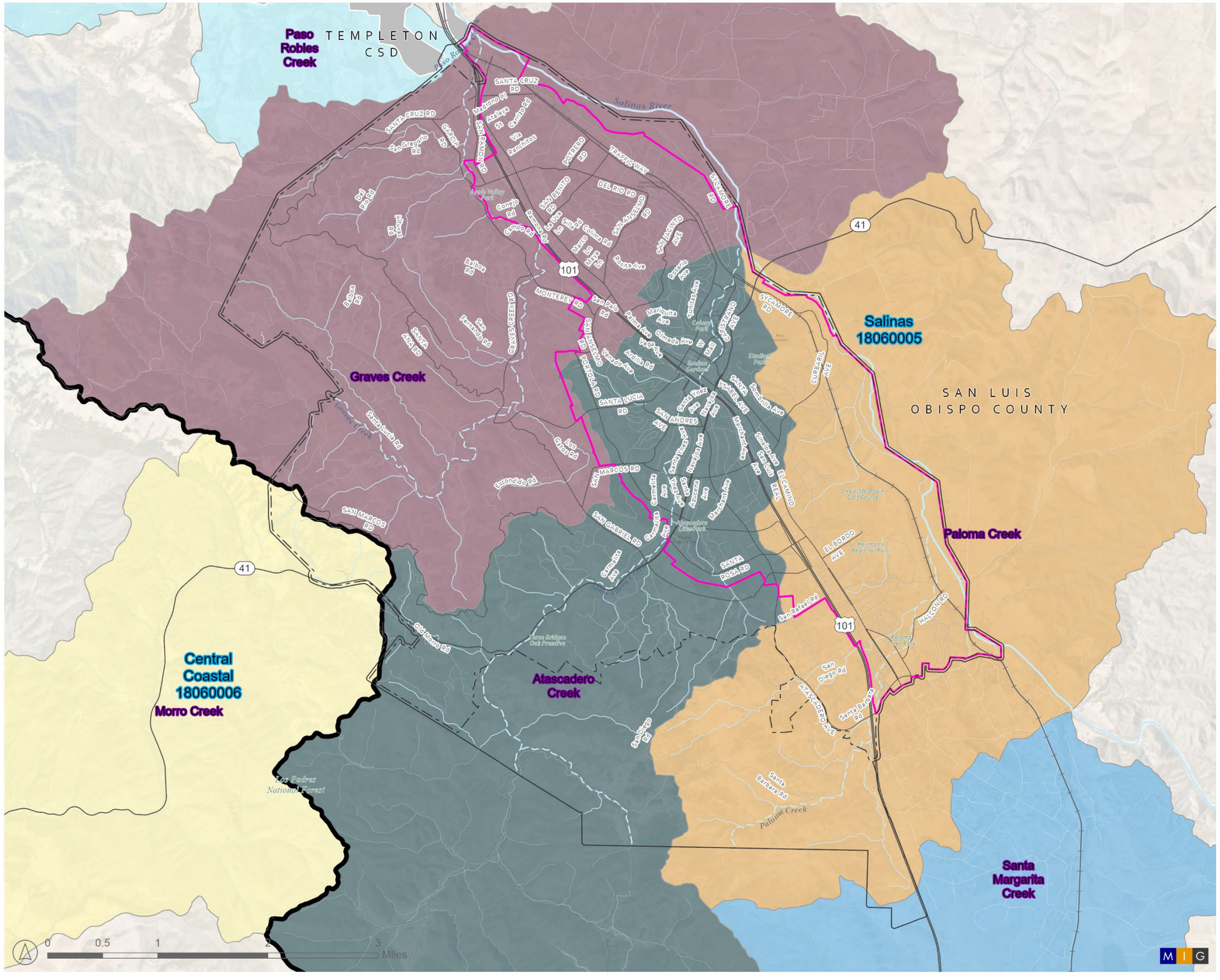
Figure 5-2
Watersheds



Basemap Features
- Atascadero City Limits
- Atascadero Planning Area
- Urban Services Line
- Rivers + Waterbodies
- Major Roads + Freeways

HUC8
- Central Coastal
- Salinas

HUC12
- Graves Creek
- Atascadero Creek
- Paloma Creek
- Paso Robles Creek
- Santa Margarita Creek
- Morro Creek

Source(s):
Esri, CA State Open Data, County of San Luis Obispo, City of Atascadero 2023.

Vegetation and Landcover Types

The vegetation and landcover categories used for the study area are from the CAL FIRE FRAP [ds1327] (**Figure 5-3**) (CAL FIRE 2020). This database is the result of a multi-agency collaboration to compile the "best available" land cover data available for California into a single comprehensive statewide data set. The classification scheme follows the California Wildlife Habitat Relationships (CWHR) system. Although these categories do not follow CNPS vegetation classification, there is a crosswalk reference created by CDFW available online (CDFW 2005).

Table 5-3: Vegetation and Landcover Types within the Study Area

Cover Type	Area (acres)	% of Study Area
Annual Grassland	4,919	24%
Barren	1,145	6%
Blue Oak Woodland	2,025	10%
Blue Oak-Foothill Pine	3,186	16%
Coastal Oak Woodland	4,786	24%
Coastal Scrub	381	2%
Cropland	26	0.13%
Deciduous Orchard	59	0.29%
Dryland Grain Crops	11	0.05%
Evergreen Orchard	8	0.04%
Irrigated Hayfield	24	0.12%
Lacustrine	31	0.15%
Mixed Chaparral	875	4%
Pasture	53	0.26%
Riverine	335	2%
Urban	1,482	7%
Valley Foothill Riparian	26	0.13%
Valley Oak Woodland	825	4%
Vineyard	68	0.34%

Vegetation Types

Blue Oak Woodland

Blue Oak Woodlands have an overstory dominated by blue oak (*Quercus douglasii*), comprising 85% to 100%. The canopy is comprised of scattered trees but can be closed. More often the canopy forms open, savanna-like stands on rolling ridges, hills, and slopes. The dominant tree species is blue oak, but common associates in the canopy include coast live live oak (*Quercus agrifolia*) and foothill pine (*Pinus sabiniana*). Shrubs are rarely present, but can include poison-oak (*Toxicodendron diversilobum*), California coffeeberry (*Frangula californica*), ceanothus (*Ceanothus* spp.), California buckeye (*Aesculus californica*), and manzanita (*Arctostaphylos* spp.) However, more commonly, the understory is an extension of the Annual Grassland vegetation, comprising mainly of annuals, such as brome grass (*Bromus* spp.), wild oats (*Avena* spp.), foxtail (*Alopecurus* spp.), barley (*Hordeum* spp.), filaree (*Erodium* spp.), and others.

Within the study area, this community occurs as patches in a mosaic with Annual Grasslands, Mixed Chaparral, Coastal Oak Woodland, Valley Oak Woodlands, Coastal Oak woodland and Blue Oak-Foothill Pine Woodlands. It typically occurs where soils are shallow, rocky, infertile, and well drained; and on dry, hot, hilly terrain where the water table is often inaccessible. The impressive spring wildflower displays within the study area are often found within Blue Oak Woodlands. It is an important wildlife habitat, used by birds, mammals, amphibians, and reptiles for nearly all stages of their life. Blue Oak Woodlands comprise roughly 10%, or 2,025 acres, of the study area.

Coastal Oak Woodland

Coastal Oak Woodlands represent a highly diverse and variable community, based on the interacting factors of slope, soil, precipitation, moisture availability, and air temperature. The overstory is dominated by deciduous and evergreen hardwoods (mostly oaks) but can have some scattered conifers. The trees can be dense and form a closed canopy, or they can be scattered and form an open woodland. The understory can contain shrubs and annual grasses and forbs. In dense coast live oak woodlands understory, plants may include more shade-tolerant shrubs such as California blackberry (*Rubus ursinus*) and poison oak, which typically occurs along riparian corridors. Significant litter accumulation is typical. The dominant tree species within the study area is coast live oak, but may include blue oak, valley oak (*Quercus lobata*), California bay (*Umbellularia californica*), big leaf maple (*Acer macrophyllum*), or toyon (*Heteromeles arbutifolia*).

Coastal Oak Woodlands is abundant throughout the study area, with most stands occurring on steeper slopes west of US 101 and the urban core. Here, it is in a mosaic with Annual Grassland, Mixed Chaparral, Blue Oak Woodland, Valley Oak Woodland, and Coastal Scrub. On the eastern side of the freeway the stands form a mosaic with Blue Oak Woodlands and urban development. It occurs on rolling ridges, slopes, and hills with well-drained soils. Coastal Oak Woodlands comprise roughly 24%, or 4,786 acres, of the study area.

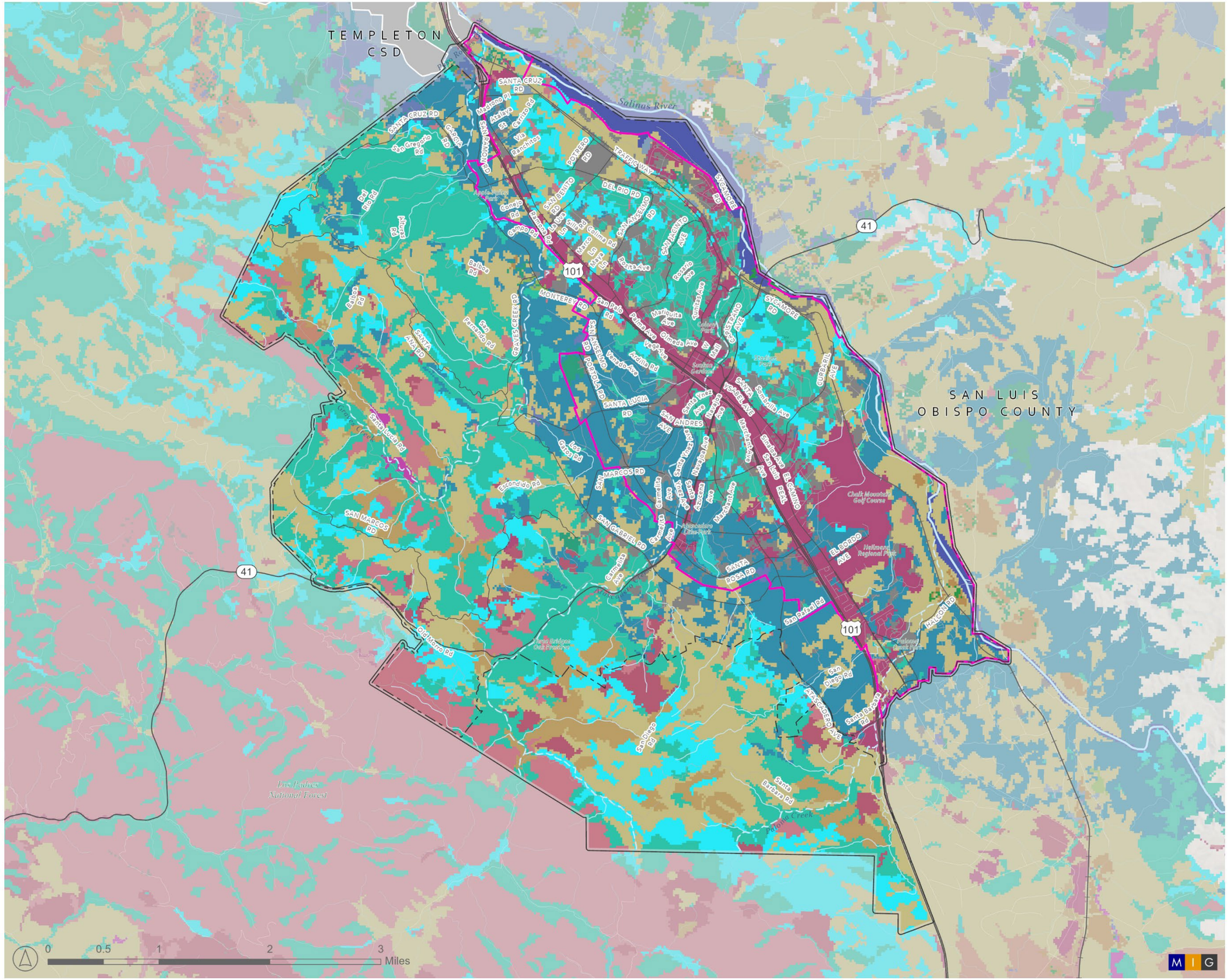


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Figure 5-3
California Vegetation

Basemap Features
- Atascadero City Limits
- Atascadero Planning Area
- Urban Services Line
- Rivers + Waterbodies
- Major Roads + Freeways

California Vegetation
- Annual Grassland
- Barren
- Blue Oak Woodland
- Blue Oak-Foothill Pine
- Coastal Oak Woodland
- Coastal Scrub
- Cropland
- Deciduous Orchard
- Dryland Grain Crops
- Evergreen Orchard
- Irrigated Hayfield
- Lacustrine
- Mixed Chaparral
- Pasture
- Riverine
- Urban
- Valley Foothill Riparian
- Valley Oak Woodland
- Vineyard

Source(s):
Esri, CA State Open Data, County of San Luis Obispo, City of Atascadero 2023.

Blue Oak-Foothill Pine

Blue Oak-Foothill Pine Woodlands stands are characterized by an overstory of blue oak and foothill pine, with blue oak typically dominating. Other tree species can be found within this community, including coast live oak, valley oak, and California buckeye. Canopy cover typically ranges from 10 to 59% and there is usually some component of standing dead wood (snags). The understory can contain shrubs and annual grasses and forbs. This community occurs in a mosaic with other communities, typically Annual Grasslands, Blue Oak Woodlands, and Valley Oak Woodlands. Within the study area, the relative proportion of blue oak to foothill pine is variable, but blue oak tends to dominate throughout. The understory has few shrubs and is dominated by annual grasses and forbs.

Blue Oak-Foothill Pine Woodlands is a valuable breeding habitat for a large variety of wildlife species. However, this community is most abundant west of US 101 between the urban core and San Gabriel Road in areas zoned rural estates. Blue Oak-Foothill Pine Woodlands comprises roughly 16% or 3,186 acres of the study area.

Valley Oak Woodland

Valley Oak Woodlands have an overstory dominated nearly exclusively by valley oak but can have foothill pine and coast live oak components on the margins of stands where communities begin to intergrade. The canopy can be open, with a savanna-like structure, or closed, with a forest-like structure. Tree density is dependent on water and soil, with denser stands occurring in valley soils along natural drainages. There can be a shrub component, typically poison oak, toyon, and coffeeberry, particularly in undisturbed/ungrazed stands. The understory is dominated by annual grasses and forbs.

Within the study area this community occurs nearly exclusively along the western edge, in a mosaic with Blue Oak Woodland, Mixed Chaparral, Coastal Oak Woodland, and Annual Grassland. It is found in valley bottoms and low areas where the soils are deep, well developed, and alluvial. Valley Oak Woodland comprises roughly 4%, or 825 acres, of the study area.

Annual Grassland

Annual Grasslands are open grasslands composed of annual herbaceous plant species, with many of the species occurring as understory components in woodland and shrub community types. The dominant species are introduced annual grasses, including wild oats, soft chess (*Bromus hordeaceus*), ripgut brome (*Bromus diandrus*), red brome (*Bromus rubens*), foxtail barley (*Hordeum murinum*), and foxtail fescue (*Vulpia myuros*). Common forbs in this community are a mixture of introduced and native species, including filaree (*Erodium* spp.), true clovers (*Trifolium* spp.), bur clover (*Medicago polymorpha*), popcorn flower (*Plagiobothrys*), fiddleneck (*Amsinckia* spp.), miniature lupine (*Lupinus bicolor*), and sky lupine (*Lupinus nanus*). Native perennial grasses are occasionally found in less disturbed areas, including purple needlegrass (*Stipa pulchra*) and one-sided bluegrass (*Poa secunda*).

This community is abundant throughout the study area and is found in a mosaic with all community types. Annual Grassland comprises approximately 4,919 acres, or roughly 24%, of the study area.

Mixed Chaparral

Mixed Chaparral is a shrub community dominated by shrubs with thick, stiff leaves adapted to hot, dry summers and limited winter precipitation. It is dense and forms a nearly impenetrable stand with greater than 80% absolute shrub cover. The dominant shrub species are several species of ceanothus (*Ceanothus* spp.) and manzanita (*Arctostaphylos* spp.), as well as scrub oak (*Quercus dumosa*), toyon, hollyleaf cherry (*Prunus ilicifolia*), and chamise (*Adenostoma fasciculatum*). Within the study area, mixed chapparal occurs in the western portion of the study area on mid-slopes below woodland and forest types. It is bounded on its lower end by coastal scrub and begins to merge with woodland and forest types on its upper edge. It is on steep slopes and ridges. Mixed Chaparral comprises 875 acres, or roughly 4%, of the study area.

Coastal Scrub

Coastal Scrub is a shrub community dominated by shrubs well adapted to hot, dry summers and limited winter precipitation. Typically, shrubs have sclerophyllous leaves or are drought deciduous, and have flexible branches and semi-woody stems. The shrub layer can be up to 7 feet and canopy cover can approach 100%. The dominant shrub species are black sage (*Salvia mellifera*), California buckwheat (*Eriogonum fasciculatum*), sticky monkeyflower (*Diplacus aurantiacus*), and coastal sagebrush (*Artemisia californica*). This community occurs in the western portion of the study area, in a mosaic with the tree communities (Coastal Oak Woodland, Blue Oak Woodland, and Valley Oak Woodland) and mixed chaparral. It is strictly in the western portion of the study area, at higher elevations on steep, dry, south-facing slopes. Coastal Scrub comprises approximately 381 acres, or roughly 2%, of the study area.

Valley Foothill Riparian

Valley Foothill Riparian is a habitat type restricted to areas adjacent to rivers and streams. Dominant species in the canopy layer include cottonwood, California sycamore, and valley oak. Subcanopy trees can include white alder (*Alnus rhombifolia*) and boxelder (*Acer negundo*). Typical understory shrub layer plants include California blackberry, poison oak, wild rose (*Rosa californica*), elderberry (*Sambucus* sp.), and willows (*Salix* spp.). The herbaceous layer consists of sedges, rushes, grasses, miner's lettuce (*Claytonia perfoliata*), poison hemlock (*Conium maculatum*), and hoary nettle (*Urtica dioica*). There are only two small pockets of this vegetation type mapped within the study area in the northwestern side along Graves Creek, but likely occurs in other areas along the riparian corridors. Valley Foothill Riparian comprises approximately 26 acres, or roughly 0.13%, of the study area.

Riverine

The areas mapped as Riverine within the study area encompass the large, braided channel of the Salinas River, which borders the eastern edge of the study area. While much of this area may also contain similar species as those found in the Valley Foothill Riparian community, the Salinas River Riparian corridor is a mature, multi-layered woodland habitat with sycamore, cottonwood (*Populus fremontii*), and willow (*Salix* spp.). The central part of the channel can be characterized by large washes and braided channels, and open water habitat characteristic of a larger river. Riverine comprises approximately 335 acres, or roughly 2%, of the study area.

Landcover Types

Agriculture

The main agricultural landcover types mapped by the CAL FIRE FRAP vegetation database are vineyard, deciduous orchard, pasture, cropland, irrigated hayfield, dryland grain crops, and evergreen orchard (see **Figure 5-4**). Much of the orchard, cropland, and pasture is located within parcels zoned rural estates. However, vineyards were equally popular on parcels zoned rural estates and larger (1.5–2.5 acre) single-family residential parcels.

Urban/Developed

The CAL FIRE FRAP vegetation database only identifies 1,482 acres of land within the study area as urban, which is considerably smaller than the approximately 2,650 acres of development (low, medium, and high intensity) mapped by the USGS NLCD. The majority of this landcover type falls within areas zoned general commercial, downtown, residential, public facilities, and public recreation.

Barren

The CAL FIRE FRAP vegetation database includes a barren category. The CWHR system defines barren habitats by the absence of vegetation. More specifically, any habitat with less than 2% total vegetation cover by herbaceous, desert, or non-wildland species and less than 10% cover by tree or shrub species. Within the study area, this category appears to correlate with non-vegetated infill areas interspersed between lower-density residential areas. It is also associated with public facilities, such as the fields around Atascadero High School. The largest areas mapped barren are situated between US 101 and the Salinas River. Within the study area there are 1,145 acres or roughly 6% of the study area.

Aquatic Resources

As mentioned above, three main creeks and several tributaries run through the City of Atascadero: Graves, Atascadero, and Paloma Creeks. All three drain into the Salinas River, which runs along the eastern boundary of the city. The other main aquatic feature that plays a vital role in the community is Atascadero Lake.

Salinas River

The Salinas River defines the eastern boundary of Atascadero. It is the principal river system on the Central Coast of California. It flows northward approximately 170 miles from San Luis Obispo County, through Monterey County, and emptying into Monterey Bay near the City of Marina (Upper Salinas-Las Tablas Resource Conservation District [US-LTRCD] 2012, 2014). The central part of the channel can be characterized by large washes, braided channels, and open water habitat characteristic of a larger river, as shown in the photographs below. The Salinas River Riparian corridor consists of mature, multi-layered woodland habitat with sycamore, cottonwood, and willow (*Salix* spp.) that provide habitat for many species of songbirds and raptors. However, urban and agricultural practices have caused habitat degradation and alteration over time. For example, illegal off-road use of the Salinas River causes displacement of the riverbed, pollution of the river, and destruction of riparian vegetation (US-LTRCD 2018).


Salinas River: Photo taken from Halcon Road, facing north (downstream) and south (upstream).

Graves Creek

Graves Creek is a tributary of the Salinas River. It flows northeast and joins the Salinas River approximately 0.25 miles south of Paso Robles Creek. Almost the entire watershed of Graves Creek falls within the study area boundary (8,498 acres) There are approximately 60 linear miles of tributaries within the watershed that eventually drain into Graves Creek and the Salinas River. Graves Creek itself stretches approximately 7.5 linear miles in a northeasterly direction across the study area. The headwaters start in the northwestern portion of the study area and meander eastward through rural estate and rural residential parcels. The riparian canopy in the upper reaches is dominated by oaks and California bay trees. The riparian canopy in the middle reach is dominated by oaks, willows, black walnut, and California sycamore trees. The creek abruptly turns north at Ramona Road and US 101 where it parallels the highway before flowing underneath it and eventually flowing into the Salinas River. The creek opens into a wider channel east of US 101 where it parallels the Juan Bautista de Anza Trail (de Anza trail) at the confluence with the Salinas River. In this area t,he riparian vegetation is dominated by arroyo willows and California sycamore, and the banks are dominated by coyote brush.

Graves Creek provides important wildlife habitat but is heavily impacted by residential development. Historically (prior to the 1950s) Graves creek supported an abundant population of steelhead (*Oncorhynchus mykiss irideus*) (US-LTRCD 2002) and likely supported populations of foothill yellow-legged frog (*Rana boylii*) and California red-legged frog (*Rana draytonii*), but most of these species were extirpated from this area in the late 1970s. Nevertheless, Graves Creek still provides an important wildlife movement corridor connecting the Santa Lucia Mountain Range to the Salinas River Valley. There are historic accounts that steelhead runs would start in January and end in March, and depending on the rains, could bring steelhead upstream through May (US-LTRCD 2002). Based on historical occurrence data the entirety of Graves Creek has been designated as critical habitat for steelhead.

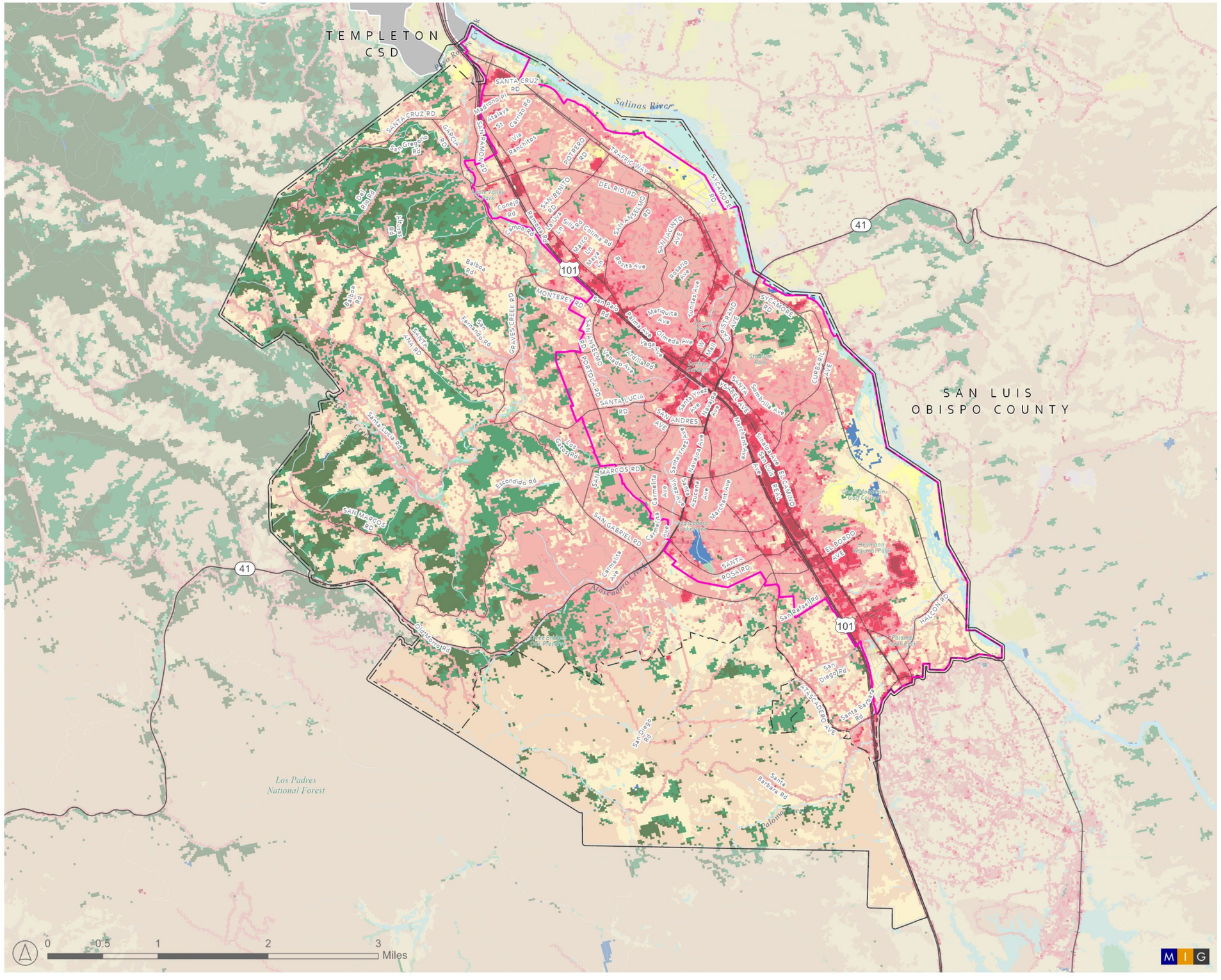

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Figure 5-4
NLCD Land Cover

Basemap Features
- Atascadero City Limits
- Atascadero Planning Area
- Urban Services Line
- Rivers + Waterbodies
- Major Roads + Freeways

NLCD Land Cover
- Open Water
- Developed Open Space
- Developed Low Intensity
- Developed Medium Intensity
- Developed High Intensity
- Barren Land
- Deciduous Forest
- Evergreen Forest
- Mixed Forest
- Shrub/Scrub
- Grassland/Herbaceous
- Pasture/Hay
- Cultivated Crops
- Woody Wetlands
- Emergent Herbaceous Wetlands

Source(s):
Esri, CA State Open Data, County of San Luis Obispo, City of Atascadero 2023.

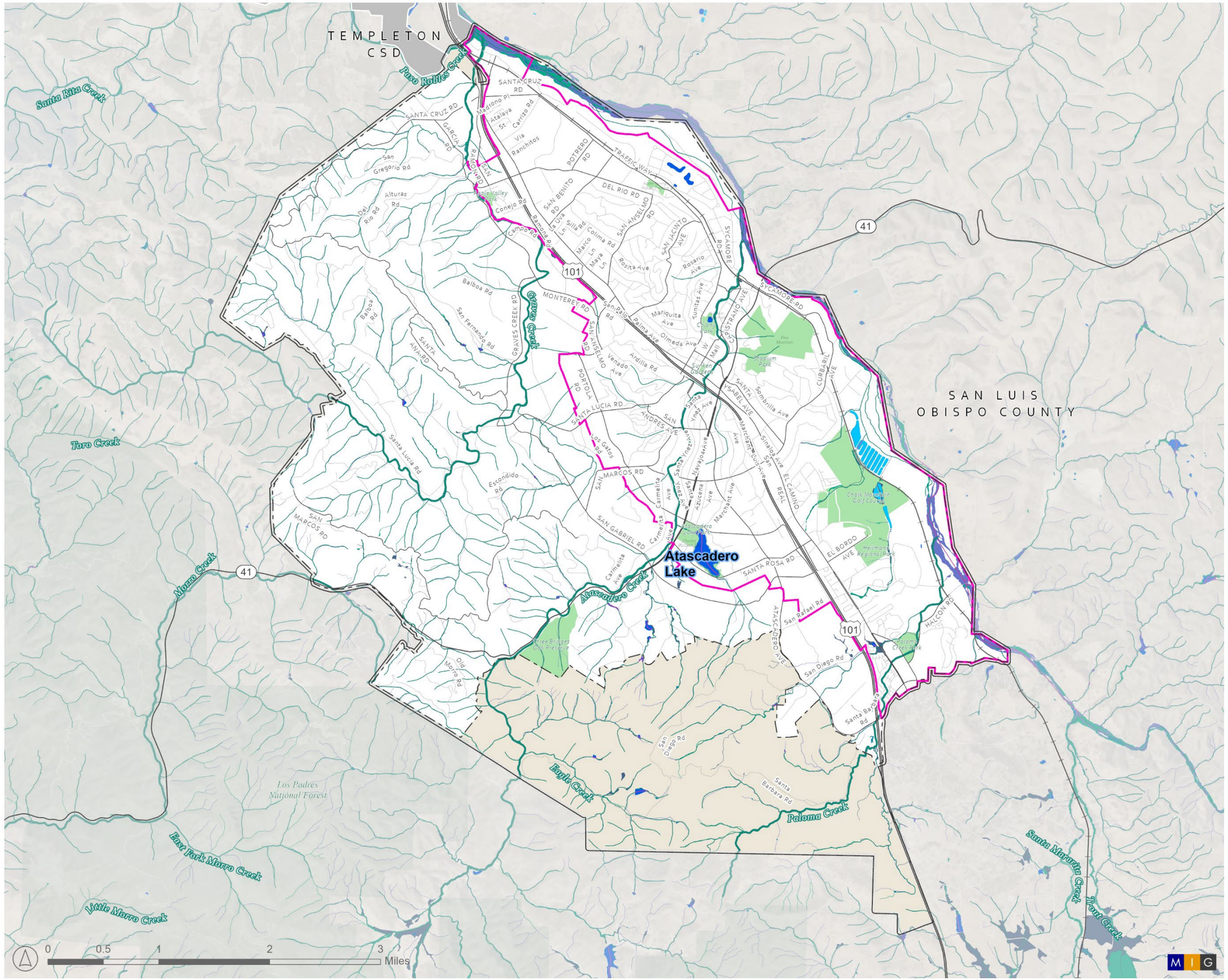

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Figure 5-5
Aquatic Resources

Basemap Features
- Atascadero City Limits
- Atascadero Planning Area
- Atascadero Sphere of Influence
- Urban Services Line
- Parks + Open Space
- Major Roads + Freeways

National Hydrology Dataset (NHD)
- Stream/River
- Artificial Path
- Lake/Pond
- Reservoir

National Wetland Inventory (NWI)
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

Source(s):
Esri, CA State Open Data, County of San Luis Obispo, City of Atascadero 2023.


Graves Creek: Left photo taken on North Ferrocarril Road bridge, facing east (downstream). Right photo taken on Santa Lucia Road bridge, facing north (downstream).

Atascadero Creek

Atascadero Creek is a tributary of the Salinas River that flows eastward, parallel to SR 41. Its two main tributaries are Eagle and Hale Creeks. The study area includes approximately 6,427 acres of the Atascadero Creek watershed. There are approximately 42 linear miles of tributaries within the watershed that eventually drain into Atascadero Creek and the Salinas River. Atascadero Creek is an intermittent stream that stretches 6.7 linear miles across the study area from west to east. Riparian vegetation ranges from willow scrub to multi-layer mature riparian woodland with cottonwood, sycamore, black walnut, and willow. The creek has been highly impacted by urban development. Historically, problems of illegal dumping, off-road vehicles (ORVs) and urban pollution have significantly degraded the quality of the habitat, particularly for key aquatic species, such as steelhead (US-LTRCD 2012, 2014).


Atascadero Creek: Left photo taken on Lewis Avenue bridge, facing west (upstream), adjacent to City of Atascadero government offices downtown. Right photo taken from Curbaril Avenue pedestrian bridge, facing south (upstream).

Paloma Creek

The study area encompasses approximately 7.5 linear miles of Paloma Creek, approximately 4,891 acres of the Paloma Creek-Salinas River watershed, and approximately 18 linear miles of tributaries. The creek flows east and northeast in the southern portion of the study area before eventually flowing into the Salinas River. This creek has been heavily impacted by

grazing. Accessible reaches generally lack extensive riparian vegetation and the channels are highly incised. Riparian vegetation consists of arroyo willows, coyote brush, and a few scattered oak trees. Several areas along Paloma Creek provide opportunities for riparian plantings and creek restoration projects, such as the stretch that crosses through Paloma Creek Park, as shown in the photos below.


Paloma Creek: Left photo taken on Atascadero Road bridge, facing south (upstream). Right photo taken on Viejo Camino bridge, facing east (downstream) along Paloma Creek Park.

Atascadero Lake

Atascadero Lake is situated approximately 1.25 miles southwest of the intersection between US 101 and SR 41. Prior to being a perennial lake, it was first a low-lying area fed by rainfall and runoff that naturally filled with water then receded during the summer heat. This natural basin was engineered into a larger lake as early as 1913 by the founder of Atascadero, E.G. Lewis. There have been recent efforts by community groups to maintain water quality and water levels in the lake. It is an important recreational area for the community and is regularly stocked with trout for recreational fishing opportunities. It supports important wetland vegetation that attracts waterfowl and other migratory bird species.


Atascadero Lake: Photos taken from deck of Pavilion, facing south (left photo) and north (right photo).

Existing Open Space Areas

The open space areas and parks within the study area are primarily focused on providing recreational opportunities for city residences. There are approximately 1,111 acres within the study area zoned open space, including approximately 180 acres of Annual Grassland, 206 acres Of Blue Oak-Foothill Pine, 168 acres of Coast Live Oak Woodland, 58 acres of Blue Oak Woodland, 27 acres of Lacustrine, and 17 acres of Mixed Chaparral. City-owned parks include Atascadero Lake Park, Colony Park, Paloma Creek Park, Sunken Gardens Park, Apple Valley Park, and Stadium Park. Non-City-owned parks include Heilmann Regional Park, Chalk Mountain Golf Course, and Faces of Freedom Veterans Memorial. Immediately west of the study area is the Los Padres National Forest. The preservation and maintenance of these parks provide important recreational opportunities for residents, along with aesthetic value and important pockets of urban wildlife habitat. For example, Atascadero Lake Park provides important stopover habitat for migrating waterfowl. In addition, the City's tree replacement program identifies receiver sites for replanting, a majority of which are outside of formal existing parklands.

5.5 Special-Status Species

Special-Status Plant Species

For the purposes of this chapter, special-status plant species are defined as the following:

Plants listed or proposed for listing as threatened or endangered under the FESA (50 CFR Section 17.12 for listed plants and various notices in the *Federal Register* for proposed species).
Plants that are candidates for possible future listing as threatened or endangered under the FESA.
Plants that meet the definitions of rare or endangered species under CEQA (State CEQA Guidelines Section 15380).
Plants considered by the CNPS to be "rare, threatened, or endangered" in California (CNPS CRPR 1A, 1B, 2A, and 2B in CNPS 2022b).
Plants listed by the CNPS as plants about which we need more information and plants of limited distribution (Ranks 3 and 4 in CNPS 2022b).
Plants listed or proposed for listing by the State of California as threatened or endangered under the CESA (14 CCR Section 670.5).
Plants listed under the NPPA (CFGC Section 1900 et seq.).
Plants considered sensitive by other Federal agencies (i.e., U.S. Forest Service, U.S. Bureau of Land Management), State and local agencies, or jurisdictions.

The background review identified the potential for 92 taxa (plants and lichen) to occur within and around the study area (see **Table 5-4**). Based on an analysis of CNDDB occurrence records and suitable vegetation and habitats within the study area, it was determined that populations of the following eight special-status plant species occur in the study area:

Santa Margarita manzanita (*Arctostaphylos pilosula*)
Mile's milk vetch (*Astragalus didymocarpus* var. *milesianus*)
La Panza mariposa-lily (*Calochortus obispoensis*)
straight-awned spineflower (*Chorizanthe rectispina*)
Eastwood's larkspur (*Delphinium parryi* ssp. *eastwoodiae*)
yellow-flowered eriastrum (*Eriastrum luteum*)

Ojai fritillary (*Fritillaria ojaiensis*)
mesa horkelia (*Horkelia cuneata* var. *puberula*).

There are also suitable habitat conditions for the following four additional special-status plant species:

Douglas' fiddleneck (*Amsinckia douglasiana*)
San Luis Obispo owls clover (*Castilleja densiflora* ssp. *obispoensis*)
Cuesta Ridge thistle (*Cirsium occidentale* var. *lucianum*)
shining navarretia (*Navarretia nigelliformis* ssp. *radians*).

Finally, there are marginal conditions present to potentially support habitat for the following 13 special-status plant species:

Hoover's bent grass (*Agrostis hooveri*)
chaparral ragwort (*Senecio aphanactis*)
Salinas milk-vetch (*Astragalus macrodon*)
dwarf calycadenia (*Calycadenia villosa*)
Palmer's spineflower (*Chorizanthe palmeri*)
paniculate tarplant (*Deinandra paniculate*)
small-flowered gypsum-loving larkspur (*Delphinium gypsophilum* ssp. *parviflorum*)
San Benito poppy (*Eschscholzia hypecoides*)
stinkbells (*Fritillaria agrestis*)
small-leaved lomatium (*Lomatium parvifolium*)
spreading navarretia (*Navarretia fossalis*)
hooked popcornflower (*Plagiobothrys uncinatus*)
chaparral ragwort (*Senecio aphanactis*)

Table 5-4: Special-Status Plant Species in the Vicinity of the Study Area

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CRPR	Rationale for Expecting Presence or Absence
Bristlecone fir *Abies bracteata*	Rocky sites in broadleaved upland forest, chaparral, lower montane coniferous forest, and riparian woodland. Elevation: 183–1,600 meters.	--	--/--/IB.3	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area does not support the appropriate topographic conditions and vegetative communities for this species.
Hoover's bent grass *Agrostis hooveri*	Sandy sites in chaparral, cismontane woodland, valley, and foothill grassland. Elevation: 60–600 meters.	April–July	--/--/1B.2	**Marginal Conditions Present; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area contains the appropriate vegetation community but lacks the necessary mesic conditions for this species.
Douglas' fiddleneck *Amsinckia douglasiana*	Cismontane woodland and valley foothill grassland. Micro habitat: Monterey shale in dry conditions. Elevation: 0–1,950 meters.	March–May	--/--/4.2	**Suitable Conditions Present; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The appropriate vegetation community and environmental conditions are present.
Oval-leaved snapdragon *Antirrhinum ovatum*	Clay or gypsum, often alkaline soils in chaparral, cismontane woodland, pinyon and juniper woodland, and valley and foothill grassland. Elevation: 200–1,000 meters	May–November	--/--/4.2	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks necessary soil conditions.

Table 5-4: Special-Status Plant Species in the Vicinity of the Study Area

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CRPR	Rationale for Expecting Presence or Absence
Santa Lucia manzanita *Arctostaphylos luciana*	Chaparral with shale outcrops. Elevation: 350–850 meters.	February–March	--/--/1B.2	**Marginal Conditions Present; Species Absent.** The CNDDB documents one occurrence within 3 miles of the study area. Marginally appropriate vegetation community is present; however, the study area is farther interior than the known range of the species.
Morro manzanita *Arctostaphylos morroensis*	Chaparral, cismontane woodland, and coastal scrub, on stabilized coastal dunes. Elevation: 5–205 meters.	December–March	FT/--/1B.1	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area does not support coastal dune scrub.
Bishop manzanita *Arctostaphylos obispoensis*	Closed-cone coniferous forest, chaparral, and cismontane woodland. Elevation: 150–980 meters.	February–June	--/--/4.3	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area does not contain ultramafic soils.
Oso manzanita *Arctostaphylos osoensis*	Chaparral and cismontane woodland (dacite porphyry buttes). Elevation: 300–500 meters.	February–March	--/--/1B.2	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks dacite outcrops.

Table 5-4: Special-Status Plant Species in the Vicinity of the Study Area

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CRPR	Rationale for Expecting Presence or Absence
Pecho manzanita *Arctostaphylos pechoensis*	Closed coniferous forest, chaparral, and coastal scrub on siliceous shale. Elevation: 125–850 meters.	November–March	--/--/1B.2	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area is farther interior than the known range of the species.
Santa Margarita manzanita *Arctostaphylos pilosula*	Closed coniferous forest, chaparral, and cismontane woodland on shale soils. Elevation: 170–1,100 meters.	December–March	--/--/1B.2	**Suitable Conditions Present; Species Present.** This species occurs in small patches of chaparral in the southwestern portion of the study area.
Dacite manzanita *Arctostaphylos tomentosa* ssp. *daciticola*	Chaparral and cismontane woodland (dacite porphyry buttes). Elevation: 100–300 meters.	March	--/--/1B.1	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks dacite outcrops.
Marsh sandwort *Arenaria paludicola*	Marshes and swamps. Grows through dense mats of *Typha*, *Juncus*, *Scirpus*, etc. in freshwater marsh. Elevation: 10–170 meters.	May–August	FE/SE/1B.1	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. Suitable wetland vegetation communities are absent.
Mile's milk vetch *Astragalus didymocarpus* var. *milesianus*	Coastal scrub on clay soils. Elevation: 20–90 meters.	March–June	--/--/1B.2	**Suitable Conditions Present; Species Present.** The CNDDB documents one occurrence in the eastern part of the study area.

Table 5-4: Special-Status Plant Species in the Vicinity of the Study Area

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CRPR	Rationale for Expecting Presence or Absence
Salinas milk-vetch *Astragalus macrodon*	Chaparral, cismontane woodland, and valley and foothill grassland. Micro habitat: sandstone, serpentinite, and shale. In openings. Elevation: 250–950 meters.	April–July	--/--/4.3	**Marginal Conditions Present; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. Marginally suitable soil types are present; however, suitable vegetation community is absent on appropriate soils.
Coulter's saltbush *Atriplex coulteri*	Coastal bluff scrub, coastal dunes, coastal scrub, and valley and foothill grassland (alkaline or clay). Elevation: 3–460 meters.	March–October	--/--/1B.2	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. Saline/alkaline soils are absent.
Club-haired mariposa lily *Calochortus clavatus* var. *clavatus*	Chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland (typically serpentinite, clay, or rocky soils). Elevation: 75–1,300 meters.	May–June	--/--/4.3	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks ultramafic soils.
San Luis mariposa-lily *Calochortus obispoensis*	Dry serpentine, generally open chaparral. Elevation: 100–500 meters.	May–June	--/--/1B.2	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks ultramafic soils.
La Panza mariposa lily *Calochortus simulans*	Chaparral, coastal scrub, and valley and foothill grassland. Often in serpentine grassland. Elevation: 75–665 meters.	May–July	--/--/1B.3	**Suitable Conditions Present; Species Present.** The CNDDB documents occurrences within 1 mile southeast of the study area and in the southwest part of the study area.

Table 5-4: Special-Status Plant Species in the Vicinity of the Study Area

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CRPR	Rationale for Expecting Presence or Absence
Dwarf calycadenia *Calycadenia villosa*	Chaparral, cismontane woodland, meadows and seeps, and valley and foothill grassland (rocky). Elevation: 240–1,350 meters.	May–October	--/--/1B.1	**Marginal Conditions Present; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. Suitable vegetation communities are present; however, suitable climactic conditions are absent.
Cambria morning-glory *Calystegia subacaulis* ssp. *episcopalis*	Grassland and rocky areas associated with chaparral and cismontane woodland. Elevation: 60–500 meters.	April–May	--/--/4.2	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks coastal grassland communities.
Hardham's evening-primrose *Camissoniopsis hardhamiae*	Annual herb. Sandy, decomposed carbonate soils. Especially in disturbed or burned areas among chaparral and cismontane woodland. Elevation: 140–945 meters.	March–May	--/--/1B.2	**Suitable Conditions Absent; Species Absent.** The CNDDB documents occurrences within 3 miles to the southeast of the study area; however, the study area lacks necessary limestone soils.
San Luis Obispo sedge *Carex obispoensis*	Closed-cone coniferous forests, chaparral, coastal prairie, coastal scrub, and valley and foothill grassland. Usually adjacent to seeps, springs, stream sides or other water source with sand, clay, or serpentine. Elevation: 5–790 meters.	April–June	--/--/1B.2	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks ultramafic soils.

Table 5-4: Special-Status Plant Species in the Vicinity of the Study Area

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CRPR	Rationale for Expecting Presence or Absence
San Luis Obispo owls clover *Castilleja densiflora* ssp. *obispoensis*	Valley and foothill grassland. Elevation: 0–215 meters.	March–May	--/--/1B.2	**Marginal Conditions Present; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area supports appropriate vegetation communities; however, these communities may be too dry.
California jewelflower *Caulanthus californicus*	Sandy sites in chenopod scrub, pinyon and juniper woodland, and valley and foothill grassland. Elevation: 61–1,000 meters.	February–May	FE/SE/1B.1	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks appropriate vegetation communities and environmental conditions.
Lemmon's jewelflower *Caulanthus lemmonii*	Pinyon and juniper woodland and valley and foothill grassland. Elevation: 80–1,220 meters	March–May	--/--/1B.2	**Marginal Conditions Present; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. Suitable grassland habitat present; however, the study area is outside of the known range of the species.
San Luis Obispo ceanothus *Ceanothus thyrsiflorus* var. *obispoensis*	Perennial shrub. Dacite soils among chaparral and cismontane woodland. Currently only known from Morro Bay area. Elevation: 140–225 meters	June	--/--/1B.1	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks dacite outcrops.

Table 5-4: Special-Status Plant Species in the Vicinity of the Study Area

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CRPR	Rationale for Expecting Presence or Absence
Congdon's tarplant *Centromadia parryi* ssp. *congdonii*	Depressional areas with clay soil and valley and foothill grassland. Elevation: 1–230 meters.	May–November	--/--/1B.1	**Marginal Conditions Present; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The appropriate vegetation community is present; however, appropriate soils within the vegetation community are absent.
Coastal goosefoot *Chenopodium littoreum*	Coastal dunes. Elevation: 10–30 meters.	April–August	--/--/1B.2	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks coastal dunes.
Dwarf soaproot *Chlorogalum pomeridianum* var. *minus*	Chaparral habitats with serpentine soils. Elevation: 305–1,000 meters.	May–August	--/--/1B.2	**Marginal Conditions Present; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. Chaparral is present within the study area; however, the study area lacks ultramafic soils.
Purple amole *Chlorogalum purpureum*	Gravelly and clay sites in chaparral, cismontane woodland, and valley and foothill grassland. Elevation: 205–385 meters.	April–June	FT/--/1B.1	**Marginal Conditions Present; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The grassland habitats in the study area lack the necessary soil.

Table 5-4: Special-Status Plant Species in the Vicinity of the Study Area

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CRPR	Rationale for Expecting Presence or Absence
Point Reyes salty birds-beak *Chloropyron maritimum ssp. palustre*	Annual herb (hemiparasitic) that occurs in marshes and swamps (coastal salt). Elevation: 0–10 meters.	June–October	--/--/1B.2	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks coastal salt marshes.
Salt marsh bird's beak *Chloropyron maritimum* ssp. *maritimum*	Coastal dunes, marshes, and swamps. Elevation: 0–30 meters.	May–October	FE/SE/1B.2	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks coastal salt marshes.
Irish Hills spineflower *Chorizanthe aphanantha*	Annual herb. Observed in Irish Hills area of San Luis Obispo County. Reportedly occurs in chaparral, foothill woodland, coastal sage scrub, and closed-cone pine forest; however, little is known about species.	April–August	--/--/1B.1	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks ultramafic soils.
Brewer's spineflower *Chorizanthe breweri*	Chaparral, cismontane woodland, coastal scrub, closed-cone coniferous forest; rocky or gravelly serpentine sites; usually in barren areas. Elevation: 45–800 meters.	May–August	--/--/1B.3	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks ultramafic soils.
Douglas' spineflower *Chorizanthe douglasii*	Chaparral, cismontane woodland, coastal scrub, and lower montane coniferous forest. Elevation: 55–1,600 meters.	April–July	--/--/--4.3	**Suitable Conditions Present; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area.

Table 5-4: Special-Status Plant Species in the Vicinity of the Study Area

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CRPR	Rationale for Expecting Presence or Absence
Palmer's spineflower *Chorizanthe palmeri*	Chaparral, cismontane woodlands, and valley and foothill grassland (serpentinite). Elevation: 60–700 meters.	April–August	--/--/4.2	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks ultramafic soils.
Straight-awned spineflower *Chorizanthe rectispina*	Chaparral, cismontane woodland, and coastal scrub. Often on granite in chaparral. Elevation: 355–1,035 meters.	April–July	--/--/1B.2	**Suitable Conditions Present; Species Present.** The CNDDB documents one occurrence in chaparral in the southwestern portion of the study area.
Chorro Creek bog thistle *Cirsium fontinale* var. *obispoense*	Chaparral, cismontane woodlands; serpentine seeps or bogs. Elevation: 35–380 meters.	February–September	FE/SE/1B.2	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks serpentine seeps.
Cuesta Ridge thistle *Cirsium occidentale* var. *lucianum*	Chaparral (openings) on serpentinite, often on steep rocky slopes and disturbed roadsides. Elevation: 500–750 meters.	April–June	--/--/1B.2	**Marginal Conditions Present; Species Absent.** The CNDDB documents one occurrence to the southwest within 3 miles of the study area. The study area lacks serpentinite.
Popcorn lichen *Cladonia firma*	Coastal dunes and coastal scrub (soil, detritus and moss). No blooming period. Elevation: 30–75 meters.	N/A	--/--/2B.1	**Suitable Conditions Absent; Species Absent.** The study area lacks coastal dunes.

Table 5-4: Special-Status Plant Species in the Vicinity of the Study Area

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CRPR	Rationale for Expecting Presence or Absence
Pismo clarkia *Clarkia speciosa* ssp. *immaculata*	Sandy soils, openings in chaparral, cismontane woodland, and valley and foothill grassland. On ancient sand dunes not far from coast. Elevation: 25–185 meters.	May–July	FE/SR/1B.1	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks ancient dunes and is too far removed from the coast.
Paniculate tarplant *Deinandra paniculata*	Coastal scrub, valley and foothill grassland, and vernal pools. Micro habitats: sometimes sandy, but usually vernally mesic. Elevation: 25–940 meters	(March) April–November	--/--/4.2	**Marginal Conditions Present; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks vernal pools.
Small-flowered gypsum-loving larkspur *Delphinium gypsophilum ssp. parviflorum*	Rocky, clay, and serpentinite soils in cismontane woodland and valley and foothill grassland. Elevation: 190–350 meters.	March–June	--/--/3.2	**Marginal Conditions Present; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The appropriate vegetation community is present; however, appropriate soils are absent.
Dune larkspur *Delphinium parryi ssp. blochmaniae*	Maritime chaparral and coastal dunes with sandy or rocky soils. Elevation: 0–200 meters.	April–May	--/--/1B.2	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks maritime chaparral and coastal dunes.

Table 5-4: Special-Status Plant Species in the Vicinity of the Study Area

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CRPR	Rationale for Expecting Presence or Absence
Eastwood's larkspur *Delphinium parryi* ssp. *eastwoodiae*	Chaparral and valley and foothill grassland (serpentinite, coastal). Elevation: 75–500 meters.	February–March	--/--/1B.2	**Marginal Conditions Present; Species Present.** The CNDDB documents one occurrence in the center of the study area. The study area contains the appropriate vegetation but lacks ultramafic soils.
Umbrella larkspur *Delphinium umbraculorum*	Perennial herb. Occurs in cismontane woodland. Elevation: 400–1,600 meters.	April–June	--/--/1B.3	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks the required mesic conditions.
Beach spectaclepod *Dithyrea maritima*	Coastal dunes, seashores, and sandy places with coastal scrub. Elevation: 3–50 meters.	March–May	--/ST/1B.1	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks coastal dune habitat.
Betty's dudleya *Dudleya abramsii* ssp. *bettinae*	Coastal scrub, valley and foothill grassland, and chaparral; rocky barren serpentine exposures. Elevation: 20–180 meters.	May–July	--/--/1B.2	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks ultramafic soils.
Mouse-gray dudleya *Dudleya abramsii* ssp. *murina*	Serpentine outcrops in chaparral and cismontane woodland. Elevation: 90–300 meters.	May–June	--/--/1B.3	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks ultramafic soils.

Table 5-4: Special-Status Plant Species in the Vicinity of the Study Area

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CRPR	Rationale for Expecting Presence or Absence
Yellow-flowered eriastrum *Eriastrum luteum*	Bare sandy decomposed granite slopes in broadleaved upland forest, chaparral, and cismontane woodland. Elevation: 240–580 meters.	May–June	--/--/1B.2	**Suitable Conditions Present; Species Present.** The CNDDB documents one occurrence in the center of the study area.
Blochman's leafy daisy *Erigeron blochmaniae*	Coastal scrub and coastal dunes. Elevation: 0–185 meters.	July–October	--/--/1B.2	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks coastal dune habitat.
Indian Knob mountainbalm *Eriodictyon altissimum*	Ridges in open, disturbed areas within chaparral on Pismo sandstone. Elevation: 95–245 meters.	March–June	FE/SE/1B.1	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks appropriate soil/vegetation community.
Hoover's button-celery *Eryngium aristulatum* var. *hooveri*	Alkaline depressions, vernal pools, roadside ditches, and other wet places near the coast. Elevation: 1–50 meters.	July	--/--/1B.1	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks vernal pools.
Irish Hills monkeyflower *Erythranthe serpentinicola*	Rocky, mesic openings in serpentine chaparral. Elevation: 60–360 meters.	Unknown	--/--/1B.1	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks ultramafic soils.

Table 5-4: Special-Status Plant Species in the Vicinity of the Study Area

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CRPR	Rationale for Expecting Presence or Absence
San Benito poppy Eschscholzia hypecoides	Chaparral, cismontane woodland, and valley and foothill grasslands on clayey serpentinite soils. Elevation: 200–1,500 meters.	March–June	--/--/4.3	**Marginal Conditions Present; Species Absent.** The study area lacks ultramafic soils.
San Joaquin spearscale *Extriplex joaquinana*	Seasonal alkali wetlands or alkali sink scrub. Elevation: 0–800 meters.	April–September	--/--/1B.2	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks alkali wetlands.
Stinkbells *Fritillaria agrestis*	Vertic clayey soils in chaparral, cismontane woodland, and valley and foothill grasslands. Elevation: 10–1,555 meters.	March–June	--/--/4.2	**Marginal Conditions Present; Species Absent.** The CNNDB does not document any occurrences within 3 miles of the study area. The soil types may not be ideal.
Ojai fritillary *Fritillaria ojaiensis*	Rocky sites in chaparral, broadleaved upland forest, lower montane coniferous forests, and cismontane woodland, sometimes roadsides. Elevation: 95–1,140 meters.	February–May	--/--/1B.2	**Suitable Conditions Present; Species Present.** The CNDDB documents one occurrence in the chapparal in the southwestern portion of the study area.
Mesa horkelia *Horkelia cuneata* var. *puberula*	Sandy or gravelly sites in chaparral, cismontane woodland, or coastal scrub. Elevation: 15–1,645 meters.	March–July	--/--/1B.1	**Marginal Conditions Present; Species Present**. The CNDDB documents one occurrence in the center of the study area, which was slightly outside of the known range of the species.

Table 5-4: Special-Status Plant Species in the Vicinity of the Study Area

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CRPR	Rationale for Expecting Presence or Absence
Kellogg's horkelia *Horkelia cuneata* var. *sericea*	Sandy or gravelly soils in openings in closed-cone coniferous forest, coastal scrub, coastal dunes, and chaparral. Elevation: 5–430 meters.	April–August	--/--/1B.1	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks mesic coastal conditions.
Santa Lucia dwarf rush *Juncus luciensis*	Wet and sandy soils in vernal pools, ephemeral drainages, wet meadows, and streamsides. Elevation: 280–2,035 meters.	April–August (fruiting time)	--/--/1B.2	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks mesic conditions and vernal pools.
Perennial goldfields *Lasthenia californica* ssp. *macrantha*	Coastal bluff scrub, coastal dunes, and coastal scrub. Elevation: 5–185 meters.	May–August	--/--/1B.2	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks coastal dune habitat.
Coulter's goldfields *Lasthenia glabrata* ssp. *coulteri*	Alkaline soils in playas, sinks, and grasslands. Elevation: 1–1,375 meters.	April–May	--/--/1B.1	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks alkaline conditions.
Salinas valley goldfields *Lasthenia leptalea*	Openings in cismontane woodland and valley and foothill grasslands. Elevation: 60–1,065 meters.	February–May	--/--/4.3	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area outside of species' range.

Table 5-4: Special-Status Plant Species in the Vicinity of the Study Area

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CRPR	Rationale for Expecting Presence or Absence
Jones' layia *Layia jonesii*	Clay soils and serpentine outcrops in chaparral and foothill grassland. Elevation: 5–245 meters.	March–May	--/--/1B.2	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks ultramafic soils.
Jared's pepper-grass *Lepidium jaredii* ssp. *jaredii*	Alkali flats and sinks with sandy, alkaline soils in foothill grasslands. Elevation: 335–1,005 meters.	March–April	--/--/1B.2	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks alkaline conditions.
Blochman's leafy daisy *Erigeron blochmaniae*	Coastal scrub and coastal dunes. Elevation: 0–185 meters.	July–October	--/--/1B.2	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks coastal dune habitat.
Indian Knob mountainbalm *Eriodictyon altissimum*	Ridges in open, disturbed areas within chaparral on Pismo sandstone. Elevation: 95–245 meters.	March–June	FE/SE/1B.1	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks the appropriate soil/vegetation community.
Hoover's button-celery *Eryngium aristulatum* var. *hooveri*	Alkaline depressions, vernal pools, roadside ditches, and other wet places near coast. Elevation: 1–50 meters.	July	--/--/1B.1	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks vernal pools.

Table 5-4: Special-Status Plant Species in the Vicinity of the Study Area

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CRPR	Rationale for Expecting Presence or Absence
Irish Hills monkeyflower *Erythranthe serpentinicola*	Rocky, mesic openings in serpentine chaparral. Elevation: 60–360 meters.	Unknown	--/--/1B.1	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks ultramafic soils.
San Benito poppy *Eschscholzia hypecoides*	Chaparral, cismontane woodland, and valley and foothill grasslands on clayey serpentinite soils. Elevation: 200–1,500 meters.	March–June	--/--/4.3	**Marginal Conditions Present; Species Absent.** The study area lacks ultramafic soils.
San Joaquin spearscale *Extriplex joaquinana*	Occurs in seasonal alkali wetlands or alkali sink scrub. Elevation: 0–800 meters.	April–September	--/--/1B.2	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks alkali wetlands.
Stinkbells *Fritillaria agrestis*	Vertic clayey soils in chaparral, cismontane woodland, and valley and foothill grasslands. Elevation: 10–1,555 meters.	March–June	--/--/4.2	**Marginal Conditions Present; Species Absent.** The CNNDB does not document any occurrences within 3 miles of the study area. The soil types may not be ideal.
Ojai fritillary *Fritillaria ojaiensis*	Rocky sites in chaparral, broadleaved upland forest, lower montane coniferous forests, and cismontane woodland, sometimes roadsides. Elevation: 95–1,140 meters.	February–May	--/--/1B.2	**Suitable Conditions Present; Species Present.** The CNDDB documents one occurrence in the chapparal in the southwestern portion of the study area.

Table 5-4: Special-Status Plant Species in the Vicinity of the Study Area

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CRPR	Rationale for Expecting Presence or Absence
Mesa horkelia *Horkelia cuneata* var. *puberula*	Sandy or gravelly sites in chaparral, cismontane woodland, or coastal scrub. Elevation: 15–1,645 meters.	March–July	--/--/1B.1	**Marginal Conditions Present; Species Present.** The CNDDB documents one occurrence in the center of the study area, which is slightly outside of the known range of the species.
Kellogg's horkelia *Horkelia cuneata* var. *sericea*	Sandy or gravelly soils in openings in closed-cone coniferous forest, coastal scrub, coastal dunes, and chaparral. Elevation: 5–430 meters.	April–August	--/--/1B.1	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks mesic coastal conditions.
Santa Lucia dwarf rush *Juncus luciensis*	Wet and sandy soils in vernal pools, ephemeral drainages, wet meadows, and streamsides. Elevation: 280–2,035 meters.	April–August (fruiting time)	--/--/1B.2	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks mesic conditions and vernal pools.
Perennial goldfields *Lasthenia californica* ssp. *macrantha*	Coastal bluff scrub, coastal dunes, and coastal scrub. Elevation: 5–185 meters.	May–August	--/--/1B.2	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks coastal dune habitat.
Coulter's goldfields *Lasthenia glabrata* ssp. *coulteri*	Alkaline soils in playas, sinks, and grasslands. Elevation: 1–1,375 meters.	April–May	--/--/1B.1	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks alkaline conditions.

Table 5-4: Special-Status Plant Species in the Vicinity of the Study Area

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CRPR	Rationale for Expecting Presence or Absence
Salinas valley goldfields *Lasthenia leptalea*	Openings in cismontane woodland and valley and foothill grasslands. Elevation: 60–1,065 meters.	February–May	--/--/4.3	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area is outside the known range of the species.
Jones' layia *Layia jonesii*	Clay soils and serpentine outcrops in chaparral and foothill grassland. Elevation: 5–245 meters.	March–May	--/--/1B.2	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks ultramafic soils.
Jared's pepper-grass *Lepidium jaredii* ssp. *jaredii*	Alkali flats and sinks with sandy, alkaline soils in foothill grasslands. Elevation: 335–1005 meters.	March–April	--/--/1B.2	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks alkaline conditions.
Small-leaved lomatium *Lomatium parvifolium*	Serpentine in chaparral, closed-cone coniferous forest, coastal scrub, and riparian woodland. Elevation: 20–700 meters.	February–May	--/--/4.2	**Marginal Conditions Present; Species Absent.** The appropriate vegetation community is present; however, ultramafic soils are absent.
San Luis Obispo County lupine *Lupinus ludovicianus*	Open areas on sandy soils in chaparral and cismontane woodland. Elevation: 85–525 meters.	April–July	--/--/1B.2	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area is outside the known range of the species.

Table 5-4: Special-Status Plant Species in the Vicinity of the Study Area

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CRPR	Rationale for Expecting Presence or Absence
Jones' bush-mallow *Malacothamnus jonesii*	Open chaparral and cismontane woodlands. Elevation: 160–1,075 meters	April–October	--/--/4.2	**Marginal Conditions Present; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The chaparral within the study area is likely too dense/closed.
Santa Lucia bush-mallow *Malacothamnus palmeri* var. *palmeri*	Dry, rocky, chaparral slopes near the summit. Elevation: 3–670 meters.	May–July	--/--/1B.2	**Marginal Conditions Present; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The chaparral within the study area is likely too dense/closed.
Oregon meconella *Meconella oregana*	Open, moist places in coastal prairie and coastal scrub. Elevation: 60–640 meters.	March–May	--/--/1B.1	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks coastal conditions.
Palmer's monardella *Monardella palmeri*	Serpentine in cismontane woodlands and chaparral. Elevation: 90–945 meters.	June–August	--/--/1B.2	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks ultramafic soils.
Southern curly-leaved monardella *Monardella sinuata* ssp. *sinuata*	Sandy soils in coastal dunes, coastal scrub, chaparral, and cismontane woodland. Elevation: 20–305 meters	April–September	--/--/1B.2	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks coastal conditions.

Table 5-4: Special-Status Plant Species in the Vicinity of the Study Area

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CRPR	Rationale for Expecting Presence or Absence
Woodland woollythreads *Monolopia gracilens*	Sandy and rocky soils on grassy sites or in openings in chaparral and cismontane woodland. Occasionally on serpentine. Elevation: 120–975 meters.	March–July	--/--/1B.2	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks suitable soil conditions.
Aparejo grass *Muhlenbergia utilis*	Alkaline or serpentine meadows, seeps, marshes, swamps, and mesic sites in chaparral, coastal scrub, and cismontane woodland. Elevation: 25–2,325 meters.	October–March	--/--/2B.2	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks mesic conditions.
Spreading navarretia *Navarretia fossalis*	Vernal pools and ditches. Elevation: 15–850 meters.	April–June	FT/--/1B.1	**Marginal Conditions Present; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area is outside the known range of the species.
Shining navarretia *Navarretia nigelliformis* ssp. *radians*	Clay depressions in cismontane woodland, valley and foothill grasslands, and vernal pools. Elevation: 60–975 meters.	May–July	--/--/1B.2	**Suitable Conditions Present; Species Absent.** The CNDDB documents several occurrences within 3 miles of the study area. Focused surveys are needed.
Coast woolly-heads *Nemacaulis denudata* var. *denudata*	Coastal dunes. Elevation: 0–5 meters.	March–August	--/--/1B.2	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks coastal dune habitat.

Table 5-4: Special-Status Plant Species in the Vicinity of the Study Area

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CRPR	Rationale for Expecting Presence or Absence
Hooked popcornflower *Plagiobothrys uncinatus*	Burned and disturbed sites on sandstone outcrops and canyon sides in chaparral, cismontane woodland, and grasslands. Elevation: 210–855 meters.	April–May	--/--/1B.2	**Marginal Conditions Present; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The habitat conditions are suitable, but the study area lacks the necessary disturbance history.
Diablo Canyon blue grass *Poa diaboli*	Shale soils in chaparral, cismontane woodland, and coastal scrub, sometimes burned areas. Elevation: 115–400 meters.	March–April	--/--/1B.2	**Marginal Conditions Present; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The habitat conditions are suitable, but the study area lacks the necessary disturbance history.
Adobe sanicle *Sanicula maritima*	Moist clay or ultramafic soils in meadows, seeps, grasslands, chaparral, and coastal prairie. Elevation: 0–75 meters.	April–May	--/SR/1B.1	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks ultramafic soil.
Chaparral ragwort *Senecio aphanactis*	Drying alkaline flats in chaparral, cismontane woodland, and coastal scrub. Elevation: 20–1,020 meters.	February–May	--/--/2B.2	**Marginal Conditions Present; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. Suitable habitat is present; however, the habitat lacks alkaline conditions.

Table 5-4: Special-Status Plant Species in the Vicinity of the Study Area

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CRPR	Rationale for Expecting Presence or Absence
San Gabriel ragwort *Senecio astephanus*	Steep rocky slopes in chaparral, coastal sage scrub, and oak woodlands. Elevation: 400–1,500 meters.	April–June	--/--/4.3	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks the necessary topography.
Cuesta Pass checkerbloom *Sidalcea hickmanii* ssp. *anomala*	Rocky serpentine soil in closed-cone coniferous forests and chaparral. Elevation: 600–800 meters.	May–June	--/SR/1B.2	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks ultramafic soils and disturbance history.
Most beautiful jewelflower *Streptanthus albidus* ssp. *peramoenus*	Serpentine outcrops on ridges and slopes in chaparral, grassland, and cismontane woodland. Elevation: 90–1,040 meters.	April–June	--/--/1B.2	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks ultramafic soils.
California seablite *Suaeda californica*	Margins of coastal saltmarshes. Elevation: 0–5 meters.	July–October	FE/--/1B.1	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks coastal saltmarsh habitat.
Splitting yarn lichen *Sulcaria isidiifera*	Old-growth shrubs and oaks in coastal scrub. Elevation: 20–55 meters.	N/A	--/--/1B.1	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. Study area lacks coastal scrub habitat.

Table 5-4: Special-Status Plant Species in the Vicinity of the Study Area

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CRPR	Rationale for Expecting Presence or Absence
Twisted horsehair lichen *Sulcaria spiralifera*	Conifers in coastal scrub. Elevation: 0–90 meters.	N/A	--/--/1B.2	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks coastal scrub habitat.
Saline clover *Trifolium hyrophylum*	Mesic and alkaline sites in marshes and swamps, grasslands, and vernal pools. Elevation: 1–335 meters.	April–June	--/--/1B.2	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks mesic alkaline sites.
Caper-fruited tropidocarpum *Tropidicarpum capparideum*	Alkaline clay in valley and foothill woodlands. Elevation: 0–360 meters.	March–April	--/--/1B.1	**Suitable Conditions Absent; Species Absent.** The CNDDB does not document any occurrences within 3 miles of the study area. The study area lacks alkaline conditions.

Status Codes:
-- = no status
Federal: FE = Federally Endangered; FT = Federally Threatened
State: SE = State Endangered; ST= State Threatened; SR= State Rare
California Native Plant Society (CNPS):
Rank 1B = rare, threatened, or endangered in California and elsewhere.
Rank 2 = rare, threatened, or endangered in California, but more common elsewhere.
Rank 3 = plants that about which more information is needed.
Rank 4 = a watch list plants of limited distribution.
CBR = Considered but rejected

Threat Code:
_.1 = Seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat)
_.2 = Fairly endangered in California (20%–80% occurrences threatened)
_.3 = Not very endangered in California (<20% of occurrences threatened or no current threats known)

Rationale Terms:
Species Present: Species was or has been observed in the survey area.
Suitable Conditions Present: The appropriate habitat, soils, and elevation are present in the survey area.
Marginal Conditions Present: The appropriate habitat and/or soils are present, but other factors (past disturbances, elevation range) may preclude species occurrence.

Note(s):
1 All plant descriptions paraphrased from CNPS (2022a).
2 Suitable Conditions Absent: The survey area does not support the appropriate habitat, soils, and/or elevation for the species.
Source(s): Baldwin et al. (2012)

Special-Status Animal Species

For the purposes of this chapter, special-status animal species are defined as the following:

Animals listed or proposed for listing as threatened or endangered under the FESA (50 CFR 17.11 for listed animals and various notices in the *Federal Register* for proposed species).
Animals that are candidates for possible future listing as threatened or endangered under the FESA.
Animals that meet the definitions of rare or endangered species under CEQA (State CEQA Guidelines Section 15380).
Animals listed or proposed for listing by the State of California as threatened and endangered under the CESA (14 CCR 670.5).
Animal species considered by the State of California/CDFW to be California Species of Special Concern (SSC) or included on CDFW's Watch List (WL) (CDFW 2022a).
Animal species that are fully protected in California (CFGC Sections 3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians]).

The background review identified the potential for 53 special-status animal species to occur within and around the study area (see **Table 5-5**). There are CNDDB occurrences in the study area for the following nine special-status animal species;

obscure bumble bee (*Bombus caliginosus*)
crotch bumble bee (*Bombus crotchii*)
Atascadero June beetle (*Polyphylla nubile*)
coast range newt (*Taricha torosa*)
California red-legged frog (*Rana draytonii*)
northern California legless lizard (*Anniella pulchra*)
western pond turtle (*Emys marmoratal*)
purple martin (*Progne subis*)
golden eagle (*Aquila chrysaetos*)

There are suitable habitat conditions present, and the study area is within the range of the following 16 additional special-status animal species:

monarch butterfly (*Danaus plexippus*)
San Luis Obispo pyrg (*Pyrgulopsis taylori*)
lesser slender salamander (*Batrachoseps minor*)
Cooper's hawk (*Accipiter cooperii*)
grasshopper sparrow (*Ammodramus savannarum*)
ferruginous hawk (*Buteo regalis*)
white-tailed kite (*Elanus leucurus*)
California horned lark (*Eremophila alpestris actia*)
prairie falcon(*Falco mexicanus*)
bald eagle (*Haliaeetus leucocephalus*)
loggerhead shrike (*Lanius ludovicianus*)
pallid bat (*Antrozous pallidus*)
Townsends big-eared bat (*Corynorhinus townsendii*)
western mastiff bat (*Eumops perotis*)
Monterey dusky-footed woodrat (*Neotoma macrotis Luciana*)
American badger (*Taxidea taxus*)

Suitable habitat conditions are present in the study area for South-Central California coast steelhead Distinct Population Segment (DPS) (*Oncorhynchus mykiss irideus* pop. 9), foothill yellow-legged frog south coast DPS (*Rana boylii* pop. 6), yellow warbler (*Setophaga petechia*), and Least Bell's vireo (*Vireo bellii pusillus*); however, their populations have been extirpated from the area.

Table 5-5: Special-Status Wildlife Species in the Vicinity of the Study Area

Species Name	Habitat and Distribution	Legal Status Federal/State/ CDFW	Rationale for Expecting Presence or Absence
Brachiopods			
Vernal pool fairy shrimp *Branchinecta lynchi*	Vernal pool habitats, including depressions in sandstone, to small swale, earth slump, or basalt-flow depressions with a grassy or, occasionally, muddy bottom in grassland.	FT/--/--	**Suitable Conditions Absent.** No suitable vernal pool habitat occurs in the study area.
California linderiella *Linderiella occidentalis*	Seasonal ponds in grasslands, sandstone depressions, and alluvial flats with hardpan beneath.	--/--/SA	**Suitable Conditions Absent.** No suitable vernal pool habitat occurs in the study area.
Fish			
Tidewater goby *Eucyclogobius newberryi*	Brackish shallow lagoons and lower stream reaches where water is still, but not stagnant.	FE/--/--	**Suitable Conditions Absent.** No suitable brackish shallow lagoons and lower stream reaches occurs in the study area.
South-Central California Coast steelhead DPS *Oncorhynchus mykiss irideus* pop. 9	Clear, cool water with abundant in-stream cover, well-vegetated stream margins, relatively stable water flow, and a 1:1 pool-to-riffle ratio.	FT, CH/--/SSC	**Suitable Conditions Present; Species Absent.** The Salinas River, Graves Creek, Atascadero Creek, and Paloma Creek historically supported steelhead; however, now the only CNDDB occurrence (#4) of steelhead in the Salinas River Watershed was recorded in Arroyo Seco and its tributaries. This occurrence is approximately 60 miles north of the study area and may be the only remaining remnants of steelhead in the Salinas River watershed (CNDDB 2022).

Table 5-5: Special-Status Wildlife Species in the Vicinity of the Study Area

Species Name	Habitat and Distribution	Legal Status Federal/State/ CDFW	Rationale for Expecting Presence or Absence
Critical Habitat - South-Central California Coast steelhead DPS *Oncorhynchus mykiss irideus* pop. 9	Critical habitat includes stream channels within designated stream reaches and includes lateral extent as defined by ordinary high-water line (33 CFR 329.11).	CH/--/--	**Present.** The Salinas River, Graves Creek, and Atascadero Creek are designated as critical habitat for South-Central California Coast steelhead DPS and falls within the Paso Robles Hydrologic Subarea 330981, which is part of the larger Salinas Hydrologic Unit 3309 (NOAA Fisheries 2005).
Invertebrates			
Obscure bumble bee *Bombus caliginosus*	Open grassy coastal prairies and Coast Range meadows. Nests underground and aboveground in abandoned bird nests.	--/--/SA	**Suitable Conditions Present.** The areas of lower-density oak savanna, annual grassland, mixed chaparral, and coastal sage scrub habitats in the study area provide suitable habitat conditions for this species.
Crotch bumble bee *Bombus crotchii*	Grassland and scrub habitats in California, Nevada, and Baja California. Feeds on milkweeds, dusty maidens, lupines, medics, phacelias, and sages.	--/-CE/SA	**Suitable Conditions Present.** The areas of lower-density oak savanna, annual grassland, mixed chaparral, and coastal sage scrub habitats in the study area provide suitable habitat conditions for this species. There are two historic (1959 and 1968) CNDDB occurrences (#79 and #80) mapped in the general vicinity of Atascadero. One is in the city center, and one is 3 miles southwest of Atascadero. Very little is known about this species, and it is likely present in the study area.
Sandy beach tiger beetle *Cicindela hirticollis gravida*	Areas adjacent to non-brackish water along the California coast to Mexico; inhabits sand in upper zone; larvae found in moist sand.	--/--/SA	**Suitable Conditions Absent.** The coastal habitat and soils necessary to support this species do not occur in the study area.

Table 5-5: Special-Status Wildlife Species in the Vicinity of the Study Area

Species Name	Habitat and Distribution	Legal Status Federal/State/ CDFW	Rationale for Expecting Presence or Absence
Globose Dune beetle *Coelus globosus*	Coastal sand dune habitat.	--/--/SA	**Suitable Conditions Absent.** The coastal sand dune habitat necessary to support this species does not occur in the study area.
Monarch butterfly *Danaus plexippus*	Along coast from northern Mendocino to Baja California, Mexico. Winter roosts in wind-protected tree groves (eucalyptus, Monterey pine and cypress), with nectar and water sources nearby.	FC/--/SA	**Suitable Conditions Present; Species Present, Winter Roosting Likely Absent.** The study area contains suitable tree groves and nectar sources to support adults and larval butterflies; however, it is outside of the coastal range for winter roost sites.
Morro Bay blue butterfly *Icaricia icarioides moroensis*	Stabilized dunes and adjacent areas of coastal San Luis Obispo and Santa Barbara Counties; (Lupinus chamissonis) is larval food plant.	--/--/SA	**Suitable Conditions Absent.** The coastal sand dune habitat necessary to support this species was not observed within the study area.
Atascadero June beetle *Polyphylla nubila*	Very little is known about this species. It is only known from sand dunes in San Luis Obispo County.	--/--/SA	**Suitable Conditions Present; Species Present.** Very little is known about the distribution of this species. There are two CNDDB occurrence records in the study area—one record is near the Salinas River (#4) from 1991 and one is a historic (1946) museum record with the general location of Atascadero (#2). Both occurrences were found near light sources.
Gastropods			
Morro shoulderband snail *Helminthoglypta walkeriana*	Restricted to coastal strand in Los Osos and immediate vicinity of Morro Bay; inhabits duff beneath *Salvia*, *Carpobrotus*, and *Ericameria*.	FT/--/--	**Suitable Conditions Absent; Species Absent.** The study area is located outside of the known range of the species.

Table 5-5: Special-Status Wildlife Species in the Vicinity of the Study Area

Species Name	Habitat and Distribution	Legal Status Federal/State/ CDFW	Rationale for Expecting Presence or Absence
San Luis Obispo pyrg *Pyrgulopsis taylori*	Freshwater habitats in San Luis Obispo County.	--/--/SA	**Suitable Conditions Present.** Suitable aquatic habitat could potentially occur in the study area. Very little is known about the habitat requirements and distribution of the species.
mimic tyronia (California brackishwater snail) *Tryonia imitator*	Aquatic habitats, including brackish marsh, estuary, lagoon, marsh and swamp, salt marsh, and wetland.	--/--/SA	**Suitable Conditions Absent.** The study area does not contain brackish marsh, estuary, or saltmarsh wetlands.
Amphibians			
California tiger salamander *Ambystoma californiense*	Vacant or mammal-occupied burrows and other underground retreats throughout most of year in grassland, savanna, or open woodland habitats. Requires shallow ephemeral or semi-permanent pools and ponds for breeding sites.	FT, CH/ST/WL	**Suitable Conditions Present; Species Absent.** Although the grassland, savanna, or open woodland habitats in the study area appear to provide suitable habitat for the species, the study area falls outside of the known range of the species. The closest known occurrences are along the southern edge of San Luis Obispo County.
Lesser slender salamander *Batrachoseps minor*	Small and thin salamander. Moist wooded areas; restricted to small range in Santa Lucia Mountains of San Luis Obispo County. All occurrences documented above 1,300 feet (400 meters) in mixed oak woodland, tanbark oak forest, sycamore woodland, and California bay forest (California Herps 2022).	--/--/SSC	**Suitable Conditions Present.** Only a small portion of the study area, along the western edge adjacent to Falcon Road, falls within the Santa Lucia Mountain range that may overlap the restricted range of this species. However, this area falls within an unincorporated portion and is not likely to be impacted.

Table 5-5: Special-Status Wildlife Species in the Vicinity of the Study Area

Species Name	Habitat and Distribution	Legal Status Federal/State/ CDFW	Rationale for Expecting Presence or Absence
Foothill yellow-legged frog south coast DPS *Rana boylii* pop. 6	Frequently occurs in rocky streams and rivers with open sunny banks. Occasionally found in pools, vegetated backwaters, and deep shaded spring fed pools. Sea level to 6,700 feet.	PE/SE/SSC	**Suitable Conditions Present; Species Absent.** An extirpated CNDDB occurrence (#41) was recorded south of the study area with a location reference of Santa Margarita. Expert opinion is that they were extirpated from this area around 1975 to 1978. The only known extant population in San Luis Obispo County is near the northern county line (CNDDB 2022).
California red-legged frog *Rana draytonii*	Aquatic habitats with little or no flow and surface water depths to at least 2.3 feet. Presence of fairly sturdy underwater supports such as cattails.	FT, CH/--/SSC	**Suitable Conditions Present; Species Present.** There is suitable habitat present in the study area and one CNDDB record (#1417) in the western portion of the study area in an artificially constructed pond in a private residence. There are additional records just west of that in Morro Creek, and two additional records at the very northern edge of the study area in Graves and Paso Robles Creeks. Their populations in the urban areas are likely limited if extant due to pressures from urbanization, decreased quality and invasion of nonnative species such as bullfrogs and crayfish. Critical habitat is mapped in the western edge of the study area.

Table 5-5: Special-Status Wildlife Species in the Vicinity of the Study Area

Species Name	Habitat and Distribution	Legal Status Federal/State/ CDFW	Rationale for Expecting Presence or Absence
Western spadefoot *Spea hammondii*	Vernal pools in primarily grassland, but also in valley and foothill hardwood woodlands.	--/--/SSC	**Suitable Conditions Present; Species Absent.** The study area does not support large vernal pool areas, but it does contain seasonal ponds that may provide suitable breeding habitat adjacent to suitable upland habitat. However, there are no known CNDDB occurrence records in the study area. The closest record is just south of the study area (#1326) within the Garden Farms community and the specific location is described as a natural pond on the Southern Pacific Milling Company land. There are also occurrences 2 miles east of the Salinas River (#301) and 2 miles north of the study area in Templeton (#366).
Coast Range newt *Taricha torosa*	Breeds in ponds, reservoirs, and slow-moving streams. Frequents terrestrial habitats such as oak woodlands.	--/--/SSC	**Suitable Conditions Present; Species Present.** Graves, Atascadero, and Paloma Creeks provide suitable aquatic habitat. There are three CNDDB occurrences in the study area. One in Graves Creek, just south of Santa Lucia bridge (#54) and two in a tributary to Grave Creek in Paradise Valley (#55 and #56). Habitat was described as high-quality riparian with patchy residential development and consisted of coast live oak, arroyo willow, poison oak, and nonnative annual grassland.

Table 5-5: Special-Status Wildlife Species in the Vicinity of the Study Area

Species Name	Habitat and Distribution	Legal Status Federal/State/ CDFW	Rationale for Expecting Presence or Absence
Reptiles			
Northern California legless lizard *Anniella pulchra*	Sandy or loose loamy soils with high moisture content under sparse vegetation.	--/--/SSC	**Suitable Conditions Present; Species Present.** There is one historic (1960) CNDDB occurrence generically mapped to the city center (#162) and one immediately north of the city center, east of US 101 (#66) found in sandy loam soil in mature coast live oak woodland habitat interspersed with residential landscape and single-family homes. In general, this species is most likely to occur in areas with loose loamy, sandy soils at lower elevations in the study area.

Table 5-5: Special-Status Wildlife Species in the Vicinity of the Study Area

Species Name	Habitat and Distribution	Legal Status Federal/State/ CDFW	Rationale for Expecting Presence or Absence
Western pond turtle *Emys marmorata*	Quiet waters of ponds, lakes, streams, and marshes. Typically in the deepest parts with an abundance of basking sites.	--/--/SSC	**Suitable Conditions Present; Species Present.** There is one CNDDB occurrence (#1156) in the urban area of Atascadero in Atascadero Creek on the north side of US 101 and El Camino Real. In addition, there are several CNDDB records immediately west of the study area in the Santa Lucia Mountain range in Morro, Toro, Old, and Santa Rita Creeks and immediately south of the study area in Trout, Santa Margarita, and Yerba Buena Creeks. Their populations in the study area are likely lower due to decreased habitat suitability from urban development. Populations are threatened by lack of suitable upland habitat due to urbanization, trash dumping, and the presence of invasive species, such as bullfrogs.
Coast horned lizard *Phrynosoma blainvillii*	Frequents wide variety of habitats, commonly occurring in lowlands along sandy washes, coastal sage scrub, and chaparral in arid and semi-arid climate conditions. Species prefers friable, rocky, or shallow sandy soils.	--/--/SSC	**Suitable Conditions Present; Species Absent.** There are no CNDDB occurrence records for the species within or adjacent to the study area. Overall, there is a gap in occurrences in the upper Salinas River watershed, with occurrences north of Paso Robles near Camp Roberts, west in Morro Bay, and east in Cholame Valley. Therefore, the probability of occurrence of this species in the study area is low, despite the presence of potentially suitable habitat areas, particularly in sparsely vegetated areas along the Salinas River.

Table 5-5: Special-Status Wildlife Species in the Vicinity of the Study Area

Species Name	Habitat and Distribution	Legal Status Federal/State/ CDFW	Rationale for Expecting Presence or Absence
Birds			
Cooper's hawk *Accipiter cooperii*	Deciduous riparian woodland habitat throughout California. Nests in deciduous, mixed-deciduous, and evergreen forests, as well as in suburban and urban environments. Tends to nest in more open areas that have older and larger trees.	MBTA/--/WL	**Suitable Conditions Present.** Despite the lack of CNDDB occurrences, the study area provides plenty of suitable habitat areas for this species, particularly in the abundant oak woodlands and annual grassland habitat that occur throughout the study area.
Tricolored blackbird *Agelaius tricolor*	(Nesting colony); open water, protected nesting substrate such as cattails or tall rushes, and foraging area with insect prey.	MBTA/ST/SSC	**Suitable Conditions Present; Species Absent.** While there is potentially suitable habitat in the tule marshes around Atascadero Lake and along the Salinas River, the level of urban development and recreational disturbance around Atascadero Lake makes establishment of a nesting colony unlikely. The closest CNDDB occurrences are located east in Creston around Franklin Lakes
Grasshopper sparrow *Ammodramus savannarum*	(Nesting) dense grasslands on rolling hills, lowland plains, in valleys, and on hillsides on lower mountain slopes; favors native grasslands with a mix of grasses, forbs, and scattered shrubs loosely colonial when nesting.	MBTA/--/SSC	**Suitable Conditions Present.** There is suitable grassland habitat in the study area. The closest CNDDB record (#11) is located immediately south of the study area adjacent to Santa Margarita.
Burrowing owl *Athene cunicularia*	Open, dry grasslands, deserts, and scrublands. Subterranean nester, dependent on burrowing mammals.	MBTA/--/SSC	**Suitable Conditions Present, Presence Unlikely.** There is suitable grassland habitat in the study area; however, the closest occurrence is near Camp San Luis Obispo and north on Camp Roberts.

Table 5-5: Special-Status Wildlife Species in the Vicinity of the Study Area

Species Name	Habitat and Distribution	Legal Status Federal/State/ CDFW	Rationale for Expecting Presence or Absence
Golden eagle *Aquila chrysaetos*	Usually in mountainous areas with varying vegetative cover; removed from people. May forage in grasslands and other open habitats. Nests on cliff edges and rarely in tall trees	MBTA/--/FP	**Suitable Conditions Present; Species Present.** Although unlikely to occur in the denser urban areas, there is an occurrence in the southern portion of the study area in the Santa Lucia Mountain range near Eagle Peak (#141).
Ferruginous hawk *Buteo regalis*	(Wintering) open grasslands, sagebrush flats, desert scrub, low foothills, and fringes of pinyon-juniper habitats; eats lagomorphs, ground squirrels, and mice.	MBTA/--/WL	**Suitable Conditions Present.** The study area contains suitable habitat (open grasslands). This species is a winter migrant and does not nest in the area.
Western snowy plover *Charadrius alexandrinus nivosus*	Sandy beaches, salt pond levees, and shores of large alkali lakes. Needs sandy, gravelly, or friable soils for nesting.	FT/--/SSC	**Suitable Conditions Absent.** The study area does not contain suitable habitat for this species and is not located on the coast.
Western yellow-billed cuckoo *Coccyzus americanus*	Forests to open riparian woodlands with thick under story.	FT, CH/SE/--	**Marginal Conditions Present.** The study area contains riparian woodlands but is outside the known extant range of this species.
White-tailed kite *Elanus leucurus*	Open grasslands, meadows, or marshlands for foraging close to isolated trees for nesting and perching.	MBTA/--/FP	**Suitable Conditions Present.** Despite the lack of CNDDB occurrences, the study area provides plenty of suitable habitat areas for this species, particularly in the annual grassland habitat that occurs throughout the study area.

Table 5-5: Special-Status Wildlife Species in the Vicinity of the Study Area

Species Name	Habitat and Distribution	Legal Status Federal/State/ CDFW	Rationale for Expecting Presence or Absence
Southwestern willow flycatcher *Empidonax traillii extimus*	Riparian woodlands of southern California. Breeds in relatively dense riparian tree and shrub communities associated with rivers, swamps, and other wetlands, including lakes and reservoirs. In most instances, dense vegetation occurs within first 10 to 13 feet aboveground. Habitat patches must be at least 0.25 acre in size and at least 30 feet wide.	FE, CH/SE/--	**Marginal Conditions Present; Species Absent.** The riparian habitat along the Salinas River provides potentially suitable habitat, but the study area is located outside of the known current range of this species.
California horned lark *Eremophila alpestris actia*	Short grass prairies, coastal plains, fallow grain fields, and alkali flats. Found in coastal regions from Sonoma to San Diego County, and west to the San Joaquin Valley.	MBTA/--/WL	**Suitable Conditions Present.** Despite the lack of CNDDB occurrences, the study area provides plenty of suitable habitat areas for this species, particularly in the annual grassland habitat that occurs throughout the study area.
Merlin *Falco columbarius*	(Wintering); nests in trees associated with open forests adjacent with open areas. Preys on small birds.	MBTA/--/WL	**Suitable Conditions Present.** Suitable habitat conditions are present, but the study area is not located within the nesting range of this species.
Prairie falcon *Falco mexicanus*	Dry, open terrain that is level or hilly and breeds on cliffs.	MBTA/--/WL	**Suitable Conditions Present.** This species was present in study area.
California condor *Gymnogyps californianus*	Open savannas, grasslands, and foothill chaparral, in mountain ranges with moderate altitudes. Nests in deep canyons on rock walls with clefts.	FE, CH/SE/FP	**Suitable Conditions Absent.** The BSA does not contain deep canyons on rock walls with clefts for nesting.

Table 5-5: Special-Status Wildlife Species in the Vicinity of the Study Area

Species Name	Habitat and Distribution	Legal Status Federal/State/ CDFW	Rationale for Expecting Presence or Absence
Bald eagle *Haliaeetus leucocephalus*	Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water.	FDL/SE/FP	**Suitable Conditions Present.** Suitable nesting conditions within the study area are absent; however, this species has been observed around Atascadero Lake (eBirds 2022; Morro Coast Audubon Society 2019).
Loggerhead shrike *Lanius ludovicianus*	Broadleaved upland forest, desert was, Joshua tree woodland, Mojavean desert scrub, pinyon and juniper woodlands, riparian woodland, and Sonoran desert scrub.	MBTA/--/SSC	**Suitable Conditions Present.** This species was present in the study area.
Purple martin *Progne subis*	Valley foothill and montane hardwood forests, conifer forests, and riparian habitats. May nest in old woodpecker cavities or in human-made structures such as bridges and culverts. Feeds on insects.	MBTA/--/SSC	**Suitable Conditions Present; Species Present.** Sycamores within the riparian corridors provide suitable nesting habitat, but nesting is more likely in the unincorporated areas and is less likely in areas surrounded by residential development. The CNDDB documents one occurrence along Atascadero Creek (#15) and one south of the study area at Santa Margarita Ranch (#26) in sycamore trees.
California ridgeway's (clapper) rail *Rallus longirostris obsoletus*	Pickleweed and cordgrass marshes. Nests in marshlands near tidal ponds, arranging plants or drift material over nest as canopy.	FE/SE/FP	**Suitable Conditions Absent.** The study area does not contain suitable marshlands near tidal ponds.

Table 5-5: Special-Status Wildlife Species in the Vicinity of the Study Area

Species Name	Habitat and Distribution	Legal Status Federal/State/ CDFW	Rationale for Expecting Presence or Absence
Yellow warbler *Setophaga petechia*	Riparian associations; prefers willows, cottonwoods, aspens, sycamores, and alders for nesting and foraging.	MBTA/--/SSC	**Marginal Conditions Present; Species likely Absent.** Potentially suitable habitat is limited to the riparian areas of the Salinas River. Nesting is unlikely, but it may be present as a transient migratory species.
Least Bell's vireo *Vireo bellii pusillus*	Summer resident of southern California. Low riparian areas in vicinity of water or in dry river bottoms below 2,000 feet. Nests along margins of bushes or twigs of willow, *Baccharis*, or mesquite.	FE, CH/SE/--	**Marginal Conditions Present.** There are two CNDDB occurrences (one historical [1946; #127] and one recent [2005; #323]) recorded in the Salinas River approximately north of the study area. Potentially suitable habitat is limited to the riparian areas of the Salinas River. Nesting is unlikely, but it may be present as a transient migratory species.
Class Aves Other migratory bird species (nesting)	Nonnative grassland, valley oak woodland, central coastal scrub, windrows, landscaping, water tanks, and structures may provide nesting habitat.	MBTA/--/--	**Suitable Conditions Present.** Multiple nesting bird species are present in the study area.
Mammals			
Pallid bat *Antrozous pallidus*	Prefers rocky outcrops, cliffs, and crevices with access to open habitats for foraging. Day roosts are in caves, crevices, mines, and occasionally in hollow trees and buildings. Night roosts may be in more open sites, such as porches and buildings.	--/--/SSC	**Suitable Conditions Present.** There are CNDDB occurrences recorded in and just outside of the study area. There are several structures and trees that may provide suitable roosting habitat for this species.

Table 5-5: Special-Status Wildlife Species in the Vicinity of the Study Area

Species Name	Habitat and Distribution	Legal Status Federal/State/ CDFW	Rationale for Expecting Presence or Absence
Townsend's big-eared bat *Corynorhinus townsendii*	Wide variety of habitats; most common in mesic (wet) sites. May use trees for day and night roosts; however, requires caves, mines, rock faces, bridges, or buildings for maternity roosts. Maternity roosts are in relatively warm sites.	--/--/SSC	**Suitable Conditions Present.** No CNDDB occurrences have been recorded in the immediate study area, but there is an occurrence just south of the study area. There are several structures that may provide suitable roosting habitat for this species.
Giant kangaroo rat *Dipodomys ingens*	Gently sloping and level piedmont plains and formerly areas supporting saltbrush and perennial grasses. Habitat dominated by introduced annuals, with many shrubs in some areas. Prefers areas of sparse vegetative cover and well-drained soils and slope generally less than 9%.	FE/SE/--	**Suitable Conditions Absent.** The study area is outside the current range of this species.
Western mastiff bat *Eumops perotis*	Found in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc.; roosts in crevices in cliff faces, high buildings, trees, and tunnels.	--/--/SSC	**Suitable Conditions Present.** No CNDDB occurrences have been recorded in the immediate study area; however, there are several structures and trees that may provide suitable roosting habitat for this species in the study area.
San Diego desert woodrat *Neotoma lepida intermedia*	Forest habitats of moderate canopy and moderate to dense understory; also in chaparral habitats. Requires rock outcrops and rocky cliff slopes Nests constructed of grass, feathers, etc. Population may be limited by availability of nest materials.	--/--/SSC	**Suitable Conditions Absent.** The study area is outside the current range of this species.

Table 5-5: Special-Status Wildlife Species in the Vicinity of the Study Area

Species Name	Habitat and Distribution	Legal Status Federal/State/ CDFW	Rationale for Expecting Presence or Absence
Monterey dusky-footed woodrat *Neotoma macrotis luciana*	Occurs in coastal central California in habitats that exhibit moderate vegetative canopy, with brushy understory. Builds nests of sticks and leaves at base of, or within, tree or shrub, or at base of hill. Primarily feeds on woody plants, but also eats fungi, flowers, grasses, and acorns.	--/--/SSC	**Suitable Conditions Present.** The study area supports suitable vegetation conditions to support populations of this species.
Big free-tailed bat *Nyctinomops macrotis*	Rare vagrant in California, probable resident in Texas, New Mexico, and southern Arizona. Probably does not breed in California. Prefers rugged, rocky canyons but will roost on buildings or in caves and trees.	--/--/SSC	**Suitable Conditions Absent.** The study area is outside the current range of this species.
Salinas pocket mouse *Perognathus inornatus psammophilus*	Annual grassland and desert shrub communities in Salinas Valley.	--/--/SSC	**Suitable Conditions Absent.** The study area is outside the current range of this species.
American badger *Taxidea taxus*	Open stages of shrub, forest, and herbaceous habitats; needs uncultivated ground with friable soils.	--/--/SSC	**Suitable Conditions Present.** The study area supports suitable soil and vegetation conditions to support populations of this species.
San Joaquin kit fox *Vulpes macrotis mutica*	Annual grasslands or grassy open stages with scattered shrubby vegetation; needs loose-textured sandy soils for burrowing and suitable prey base.	FE/ST/--	**Suitable Conditions Absent.** The study area is outside the current range of this species.

Table 5-5: Special-Status Wildlife Species in the Vicinity of the Study Area

Species Name	Habitat and Distribution	Legal Status Federal/State/ CDFW	Rationale for Expecting Presence or Absence

General references: Unless otherwise noted all habitat and distribution data provided by California Natural Diversity Database
Status Codes
--= No status
Federal: FE = Federal Endangered; FT= Federal Threatened; FC= Federal Candidate; FDL=Federal Delisted; PE = Proposed Endangered; CH = Federal Critical Habitat; MBTA= Protected by Federal Migratory Bird Treaty Act
State: SE= State Endangered; ST= State Threatened
California Department of Fish and Wildlife: SSC= California Special Concern Species; FP= Fully Protected Species; WL = CDFW Watch List species; SA= Not formally listed but included in CDFW "Special Animal" List (CNDDB 2022; CDFW 2022d).

5.6 Critical Habitat

South-Central California Coast Steelhead Critical Habitat

The South-Central California Coast steelhead DPS is Federally listed as threatened and is listed as an SSC by the CDFW (CDFW 2022d). Critical habitat was designated for the species on September 5, 2005 (NOAA Fisheries 2005). There are no CNDDB occurrences of South-Central California Coast steelhead in the Salinas River Watershed south of Arroyo Seco and its tributaries (CNDDB occurrence #4), but several of the creeks in the study area historically supported populations of steelhead.

Historically (prior to the 1950s), Graves Creek supported an abundant population of steelhead (US-LTRCD 2002). There are historic accounts that steelhead runs would start in January and end in March and, depending on the rains, could bring steelhead upstream through May (US-LTRCD 2002). Currently Graves Creek, Atascadero Creek, and the Salinas River are designated as Critical Habitat for South-Central California Coast steelhead DPS. These creeks fall within the Paso Robles Hydrologic Subarea 330981, which is part of the larger Salinas Hydrologic Unit 3309 (NOAA Fisheries 2005).

Anthropogenic threats to steelhead in the Salinas River watershed were broken down into four general threat categories: 1) barriers to upstream and downstream migration (roads, dams, groundwater extraction, and sand and gravel mining); 2) agricultural conversion of floodplain habitats; 3) recreational facilities and activities, and 4) water management activities, including dam operations, diversions, and groundwater extractions (NOAA Fisheries 2013). All four waterways in the study area contain identified barriers to fish passage as mapped by FishPAD (CDFW 2022c); however, Atascadero Creek contains the highest number with 10 barriers. These barriers range from only partial barriers to total barriers.

California Red-legged Frog Critical Habitat

The study area contains a small portion, approximately 3,072 acres, of Critical Habitat Unit SLO-3 for California red-legged frog. Critical habitat areas include the upper watershed areas of Morro and Atascadero Creeks (**Figure 5-6**). The small portion of Santa Margarita Creek watershed that falls in the study area and a small corner of the Paloma Creek watershed but does not include Paloma Creek itself. The key threats to the physical and biological features essential to the conservation of California red-legged frog in Unit SLO-3 include predation by nonnative species, water diversion, overgrazing, and urbanization (USFWS 2010). These activities may alter aquatic or upland habitats and thereby result in the direct or indirect loss of egg masses or adults due to habitat modification (USFWS 2010).

5.7 Oak Woodland Resources

The study area contains a diversity of oak woodlands, including Blue Oak Woodlands, Coast Live Oak Woodlands, Valley Oak Woodlands, and Blue-Oak Foothill Pine (**Figure 5-7**). There are approximately 10,822 acres of oak woodlands mapped in the study area by the CAL FIRE FRAP vegetation database [ds1327] (CAL FIRE 2020). Oak woodlands provide important wildlife habitat and are an integral part of the aesthetic appeal for living in the City of Atascadero. **Table 5-6** provides a breakdown of the distribution of the different oak woodland types by current land use designations.

Table 5-6: Distribution of Oak Woodland Habitat by Current Land Use Designation

Land Use	Blue Oak Woodland	Blue Oak-Foothill Pine	Coast Live Oak Woodland	Valley Oak Woodland
Agriculture		29	8	
Commercial Park	6	8	2	
Commercial Recreation	0			
Downtown			4	
General Commercial	11	37	5	
High Density Residential (16 units / acre)	7	62	34	
Industrial	1		1	
Medium Density Residential (10 units / acre)	1	25	70	
Mixed Use		4	0	
Open Space	37	181	103	6
Public Facilities	12	130	41	
Public Recreation	21	26	65	3
Right-of-Way	8	12	9	
Rural Estates (2.5 – 10 acre lot min)	810	1,407	2,749	383
Rural Residential	17	4	44	
Single-Family Residential (0.5 acre lot min)	26	94	95	
Single-Family Residential (1.0 acre lot min)	173	381	397	
Single-Family Residential (1.5 – 2.5 acre lot min)	15	389	65	
Suburban Estates (2.5 – 10 acre lot min)	161	106	103	
Unincorporated	448	75	629	379

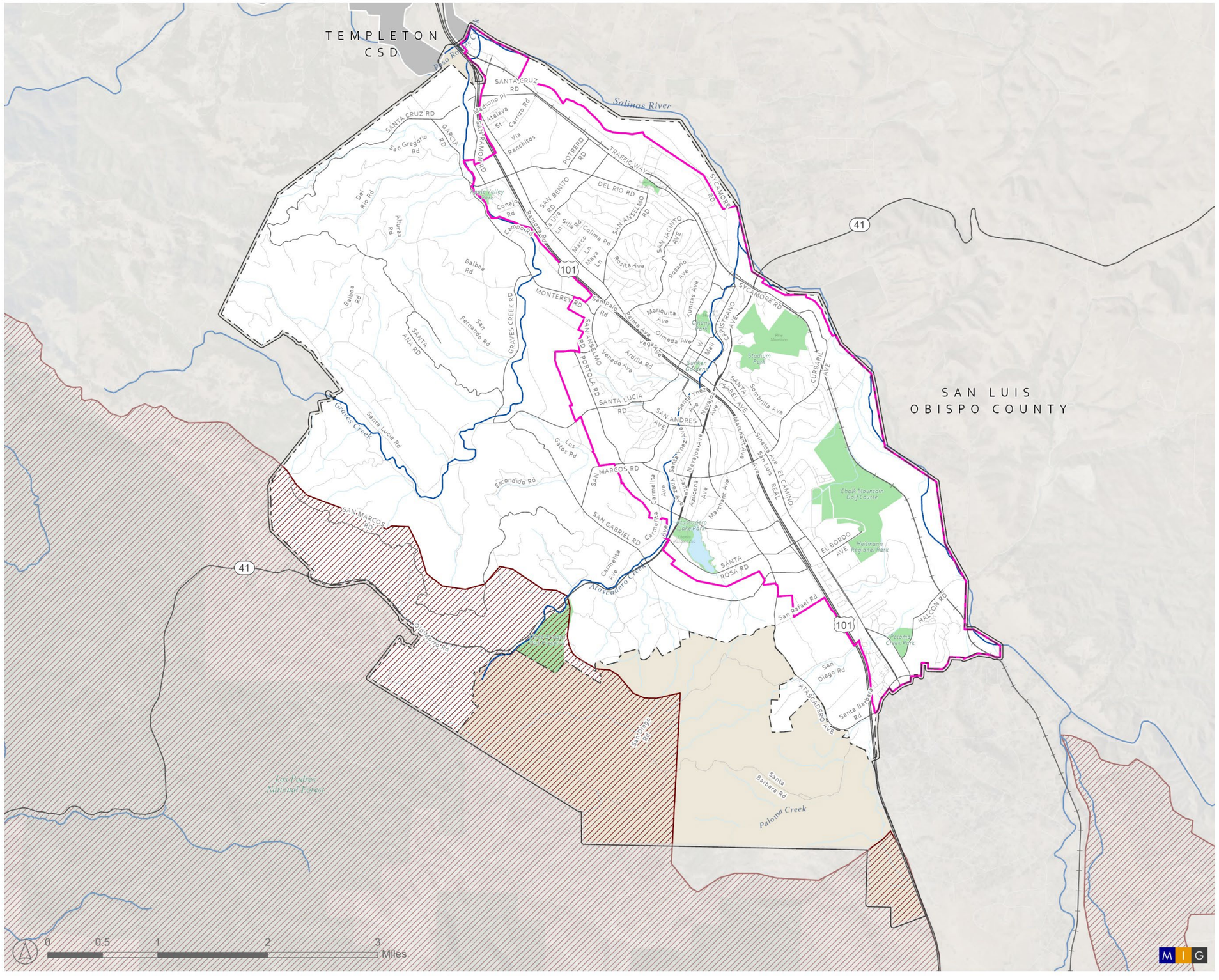

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Figure 5-6
Critical Habitat

Basemap Features

- Atascadero City Limits
- Atascadero Planning Area
- Atascadero Sphere of Influence
- Urban Services Line
- Parks + Open Space
- Rivers + Waterbodies
- Major Roads + Freeways

Critical Habitat

- Steelhead
- California red-legged frog

Source(s):
Esri, CA State Open Data, County of San Luis Obispo, City of Atascadero 2023.

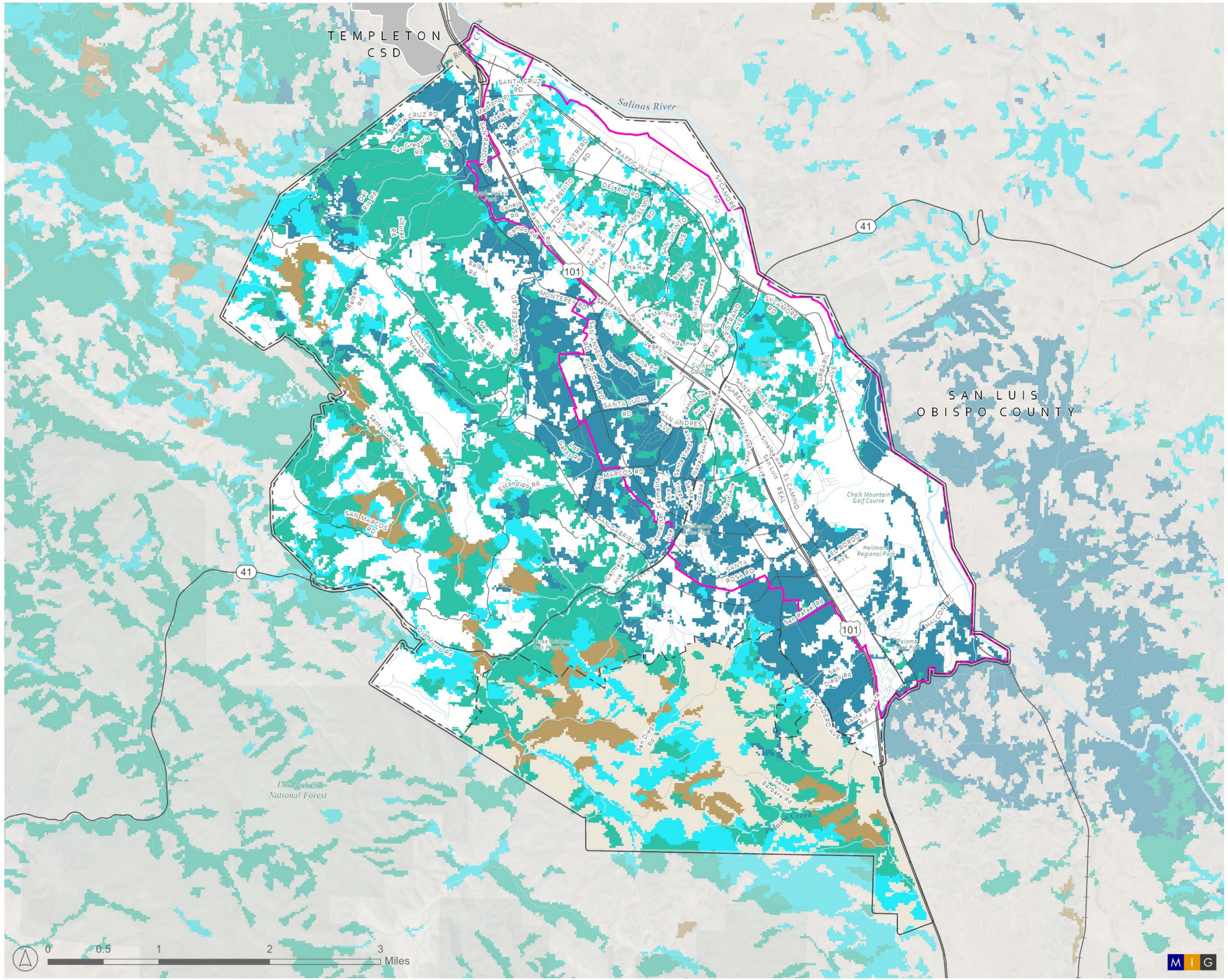

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Figure 5-7
California Vegetation - Oak Woodlands

Basemap Features

- Atascadero City Limits
- Atascadero Planning Area
- Atascadero Sphere of Influence
- Urban Services Line
- Rivers + Waterbodies
- Major Roads + Freeways

Oak Woodlands Habitat

- Blue Oak Woodland
- Blue Oak-Foothill Pine
- Coastal Oak Woodland
- Valley Oak Woodland

Source(s):
Esri, CA State Open Data, County of San Luis Obispo, City of Atascadero 2023.

5.8 Minerals

The California Surface Mining and Reclamation Act (SMARA) of 1975 requires that the State Geologist classify land into mineral resource zones (MRZs) according to the known or inferred mineral potential of the land (California Public Resources Code Sections 2710–2796).

The study area is in the San Luis Obispo-Santa Barbara Production-Consumption Region. According to Special Report 215 (SR 215): *Update of Mineral Land Classification: Concrete Aggregate in the San Luis Obispo-Santa Barbara Production-Consumption Region, California*, the three MRZs used in the SMARA classification-designation process in the San Luis Obispo-Santa Barbara Production-Consumption Region are defined below (California Geological Survey [CGS] 2011a):

- **MRZ-1:** Areas where available geologic information indicates that little likelihood exists for the presence of significant mineral resources.
- **MRZ-2:** Areas where adequate information indicate that significant mineral deposits are present, or where it is judged that a high likelihood for their presence exists. This zone shall be applied to known mineral deposits or where well-developed lines of reasoning, based upon economic-geologic principles and adequate data, demonstrate that the likelihood for occurrence of significant mineral deposits is high.
- **MRZ-3:** Areas containing known or inferred aggregate resources of undetermined significance.

Three aggregate-grade subdivisions were used in classifying lands as MRZ-2, including Portland cement concrete (PCC) grade, asphalt concrete (AC) grade, and base and fill. In classifying lands as MRZ-1 and MRZ-3, only PCC-grade criteria were considered.

According to the CGS *Updated Mineral Land Classification Map for Concrete-Grade Aggregates in the San Luis Obispo-Santa Barbara Production-Consumption Region, California*, all three MRZ zones exist within the City of Atascadero. A majority of the city is classified as an MRZ-3 zone. There is an MRZ-2 (PCC) zone surrounding the Salinas River, along the eastern city limit. There are several MRZ-1 zones located along the southwestern city limit and within the central and eastern portions of the city (CGS 2011b).

Concrete-Grade Aggregate Resource Sectors in the San Luis Obispo-Santa Barbara P-C Region

Sectors are described as areas that have been classified as MRZ-2 by the State Geologist, and that have current land uses deemed compatible with potential mining based on criteria provided by the California State Mining and Geology Board. SR 215 identifies five sectors in the P-C Region, including Sectors A, B, C, D, and E, which are also divided into 56 subsectors. The project site falls within subsectors A-2a, A-2b, and A-3 of Sector A. Sector A consists of deposits in the recent river channel and adjacent floodplain along about 14 miles of the Salinas River, from the southeastern city limits of Atascadero to the Niblick Road Bridge in the City of Paso Robles. Sector A has been subdivided into five subsectors identified as A-1a, A-1b, A-2a, A-2b, and A-3. The combined area of the five subsectors is 1,687 acres; estimated resources are 48 million tons of PCC-grade aggregate (CGS 2011a).

Mines in the San Luis Obispo-Santa Barbara P-C Region

There are several mines in the San Luis Obispo-Santa Barbara P-C Region. According to the California Department of Conservation (CDOC) Mines Online database, the Millhollin Pit (Mine ID 91-40-0001) is located within the southwestern portion of the city but has been permanently closed and reclaimed (CDOC 2016). While active, the Millhollin Pit consisted of an open pit operation that primarily produced rock. In addition, the Sycamore Road Pit (Mine ID 91-40-0042) is located adjacent to the western city limit and the Rocky Canyon Quarry (Mine ID 91-40-003) is located approximately 5 miles southeast of the city and primarily produces decomposed granite (CDOC 2016).

5.9 Groundwater Basin(s)

The following section is based on the *Atascadero Basin Groundwater Sustainability Plan* (GSP; (Atascadero Basin Groundwater Sustainability Agency [ABGSA] 2022), which was adopted on January 19, 2022.

Basin Setting

The Atascadero Area Groundwater Subbasin (Basin) is identified by California Department of Water Resources (DWR) in Bulletin 118 as Subbasin No. 3-004.11 and is part of the greater Salinas Valley Basin in the Central Coast region of California. It was discovered that the Rinconada Fault was acting as a significant barrier to groundwater flow. As a result, in 2016, the Basin was subdivided from the Paso Robles Area Subbasin. Currently, the Basin encompasses a narrow structural area of approximately 19,735 acres, extending northwest from the community of Santa Margarita at its southern end to the City of Paso Robles at its northern end. The Basin is bounded by the Santa Lucia Range on the west. The following includes the specific lateral boundaries of the Basin:

The northwestern, western, and southern boundaries of the Basin are defined by the contact of Basin sediments with older, relatively impermeable geologic units, including Tertiary-age consolidated sedimentary beds, Cretaceous-age metamorphic rocks, and granitic rock.
Along the northern portion of the eastern boundary, north of Templeton, the Rinconada Fault defines the eastern boundary of the Basin and is assumed to form a leaky hydraulic barrier between the Paso Robles Basin and the Basin.
Along the southern portion of the eastern boundary, south of Templeton and between Atascadero and Creston, the Rinconada Fault lies along the Monterey Formation rocks and other bedrock units with the Paso Robles Formation basin sediments.

The basin is comprised of flatlands ranging in elevation from approximately 700 to 1,400 feet above mean sea level. The average annual precipitation ranges from 13 to 23 inches. The Salinas River is the primary surface water feature within the basin. The Salinas River is an ephemeral waterbody that loses water to the shallow aquifer during most of the year.

The Paso Robles Formation is the primary water-bearing sediment in the Basin. The other major aquifer unit of the Basin is the Quaternary Alluvium, which overlays the Paso Robles Formation.

Alluvium consists of alluvial (river- or stream-related) deposits that occur beneath the floodplains of the rivers and streams within the Basin. These deposits reach a depth of approximately 100 feet or less below ground surface and are typically comprised of coarse sand and gravel. Alluvium is generally much coarser than the Paso Robles Formation

sediments, with higher permeability that results in well production capability that often exceeds 1,000 gallons per minute. One of the principal areas of groundwater recharge to the Basin occurs where the shallow alluvial sand and gravel beds are in direct contact with the Paso Robles Formation.

The Basin is primarily comprised of sedimentary layers of the Paso Robles Formation that extend from the ground surface, or the base of Alluvium, to approximately 700 to 800 feet thick in some areas of the Basin. The formation is unconsolidated and generally poorly sorted. It is not usually intensely deformed, except locally near fault zones. The sand and gravel beds within the unit have a high percentage of Monterey shale gravel fragments and generally have moderately lower permeability compared to the shallow, unconsolidated alluvial sand and gravel beds. Typically, the formation is thick enough for water wells to produce several hundred gallons per minute. In the area near Atascadero, the Paso Robles Formation has been folded, exposing the basal gravel beds. With the basal gravel exposed and in direct contact with the Alluvium, the Paso Robles Formation is recharged directly from the Alluvium.

Numerous deposits of Older Alluvium are located throughout the Basin. These deposits are terraces of dissected older alluvial sands and gravels. They are unsaturated and, therefore, are not considered a principal aquifer unit within the Basin.

Land Uses within the Basin

The Basin includes the incorporated cities of Paso Robles and Atascadero, as well as the unincorporated census-designated places of Santa Margarita and Templeton. Land use categories within the Basin generally include approximately 4,106 acres of agricultural land, 2,592 acres of urban uses, and 13,192 acres of native vegetation. The primary groundwater users in the Basin include municipal, agricultural, rural residential, small community water systems, and small commercial entities.

Water Budgets and Groundwater Conditions

As a part of the Atascadero Basin GSP, historical, current, and future water budgets were developed using the following computer models of the Basin's hydrogeologic conditions: a watershed model, a soil water balance model, and a groundwater flow model. The following includes a summary of the results of modelling:

Over a historical base period of 31 years (1981–2011), a net gain of groundwater storage of approximately 42,300 acre-feet occurred. During this time, the average annual groundwater storage gain was approximately 1,400 acre-feet per year (AFY).
Over the previous 5-year water budget period (2012–2016), the annual average groundwater storage loss, or the difference between outflow and inflow to the Basin, was approximately 2,500 AFY. This reduction reflects the drought conditions that prevailed during the current water budget period.
The projected future groundwater budget period (2020–2042) shows the Basin to be generally in balance, with projected groundwater inflows of approximately 18,000 AFY and projected groundwater outflows of about 17,200 AFY. The projected future surplus indicates an average annual increase in groundwater in storage of 800 AFY.

In general, the groundwater quality in the basin is good and water quality trends are dominantly stable.

5.10 Wildfires

A wildfire is an uncontrolled spread of fire through vegetative fuels that poses danger and destruction to property. Wildfires often start in undeveloped and public land areas, such as national and State forest lands, but can spread to urban areas where development is more concentrated. The predominant dangers from wildfires include injury or loss of life to people in the affected area and destruction of vegetation, property, and wildlife. According to the San Luis Obispo County Multi-Jurisdictional Hazard Mitigation Plan, the city is at an increased risk of wildfire occurrence (**Figure 5-8**) (County of San Luis Obispo 2019). Wildfire and urban fire hazards are closely related in Atascadero due to extensive residential development in hillside areas with flammable chaparral, grassland, and oak woodland unpredictably (City of Atascadero 2016).

Wildfire Influences within the Study Area

Generally, the three major factors that increase wildfire risk in a given area include fuel, topography, and weather.

Fuel is the material that feeds a fire and is a key factor in wildfire behavior. Fuel sources are diverse and generally include dead tree leaves, twigs, and branches to dead standing trees, live trees, brush, and cured grasses. Additionally, fuel sources can be manmade structures, such as homes and other associated combustibles. Chaparral vegetation burns intensely at extremely high temperatures, making areas of the city containing this habitat susceptible to wildfires that are difficult to extinguish.

Topography influences wildfire spread in that both fire intensity and rate of spread increase as slopes increase due to the tendency of heat from a fire to rise. The arrangement and types of vegetation throughout a hillside can also contribute to increased fire activity on slopes. Within the city, the steepness of slopes generally increases with distance from the Salinas River (City of Atascadero 2016).

Weather components such as temperature, relative humidity, wind, and lightning also affect the potential for wildfire. High temperatures and low relative humidity dry out fuels that feed wildfires, creating a situation where fuel will more readily ignite and burn more intensely. Thus, periods of drought increase the threat of wildfire. Wind is the most influential weather factor of the three and its influence can increase rates of spread regardless of temperature and relative humidity. Maximum average summer (May–September) temperatures range between 86°F to 92°F, but there are often multiple days with temperatures reaching over 100°F. Minimum average summer temperatures range between 49°F to 52°F, and maximum average winter (October–April) temperatures range between 61°F to 80°F, with minimum average winter temperatures ranging between 32°F and 41°F. The average annual wind speeds in the city range from 4.5 miles per hour (mph) to 5.9 mph. The windiest months are March and April, and the calmest months are August and September (Weather Atlas 2022). Northwest afternoon winds are common in the western portion of the city due to inland valley heating and cool air currents flowing from the ocean. These winds can cause fires to spread and shift direction quickly and unpredictably (City of Atascadero 2016).

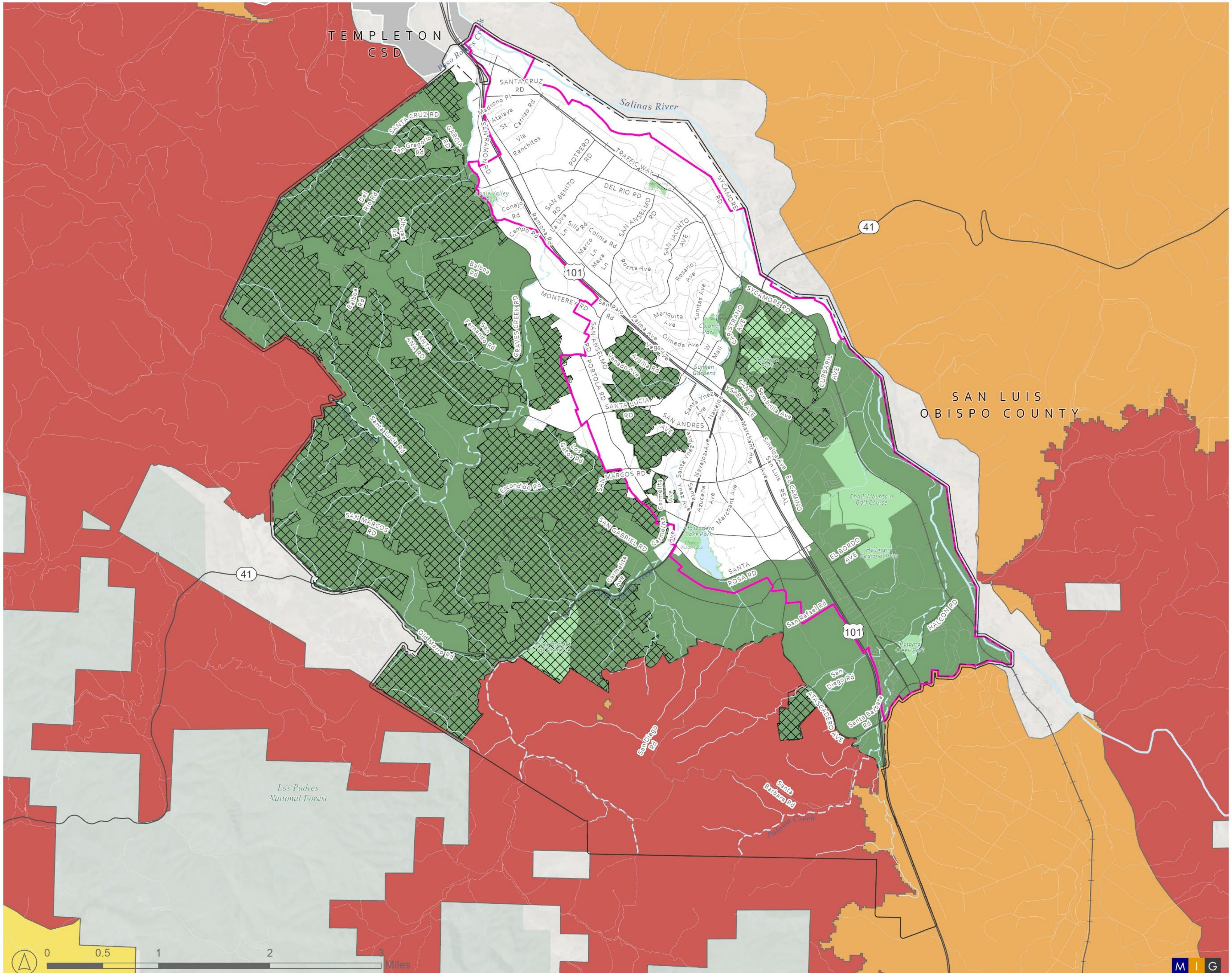

Figure 5-8
Areas Prone to Wildfire

Basemap Features

- Atascadero City Limits
- Atascadero Planning Area
- Urban Services Line
- Parks + Open Space
- Rivers + Waterbodies
- Major Roads + Freeways

SLO Local Responsibility Area

Wildland Urban Interface (WUI)

- Wildland

Fire Hazard Severity Zone (SRA & LRA)

- Very High
- High
- Moderate

Source(s):
Esri, CA State Open Data, County of San Luis Obispo, City of Atascadero 2023.

Fire Hazard Severity Zones within the Study Area

CAL FIRE defines fire hazard severity zones (FHSZs) based on the presence of fire-prone vegetation, climate, topography, assets at risk (e.g., high population centers), and a fire protection agency's ability to provide service to the area. FHSZs throughout the region have been designated as "Very High," "High," or "Moderate." Within the region, most of the area that has been designated as a "Very High Fire Hazard Severity Zone" is in the Santa Lucia Mountains, which extend parallel to the coast along the entire length of San Luis Obispo County, from Monterey County in the north to Santa Barbara County in the south. According to the CAL FIRE FHSZ viewer (CAL FIRE 2022), the majority of land within the City of Atascadero is considered a Very High FHSZ in a local responsibility area (LRA). Areas immediately surrounding the city are primarily designated as a High FHSZ within a State responsibility area (SRA) to the east, northeast, and southeast and a Very High FHSZ within an SRA to the west, northwest, and southwest (CAL FIRE 2022).

The Wildland Urban Interface (WUI) designation is a City designation that includes a combination of the High and Very High FHSZs within the city limits and provides for a more cohesive boundary than the CAL FIRE FHSZ mapping for purposes of policy implementation.

5.11 Major Pollutants

Waterbody Pollutants within the Study Area

There are four major watersheds located within the city, including Graves Creek watershed, Atascadero Creek watershed, Salinas River Watershed, and the Paloma Creek watershed. Atascadero Creek is listed on the Central Coast RWQCB Section 303(d) List of Impaired Waters for dissolved oxygen and pathogens (e.g., fecal coliform, *E. coli*) and Salinas River is listed on the 303(d) List of Impaired Waters for turbidity (RWQCB 2018). The groundwater quality in the basin is good and water quality trends are dominantly stable (ABGSA 2022).

The Central Coast RWQCB established the following summarized water quality objectives in the *Water Quality Control Plan for the Central Coast Basin* (Basin Plan) for all inland surface waters within the basin to protect the identified beneficial uses listed above (RWQCB 2019):

- **Color:** Waters shall be free of coloration that causes nuisance or adversely affects beneficial uses. Coloration attributable to materials of waste origin shall not be greater than 15 units or 10% above natural background color, whichever is greater.
- **Tastes and Odors:** Waters shall not contain taste or odor-producing substances in concentrations that impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin, that cause nuisance, or that adversely affect beneficial uses.
- **Floating Material:** Waters shall not contain floating material, including solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect beneficial uses.
- **Suspended Material:** Waters shall not contain suspended material in concentrations that cause nuisance or adversely affect beneficial uses.
- **Settleable Material:** Waters shall not contain settleable material in concentrations that result in deposition of material that causes nuisance or adversely affects beneficial uses.
- **Oil and Grease:** Waters shall not contain oils, greases, waxes, or other similar materials in concentrations that result in a visible film or coating on the surface of the water or

on objects in the water, that cause nuisance, or that otherwise adversely affect beneficial uses.

- **Biostimulatory Substances:** Waters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.
- **Sediment:** The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses.
- **Turbidity:** Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses.
- **pH:** For waters not mentioned by a specific beneficial use, the pH value shall not be depressed below 7.0 or raised above 8.5.
- **Dissolved Oxygen:** For waters not mentioned by a specific beneficial use, dissolved oxygen concentration shall not be reduced below 5.0 milligrams per liter at any time. Median values should not fall below 85% saturation as a result of controllable water quality conditions.
- **Temperature:** Temperature objectives for Enclosed Bays and Estuaries are as specified in the *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California*, including any revisions thereto.
- **Toxicity:** All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life.
- **Pesticides:** No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. There shall be no increase in pesticide concentrations found in bottom sediments or aquatic life.
- **Chemical Constituents:** Where wastewater effluents are returned to land for irrigation uses, regulatory controls shall be consistent with Title 22 of the CCR and other relevant local controls.
- **Other Organics:** Waters shall not contain organic substances in concentrations greater than standards established in the Basin Plan.
- **Radioactivity:** Radionuclides shall not be present in concentrations that are deleterious to human, plant, animal, or aquatic life; or result in the accumulation of radionuclides in the food web to an extent which presents a hazard to human, plant, animal, or aquatic life.

The following summarized objectives from the Basin Plan apply to all groundwater resources located in the basin (RWQCB 2019):

- **Tastes and Odors:** Groundwaters shall not contain taste or odor producing substances in concentrations that adversely affect beneficial uses.
- **Radioactivity:** Radionuclides shall not be present in concentrations that are deleterious to human, plant, animal, or aquatic life; or result in the accumulation of radionuclides in the food web to an extent which presents a hazard to human, plant, animal, or aquatic life.

Hazards and Hazardous Materials within the Study Area

The Hazardous Waste and Substances Site (Cortese) List is a planning tool used by the State, local agencies, and developers to comply with CEQA requirements related to the disclosure

of information about the location of hazardous materials release sites. California Government Code Section 65962.5 requires the California Environmental Protection Agency (CalEPA) to develop at least annually an updated Cortese List. Various State and local government agencies are required to track and document hazardous material release information for the Cortese List. The California Department of Toxic Substance Control (DTSC) EnviroStor database tracks DTSC cleanup, permitting, enforcement, and investigation efforts at hazardous waste facilities and sites with known contamination, such as Federal superfund, State response, voluntary cleanup, school cleanup, school investigation, and military evaluation sites (DTSC 2022). The SWRCB GeoTracker database contains records for sites that impact, or have the potential to impact, water in California, such as Leaking Underground Storage Tank (LUST) sites, Department of Defense sites, and Cleanup Program Sites (SWRCB 2022). Based on a query of the DTSC EnviroStor and SWRCB GeoTracker databases, there are no open hazardous materials sites located within the city; however, there are 34 closed LUST cleanup sites, two closed school investigation sites, and one closed school cleanup site within the city (DTSC 2022; SWRCB 2022).

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5.13 Acronyms and Key Terms

°F: Degrees Fahrenheit

ABGSA: Atascadero Basin Groundwater Sustainability Agency

AC: Asphalt Concrete

AFY: Acre-Feet Per Year

Basin: Atascadero Area Groundwater Subbasin

BIOS: Biological Spatial Data Server

CAL FIRE: California Department of Forestry Fire Protection

CalEPA: California Environmental Protection Agency

CCR: California Code of Regulations

CDFW: California Department of Fish and Wildlife

CDO: California Department of Conservation

CEQA: California Environmental Quality Act

CESA: California Endangered Species Act

CFGC: California Fish and Game Code

CFR: Code of Federal Regulations

City: City of Atascadero (entity)

CNDDB: California Natural Diversity Database

CNPS: California Native Plant Society

CRPR: California Rare Plant Rank

CWA: Federal Clean Water Act

CWHR: California Wildlife Habitat Relationships

DBH: Diameter at Breast Height

DPS: Distinct Population Segment

DTSC: California Department of Toxic Substance Control

DWR: California Department of Water Resources

FESA: Federal Endangered Species Act

FHSZ: Fire Hazard Severity Zone

FRAP: Fire and Resource Assessment Program

GIS: Geographic Information System

GSP: Groundwater Sustainability Plan

HUC: Hydrologic Unit Code

IPaC: Information for Planning and Consultation

LRA: Local Responsibility Area

LUST: Leaking Underground Storage Tank

MBTA: Migratory Bird Treaty Act

Mph: Miles Per Hour

MRZ: Mineral Resource Zone

NHD: National Hydrography Dataset

NLCD: National Land Cover Database

NOAA Fisheries: National Oceanic and Atmospheric Administration

National Marine Fisheries Service

NPPA: Native Plant Protection Act

NRCS: Natural Resources Conservation Service

NWI: National Wetland Inventory

PCC: Portland cement concrete

Porter-Cologne Act: Porter-Cologne Water Quality Control Act

RWQCB: Regional Water Quality Control Board

SAA: Streambed Alteration Agreement

SR: State Route

SRA: State Responsibility Area

SWRCB: State Water Resources Control Board

US: U.S. Route

USACE: U.S. Army Corps of Engineers

USDA: U.S. Department of Agriculture

USFWS: U.S. Fish and Wildlife Service

USGS: U.S. Geological Survey

US-LTRCD: Upper Salinas-Las Tablas Resource Conservation District

WDR: Waste Discharge Requirement

WOTS: Waters of the State

WOTUS: Waters of the United States