

Septic to Sewer Conceptual Design Report

To:	Michael Simkins, Board President, Cabrillo Estates Property Owners Association		
Prepared By:	Nick Panofsky, PE MNS Engineers	Checked By:	Tyler Hunt, PE MNS Engineers
Date:	April 18, 2025		
Project	Cabrillo Estates Property Owners Association (CEPOA), Los Osos, County of San Luis Obispo Septic to Sewer Conceptual Design Report and Implementation Cost Opinion		

1. Introduction

The Cabrillo Estates Property Owners Association (CEPOA) retained MNS Engineers, Inc (MNS) to prepare a Conceptual Design Report and Implementation Cost Opinion (Report) of a potentially feasible, long-term wastewater solution to connect the existing septic systems within the Cabrillo Estates area (Project) to the County of San Luis Obispo's (County) Los Osos wastewater collection and treatment system. The objective of this document is to document a potentially feasible preliminary design and implementation cost opinion.

2. Background

Cabrillo Estates is located in the community of Los Osos, California. Tract 306, which includes Travis Drive, Crockett Circle, Austin Circle, Houston Drive, and Rodman Drive, was developed into residential housing in 1964. The section of Travis Drive on Lot 310, along with Crockett Circle and the end of Alamo Drive, was added in 1967. In 1970, homes were constructed along Rodman Drive near its terminus, as well as on Bowie Drive and San Lucino Drive in Lot 307. Finally, in 1989, houses were built on Lot 1342 near the intersection of Rodman Drive and Pacho Valley Road. This development included Madera Street, San Ricardo Lane, San Dominico Avenue, San Sebastian Lane, and San Leandro Court.

The properties within the Cabrillo Estates area currently rely on septic systems for treatment and disposal of domestic wastewater. Over many years, high concentrations of septic systems can cause or contribute to groundwater quality issues, specifically nitrate contamination and other emerging contaminants. Improperly maintained or failing septic systems can further contribute to water quality issues. The Los Osos area has documented groundwater quality issues, with area wells exceeding primary, health-based drinking water standards for nitrates. It is likely that septic systems in the area are contributing to nitrate concentrations in the area's groundwater. Based on the age of the developments within Cabrillo Estates, many of the original septic system have likely reached the end of their useful lives, and some systems may have already been replaced or repaired.

The nearest known centralized wastewater collection system to the Cabrillo Estates area is the Los Osos Water Recycling Facility, with wastewater collection services provided by the County. MNS has developed a preliminary design and cost opinion to implement a plan to extend the existing Los Osos Wastewater Collection System to serve the Cabrillo Estates area. This report includes the development of a conceptual design (10% level project definition) for the Project and associated total Project implementation cost including construction cost as well as engineering, construction management, permitting, environmental and regulatory compliance, and other administrative costs.

The Project will include new gravity sewer mains throughout the Cabrillo Estates community, conveying wastewater from existing residences to the terminus of the existing County collection system located on Pecho Valley Road, north of the intersection of Pecho Valley Road and Rodman Drive. Once constructed, the wastewater mains would become owned and operated by the County. The new public infrastructure would be required to conform to County standards.

Modifications to existing private wastewater systems will be required to redirect wastewater from existing septic systems to the new conveyance systems. These modifications on private property will include some combination of extension of wastewater piping, internal rerouting of piping to bring piping to the other side of residences, or, due to the topography of the area, some residences may be required to install pumped systems consisting of a small grinder lift station and small diameter pressure piping. Improvements on private properties will need to comply with California plumbing and County building codes.

By transitioning from individual wastewater systems to the County's wastewater collection system, sewage will no longer be treated on site at individual properties but would be conveyed to the Los Osos Water Recycling Facility. At this facility, the wastewater is treated and reused as recycled water. By connecting additional parcels to the County's wastewater collection system, the influent to the Water Recycling Facility would increase, resulting in the production of additional recycled water supplies.

3. Project Area

This study documents a conceptual design to modify the approach to wastewater collection and treatment within Cabrillo Estates from existing individual septic systems to an expansion of the County's centralized wastewater collection and treatment system.

3.1 Vicinity and Service Area

The study area includes 266 residential parcels. The parcels to be served by this project are shown in **Attachment 1**. A summary of the number of parcels on each street within the community are shown in **Table 1**.

Table 1: Parcels on Each Street

Street Name	Number of Parcels
Rodman Dr.	86
Travis Dr.	55
Madera St.	18
San Sebastian Ln.	6
San Leandro Ave.	3
Vallejo Dr.	0
Bowie Dr.	8
San Jacinto Dr.	11
Alamo Dr.	7
Houston Dr.	19
Crocket Cir.	31
Austin Ct.	5
San Dominico Ave.	12
San Ricardo Ln.	5
Pecho Valley Rd.	0
Total	266

3.2 Current Land Use and Land Use Trends

Some properties in Cabrillo Estates remain undeveloped, while the majority contain a single residence. Recent state laws have established an expedited pathway for permitting Accessory Dwelling Units (ADUs). The future potential for Accessory Dwelling Units (ADUs) in Cabrillo Estates would be increased if the community transitions from septic systems to a centralized sewer system. With improved wastewater infrastructure, the primary constraint on additional residential units—septic capacity limitations—will be removed, allowing for more flexible land use. For the purpose of establishing peak future sewer flows, it is assumed all parcels within the study area will be developed, and 20% of parcels will construct an ADU at some point in the future.

3.3 Current Population and Population Trends

Currently, the average household population in Cabrillo Estates is estimated at 2.40 persons per residence based on United States Census Bureau data. With the potential future development as discussed in Section 2.2, the average per parcel population is conservatively expected to increase to an average of 3 people per parcel. This increase reflects the assumption that ADUs will either serve as independent rental units or provide additional living space for family members, supporting multigenerational households or long-term tenants.

This population assumption equates to an estimated buildout population for the community of 798 residents. This population is used as the basis of design for sizing of the system, ensuring that the system is designed to handle future peak flows without requiring further modifications.

4. Design Criteria

The following criteria were used in developing the proposed infrastructure improvements to the County's wastewater collection system in accordance with County Public Improvement Standards:

- Minimum diameter for gravity sewers: 8-inch
- Minimum slope for 8-inch pipe: 0.0035 ft/ft
- PVC ASTM Standard D-3034/SDR 35 to be used for all gravity sewer lines
- Manning's roughness coefficient of 0.011 for PVC with smooth inner walls
- Minimum pipe velocity of 2.0 ft/sec
- Maximum pipe velocity of 10.0 ft/sec
- Vertical drop across manhole: 0.17-feet
- Minimum manhole depth to invert: 4 feet
- Curved gravity sewers may be allowed if approved by the County and if no deflections are made at the pipe joints
- Maximum distance between manholes: 400 feet
- Maximum design capacity of gravity sewers occurs when depth divided by diameter (d/D) equals 0.5
- Sewer flow rates are 100 gallons per person per day.

A peaking factor of 2.0 was utilized as the basis of development of peak flow rates. The peaking factor is equal to the peak hour flow divided by the average daily flow.

5. Wastewater Design Flow Calculations

A capacity evaluation was completed to determine average and peak flow rates under future buildout conditions for each street within the community. The calculated contributing flow rates by street are summarized in **Table 2**. Flows are presented in gallons per minute (GPM)

Table 2: Average Flow Rates by Street

Street Name	Number of Parcels	Approximate Population	Average Flow Rate (GPM)
Rodman Dr.	86	258	17.92
Travis Dr.	55	165	11.46
Madera St.	18	54	3.75
San Sebastian Ln.	6	18	1.25
San Leandro Ave.	3	9	0.63
Vallejo Dr.	0	0	0.00
Bowie Dr.	8	24	1.67
San Jacinto Dr.	11	33	2.29
Alamo Dr.	7	21	1.46
Houston Dr.	19	57	3.96
Crocket Cir.	31	93	6.46
Austin Ct.	5	15	1.04
San Dominico Ave.	12	36	2.50
San Ricardo Ln.	5	15	1.04
Pecho Valley Rd.	0	0	0.00
Total	266	798	55.42

Using a peaking factor of 2.0 as discussed in Section 3, the calculated peak discharge flow rate from the expanded service area is 111 gpm. County staff have confirmed that the existing Los Osos wastewater collection system has capacity to convey this additional flow rate from the connection point on Pecho Valley Road to the Water Recycling Facility. This assumption was confirmed through a review and analysis of pump operation data at the Lupine and Mid-Town Pump Stations, provided by the County. The pump stations convey flow from the gravity collection system to the Water Recycling Facility. During detailed design, a more detailed analysis of these facilities should be complete, evaluating the wet well storage capacity and peak wet weather flows.

6. Conceptual Design Development

This section discusses the conceptual design developed as part of this Study.

6.1 Conceptual Design

The proposed infrastructure to connect the identified parcels to the collection system is shown in **Attachment 2** and is summarized in **Table 3**. Pipeline alignments were developed to extend the collection system to the parcels to be served. Proposed Infrastructure summarized in **Table 3** includes pipelines, manholes, cleanouts, and sewer laterals from the sewer main to the property line of each customer to be served.

Table 3: Proposed Infrastructure

Street Name	Number of Parcels/Sewer Laterals	Manholes	Cleanouts	8" Sewer Main (LF)
Rodman Dr	86	16	1	4,794
Travis Dr	55	11	1	2,740
Madera St	18	3	2	1,821
San Sebastian Ln	6	-	1	357
San Leandro Ave	3	-	1	221
Vallejo Dr	0	-	-	-
Bowie Dr	8	1	1	386
San Jacinto Dr	11	1	1	522
Alamo Dr	7	3	1	659

Houston Dr	19	3	1	965
Crocket Cir	31	6	2	1,550
Austin Ct	5	-	1	200
San Dominico Ave	12	2	1	1,011
San Ricardo Ln	5	1	1	523
Pecho Valley Rd	0	1	-	392
Total	266	48	15	16,141

6.2 Hydraulic Analysis

A hydraulic model of the collection system expansion was developed, with calculations included as Appendix A. Elevation data for the hydraulic model was based on surface elevation information obtained from Google Earth.

The calculated conveyance capacity for an 8-inch diameter gravity sewer at minimum slope in accordance with County standards is approximately 190 GPM. This capacity is less than the future peak buildout capacity of the Study area. Based on this calculation, 8-inch diameter piping is suitable for all new sewer mains included in the conceptual design. The County has indicated they may be willing to consider 6-inch diameter sewer mains in some areas where projected flows are low, to increase the flow velocity in the pipes to reduce accumulation of settleable solids.

The highest velocity in the system occurs on Travis Drive, where the steepest slope in the Study area occurs, with an approximate slope of 8%. Using a peaking factor of 2.0, a maximum flow velocity was calculated at this location. By applying this peaking factor, assuming a conservative $d/D=0.5$, and using the greatest slope of 8%, a maximum possible velocity was determined to be significantly less than 10 feet per second, the maximum allowable velocity per the County. As a result, the piping along Travis Drive and throughout the entire project can safely remain at an 8-inch diameter, without the need for drop manhole to dissipate energy.

6.3 Land Requirements

All public infrastructure associated with the project is located within the public right-of-way (ROW), ensuring construction and operations remain within designated public land boundaries. All sewer main connections are gravity sewers, therefore no easements or land purchases are required for pump stations.

6.4 Private Improvements

The transition from septic to sewer in Cabrillo Estates requires each individual property owner to undertake private improvements to connect their residences to the newly installed public sewer system. These improvements include lateral sewer construction, septic tank abandonment, and County fees for connection and permitting. Costs will vary depending on location, existing infrastructure and improvements, and property-specific needs. Private improvements will require approval by the County, including an assessment if the condition of existing on-site conveyance infrastructure will be suitable for reuse.

It is anticipated that construction of each sewer lateral from the sewer main to the property line would be included in the project to construct the new sewer mains. Construction of infrastructure to connect the residence to the sewer lateral would be the responsibility of the homeowner. Construction of on-site infrastructure may require a separate building permit from the County.

For properties where connection to the sewer main by gravity flow is feasible, a sewer lateral, typically 4-inch diameter piping, would be constructed from the house to the public sewer main. Depending on the location of existing wastewater infrastructure, some existing piping may be repurposed, reducing construction costs.

For properties where connection to the sewer main by gravity flow is infeasible due to topography, a residential pump system is required to convey wastewater from each residence to the property line, at which point, flow would transition from pressurized flow to gravity flow. Grinder pump systems, such as those manufactured by Environmental-One, are recommended for this application to minimize the potential for clogging and associated maintenance. These systems also have a sufficiently large storage tank to allow for continued water use during a short to moderate duration power outage.

The storage tank functions as a wet well for the resident's property. When the tank fills to a predetermined level, the grinder pump activates and breaks down the wastewater while discharging to the sewer.

To ensure competitive pricing, property owners are encouraged to obtain at least three quotes from different contractors for work on private property before proceeding with sewer work.

Piping for individual pumped lateral connections typically requires 1-1/4-inch diameter piping compared to 4 inches for an equivalent gravity system. This allows for minimalized disturbances during the installation process, resulting in lower surface restoration costs. This piping may also be installed using trenchless methods, eliminating surface disturbance.

Based on an analysis of the topography of the Study area, pumped sewer systems are anticipated to be required for some residences on Rodman Drive, Madera Street, Travis Drive, San Jacinto Drive, Alamo Drive, Austin Court, San Sebastian Lane, San Ricardo Lane and Crockett Circle. The number of parcels which will require on-site grinder pumps on these streets are listed on **Table 4** and shown in **Attachment 2**.

Table 4: Pump Requirements by Street

Street Name	Number of Parcels Requiring Pumps
Travis Dr.	15
San Jacinto Dr.	4
Alamo Dr.	4
Crocket Cir.	3
Austin Ct.	4
Rodman Dr.	7
Madera St.	6
San Sebastian Ln.	1
San Ricardo Ln.	1
Total	45

7. Environmental Impacts

An environmental due diligence memorandum was developed to identify potential environmental impacts of project construction, as well as anticipated permitting requirements and pathways. The complete memorandum is included as **Attachment 3**.

In summary, the Project is situated in the Los Osos area, which is covered by the Los Osos Habitat Conservation Plan (LOHCP). The environmental analysis identified critical habitat for several federally listed species, such as the Morro Bay kangaroo rat and Morro shoulderband snail. A literature review and preliminary field survey conducted by MNS confirmed the presence of sensitive habitats and species, requiring mitigation measures if disturbed. The Project is also located within the Coastal Zone and will need approval from the California Coastal Commission under the amended Los Osos Community Plan.

The Project aims to comply with the LOHCP and other environmental regulations by conducting required surveys, minimizing impacts to critical habitats, and implementing avoidance measures. No significant impacts on wetlands or federal/state waters are anticipated, as the alignment largely traverses paved and disturbed areas. However, participation in the LOHCP, preconstruction surveys, and a Coastal Development Permit are necessary for compliance. Anticipated measures required to avoid disturbances to nesting birds and other sensitive species during construction are recommended in the memorandum. Mitigation fees and measures will be required to ensure the Project's alignment with both local and federal environmental standards.

The Project will also need to comply with the California Environmental Quality Act (CEQA). An Initial Study/Mitigated Negative Declaration (IS/MND) is anticipated to be the appropriate level of environmental document for the Project.

8. Permitting Requirements

An encroachment permit from the County of San Luis Obispo will be required for construction of the Project, ensuring compliance with local regulations for work within public rights-of-way. No permits are required for state or federal waters as no streambeds, wetlands, or riparian vegetation were identified along the project alignment. Construction within disturbed roadways avoids impacts to critical habitats for federally listed species, eliminating the need for consultation with the U.S. Fish and Wildlife Service. However, timing construction outside the nesting bird season or conducting preconstruction nesting bird surveys is essential to comply with the Migratory Bird Treaty Act and California Fish and Game Code. These permitting steps and mitigation measures ensure that the Project adheres to environmental regulations while facilitating sustainable infrastructure development.

As discussed in Section 6, a Coastal Development Permit will be required for the Project.

9. Project Costs

A budgetary cost opinion was developed to document anticipated construction costs associated with the proposed infrastructure.

The following assumptions were included in the development of these costs:

- Sewer main alignment and manhole locations were determined based on the parcel map information. Actual roadway alignments and existing utilities may require additional manholes and modifications to the pipeline alignments.
- This Project includes installation of individual sewer laterals from the sewer main to a new property line cleanout. Costs for construction to connect individual residences to the sewer laterals at the property line cleanout will be the responsibility of the individual property owners and is anticipated to be between \$4,000 and \$10,000 per residence for gravity sewer connections. Costs for pumped laterals are anticipated to be between \$15,000 and \$40,000. Attributes significantly impacting the costs of improvements on private property include impacts to existing improvements, length of piping to be installed, installation method, selected pumping system (if required), electrical modifications (if required), costs to abandon existing septic systems, and access requirements.
- Sewer system connection fees are not included in this analysis.
- Additional costs associated with the connection of additional buildings and/or ADUs to the collection system have not been considered and are expected to vary from the costs described herein.
- No manhole linings will be required, and standard pre-cast concrete manholes will be used.
- Manhole frames and covers will be of the sealed locking type to minimize inflow.
- The pavement trench section will be in accordance with County and Los Osos standards.
- A 3% annual escalation rate has been applied to account for inflation, with an assumed 30-month duration to the mid-point of construction.
- A construction contingency of 20% is included in the construction costs to account for changes to the Project during design and construction.
- Construction of the Project will be led by the County, and as a result, prevailing wage requirements associated with public works construction will be required.

9.1 Construction Cost Opinion

The opinion of the probable cost of construction of the proposed improvements is \$8,270,000. This cost does not include the expense of improvements and adjustments on private properties. A detailed cost estimate is included as **Attachment 4**.

9.2 Total Implementation Costs

In addition to the costs associated with construction of the proposed improvements, costs will be incurred by the Project associated with engineering design, legal, public outreach, environmental permitting, construction management, and overall administration of the Project by the County. A discussion on each of these cost elements is provided in this section.

An estimate of the costs associated with each of these elements has been developed and is included in **Table 5**. During the detailed design of the Project, the costs associated with these project elements will be refined.

Engineering Services

Engineering design includes development of complete contract documents for the Project including the following tasks:

- Development of an assessment report
- Project management and coordination
- Topographic and aerial survey of the Project area
- Geotechnical testing and analysis
- Detailed design of all proposed improvements
- Bid support services
- Engineering support during construction

Legal

Legal includes all costs associated with the legal review and compliance associated with the Project including obtaining and establishing funding mechanisms for the Project.

Environmental Permitting

Environmental permitting includes costs incurred by the Project associated with obtaining, and compliance with environmental permits and clearances for this Project.

Construction Management

Construction management includes costs associated with management of the construction of the proposed improvements. This includes:

- County and CEPOA representation
- Construction inspection and testing services
- Construction scheduling and controls
- Change order management
- Dispute resolution
- Progress meetings

- Environmental compliance documentation
- Project documentation
- Start-up, testing, and acceptance
- Final construction summary reporting

Project Administration

Project Administration includes costs incurred by County associated with the internal management of the Project including County's staff time and other direct expenses.

Table 5: Total Project Implementation Costs

Description	Percentage of Construction Cost	Estimated Cost
Construction Cost	100%	\$8,270,000
Engineering Design	20%	\$1,654,000
Legal and Financing Costs	5%	\$413,500
Environmental Permitting and Compliance	2%	\$165,400
Construction Management and Contract Administration	30%	\$2,481,000
County Project Administration & Management	5%	\$413,500
Total		\$13,397,400
Per Parcel Implementation Cost (266 Parcels)		\$50,366
Connection Fee (Per Parcel)		\$25,000
Per Parcel Total Project Cost (266 Parcels)		\$75,366

9.3 Project Financing Considerations and Procedure

If CEPOA can demonstrate sufficient support exists for the Project, the County will consider advancement of the Project. An informal poll of all residences who would be included in the Project would be required to provide documentation of Project support. If a majority of residences provide written support of the Project, County staff would provide a recommendation to the County Board of Supervisors to take on the Project.

If the County Board of Supervisors approves taking on the Project, a formal Proposition 218 Poll will be conducted of property owners within Cabrillo Estates to confirm interest of the community in the Project based on anticipated Project costs. If the Proposition 218 vote is successful, the Project can initiate. Costs incurred prior to this point may be funded by the County a loan from the general fund, the Service to Special Districts fund, or require the community to fund the County's work. Regardless of the initial funding source, costs incurred prior to a successful Proposition 218 vote would likely need to be repaid through the Project construction funding mechanism.

There are multiple pathways to collect revenue for the implementation of the Project. The funding sources may include grants or loans from United States Department of Agriculture (USDA) or Clean Water State Revolving Fund (CWSRF), or other sources. The County could also provide initial funds for the Project by borrowing from the General Fund, however, any loan will need to be repaid by the community within a repayment period, anticipated to be 30-40 years, depending on the funding source. An assessment district on the parcels benefitting from the project, would likely be the source of generating funds for repayment of any loans.

10. Implementation Schedule

A conceptual Project implementation schedule has been prepared, and is provided as **Attachment 5**. The conceptual schedule indicated orderly progression of the Project could result in Project completion by mid-2029, with connection by

private residences occurring within an estimated 6-month period following project construction. It should be noted, that these types of projects may be subject to delays resulting from a variety of sources, such as permitting, county approvals, environmental concerns, etc.

11. Conclusion

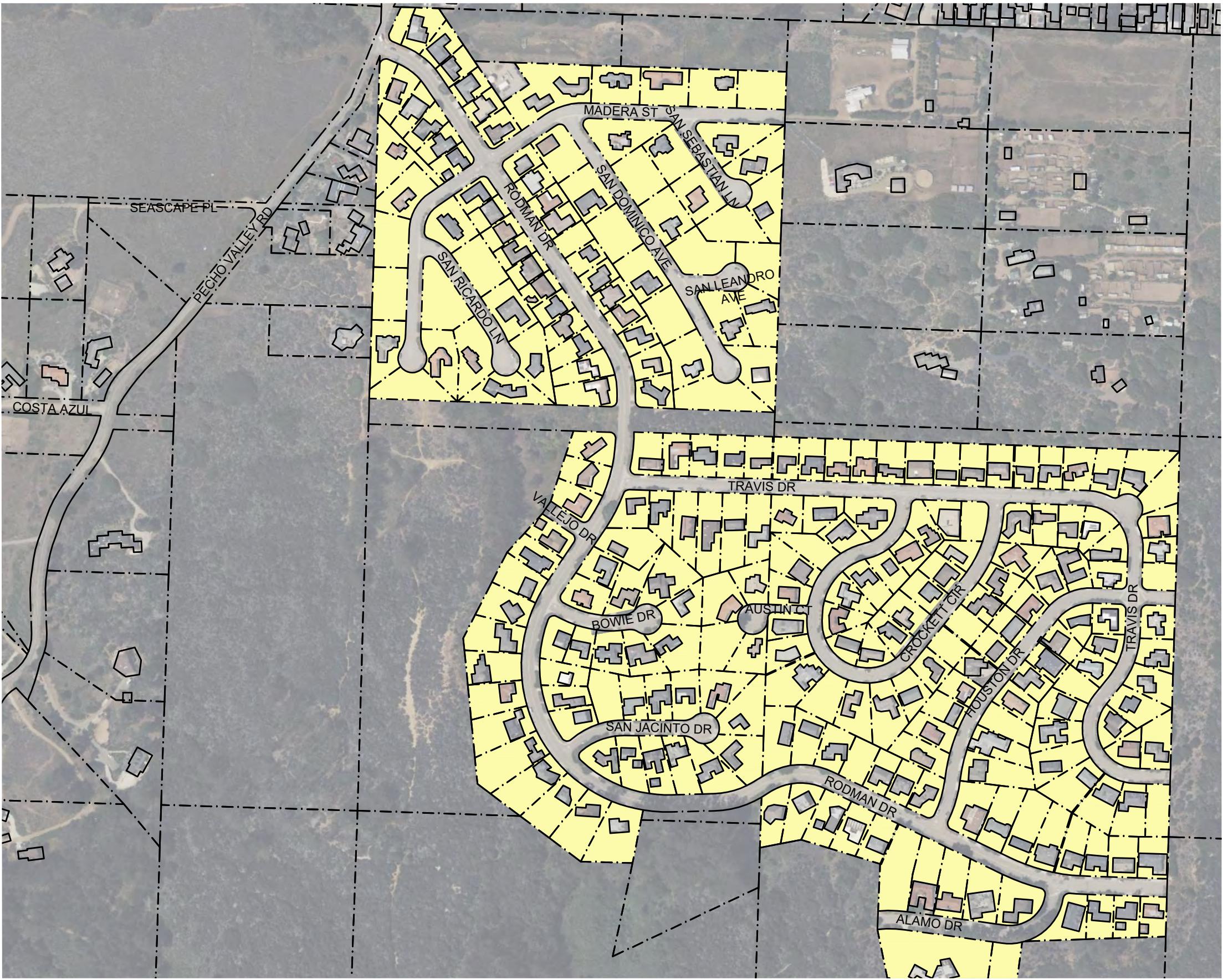
It is recommended that CEPOA proceeds with incorporating the Cabrillo Estates area parcels into the County's wastewater collection system. These improvements will help reduce groundwater contamination in the area by removing the septic tanks that are beginning to fail or otherwise contributing to water quality issues. Benefits include improvements to the surrounding area's water quality, eliminating the septic maintenance burden on the current homeowners, and increasing the supply of recycled water generated at the Water Recycling Facility, which reduces the demand for potable water for irrigation purposes.

Detailed engineering will need to be completed to develop contract documents for the construction of the proposed improvements. In addition, each individual property owner will be required to connect to the collection system.

If the Project costs for implementation are beyond those which could be borne by the community, applications for external funding, such as grants or low interest loans, should be pursued.

Attachment 1: Project Location Map

C:\Box\Projects\CEPOA Cabrillo Estates POA\CEPOA 240414.00 Septic To Sewer\5 Eng\ CAD_ Exhibits\PROJECT AREA.dwg
Tue 25 Feb 25 04:54:02 PM



THIS BAR IS 2 INCHES AT FULL
SCALE. IF NOT 2 INCHES, THEN
SCALE ACCORDINGLY.

SCALE:

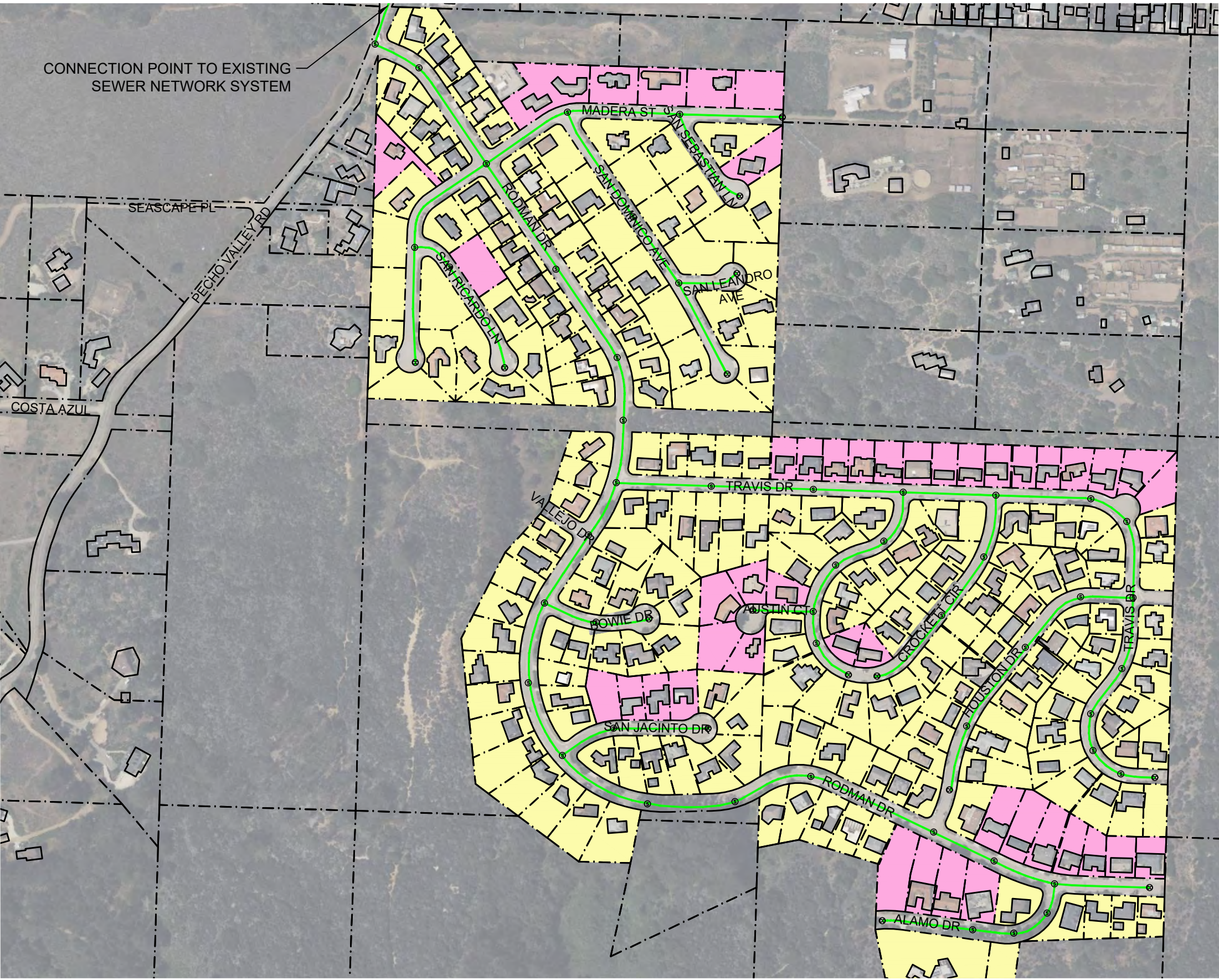
AS SHOWN

CABRILLO ESTATES PROPERTY OWNERS ASSOCIATION
PROJECT AREA

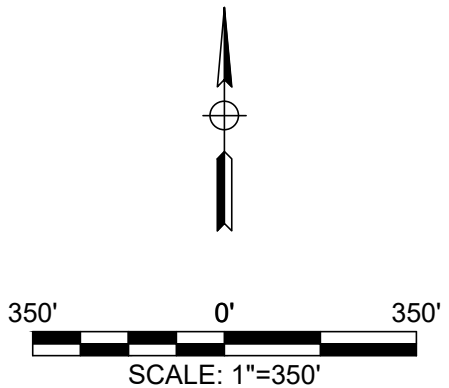
DRAWING NUMBER
ATTACHMENT 1
SHEET NUMBER
1 OF **1**

Attachment 2: Conceptual Design Plan

C:\Box\Projects\CEPOA Cabrillo Estates POA\CEPOA 240414.00 Septic To Sewer\5 Eng\ CAD_ Exhibits\PROJECT AREA.dwg
Tue 25 Feb 25 04:54:02 PM



- CABRILLO ESTATES PARCELS
- PARCELS REQUIRING PUMPS
- PROPOSED MANHOLE
- PROPOSED CLEANOUT
- PROPOSED SEWER ALIGNMENT



THIS BAR IS 2 INCHES AT FULL SCALE. IF NOT 2 INCHES, THEN SCALE ACCORDINGLY.

SCALE:
AS SHOWN

CABRILLO ESTATES PROPERTY OWNERS ASSOCIATION PROJECT AREA

DRAWING NUMBER
ATTACHMENT 2

SHEET NUMBER
1 OF **1**

Attachment 3: Environmental Due Diligence Report



SEPTIC TO SEWER CONCEPTUAL DESIGN REPORT – ENVIRONMENTAL DUE DILIGENCE REPORT

To:	Michael Simkins, Board President, Cabrillo Estates Property Owners Association		
Prepared By:	Shelah Riggs MNS Engineers	Checked By:	Nick Panofsky, PE MNS Engineers
Date:	February 6, 2025		
Project	Cabrillo Estates Property Owners Association (CEPOA), Los Osos, County of San Luis Obispo Septic to Sewer Conceptual Design Report and Implementation Cost Opinion		

1. Environmental Analysis

1.1 Site Location and Description

The Cabrillo Estates Septic to Sewer Project (Project) is anticipated to include approximately three miles of new gravity sewer mains throughout the Carillo Estates community, conveying wastewater from existing residences to the terminus of the existing County collection system located on Pecho Valley Road, north of the intersection of Pecho Valley Road and Rodman Drive. The Project alignments incorporate Pecho Valley Road, north of the intersection of Pecho Valley Road and Rodman Drive, east of Madera Street, west of Travis Drive and north of Alamo Drive. The Project location map is included in **Attachment A**.

MNS Engineers, Inc. (MNS) conducted a biological resources literature review and a preliminary field survey to confirm existing site conditions and assess the potential for special-status plant and wildlife species that have been documented or that are likely to occur on or within the immediate vicinity of the new gravity sewer alignments proposed in Cabrillo Estates. Previous special-status plant and wildlife species occurrence records within the U.S. Geological Survey's (USGS) Morro Bay South, California 7.5-minute quadrangle were determined through a query of the CNDDDB Biogeographic Information and Observation System (CDFW 2021a), the California Natural Diversity Database (CNDDDB) (CDFW 2021b), and the California Native Plant Society (CNPS) Online Inventory (CNPS 2021). In addition, the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) Project Planning Tool (USFWS 2021a), the USFWS National Wetlands Inventory (USFWS 2021b), the USFWS Threatened & Endangered Species Active Critical Habitat Report (USFWS 2021c) and those species covered under the Los Osos Habitat Conservation Plan (LOHCP) (County of San Luis Obispo 2024a) were also reviewed. Results of the literature review are provided in **Attachment B**.

1.2 Biological Resources

MNS Senior Biologist, Mello Dee Hrdlicka, conducted a preliminary field survey on December 30, 2024, to confirm existing site conditions and identify the presence of any sensitive biological resources that could pose a constraint to future development within the Project site. Site characteristics such as soil condition, topography, hydrology, anthropogenic disturbances, indicator species, condition of on-site vegetation communities, and the presence of potentially regulated jurisdictional features (e.g., drainages, vernal pools, streambed) were noted. Site photographs are included in **Attachment C**.

Based on the results of the field survey and a review of specific habitat preferences, occurrence records, known distributions, and elevation ranges, it was determined that the Project alignments also has the potential to support Morro Bay kangaroo rat (*Dipodomys*

heermanni morroensis, federal endangered) Morro shoulderband snail (*Helminthoglypta walkeriana*, federal endangered), Cooper's hawk (*Accipiter cooperii*; a California SSC), oak titmouse (*Baeolophus inornatus*; a bird of conservation concern), northern harrier (*Circus hudsonius*; a California SSC), white-tailed kite (*Elanus leucurus*; a California Fully Protected species), loggerhead shrike (*Lanius ludovicianus*; a California SSC), Heermann's gull (*Larus heermanni*; a bird of conservation concern) and Big Free-tailed bat (*Nyctinomops macrotis*; a California SSC). The majority of the alignments are within existing paved roadway and disturbed or unvegetated roadsides. One initially considered Project segment alignment on a slope north of and parallel to Travis Drive behind existing residences supports native vegetation that would be considered habitat for the two federal listed species; Morro Bay kangaroo rat and Morro shoulderband snail (Refer to **Attachment A** for the location). Presence/absence of these species within the alignments can be confirmed through protocol surveys conducted at the appropriate time of year, however, both species are addressed in the Los Osos Habitat Conservation Plan. As a result of potential impacts to these species, this segment of piping was eliminated from the Project.

Los Osos Habitat Conservation Plan

The County of San Luis Obispo adopted the Los Osos Habitat Conservation Plan (LOHCP), which includes Cabrillo Estates, in February 2024 (County of San Luis Obispo 2024a). The LOHCP authorizes take of Morro shoulderband snail, Morro manzanita (*Arctostaphylos morroensis*), Morro Bay kangaroo rat, and Indian Knob mountainbalm (*Eriodictyon altissimum*) as a result of private development and public/private utility projects. The plan assumes that "take" of Morro Bay kangaroo rat and Indian Knob mountainbalm will be avoided through pre-project surveys, so coverage under Section 2081 of the California Environmental Species Act (CESA) was not included in the LOHCP. The Cabrillo Estates development, including the Project alignments, is located within a Permit Area of the LOHCP where authorized activities are permitted with implementation of the avoidance and mitigation measures set forth in the plan.

Estero Area Plan/Los Osos Community Plan

The Cabrillo Estates area, including the proposed utility alignments, is located within the Coastal Zone and subject to project review and approval by the California Coastal Commission (CCC). The County of San Luis Obispo administers a Local Coastal Plan called the Estero Community Plan, which was recently amended in 2024 to include the Los Osos Community Plan. The Los Osos Community Plan (which includes Cabrillo Estates) was also approved by the CCC in 2024 (County of San Luis Obispo 2024b). The Plan requires participation in the LOHCP and development of a sustainable wastewater treatment system (such as the Los Osos sewer), which indicates CCC support of the Project since it would represent development of a sustainable wastewater treatment system.

Special-Status Species

The CNDDB and CNPS literature review identified twenty-four (24) special-status plant species and fifty (50) special-status wildlife species as occurring within the USGS *Morro Bay South, California* 7.5-minute quadrangle. The USFWS IPaC Project Planning Tool identified eighteen (18) special-status wildlife species and six (6) special-status plant species; 15 of the 18 special-status wildlife species identified, and 4 of the six special-status plant species identified overlap with the results of the CNDDB/CNPS for a total of twenty-six (26) special-status plant species and fifty-three (53) special-status wildlife species.

According to the USFWS Threatened & Endangered Species Active Critical Habitat Report (USFWS 2024c), critical habitat for the federally endangered Morro Bay kangaroo rat (*Dipodomys heermanni morroensis*) and the federally threatened Morro Shoulderband snail (*Helminthoglypta walkeriana*) occurs along Pecho Valley Road to the west where it intersects with Sea Wind Way to the north. A short segment of the proposed sewerline is designed along Pecho Valley Road and Sea Wind Way, to the intersection of Pecho Valley Road and Rodman Drive. While this area is disturbed and occurs along a roadside there is suitable leaf litter for Morro Shoulderband snail and grasslands for Morro Bay kangaroo rat. However, Morro Bay kangaroo rat and Morro Shoulderband Snail are covered species under the Los Osos HCP, which allows for participation through the County of San Luis Obispo.

In order to avoid impacts to nesting birds, any vegetation removal, tree (native or exotic) trimming activities, and ground disturbance should occur outside of the nesting bird season (February 1 – August 31). If avoidance of the nesting bird season is not feasible, a pre-construction nesting bird clearance survey should be conducted by a qualified biologist no more than seven (7) days prior to the

start of any vegetation removal or ground disturbing activities to maintain compliance with the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (CFGF) and ensure that impacts to nesting birds do not occur. The qualified biologist should survey all suitable nesting habitat within the Project site and within a biologically defensible buffer distance surrounding the Project area for the presence of nesting birds. If no active bird nests are detected, Project-related activities may begin. If an active nest is found, the bird should be identified to species and the approximate distance from the closest work site to the active nest should be estimated and the qualified biologist should establish a “no-disturbance” buffer around the active nest. The distance of the “no-disturbance” buffer may be increased or decreased according to the judgement of the qualified biologist depending on the level of construction activity and sensitivity of the species. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, project-related activities within the “no disturbance” buffer may occur.

Special-Status Vegetation Communities

The majority of the proposed alignments occurs within paved roadways and disturbed and/or unvegetated roadsides. Native vegetation is limited to Morro Manzanita habitat and Coast Live Oak woodland vegetation along the perimeter of the alignments, including a segment of the Project on Travis Drive where the vegetation occurred between and behind residences. The Morro Manzanita vegetation communities qualify as special-status, sensitive, or otherwise rare were identified on the Project site by MNS, and additional mitigation for loss of special-status vegetation communities is required under the Los Osos Habitat Conservation Plan (LOHCP).

Critical Habitat

Under the definition used by the federal Endangered Species Act (FESA), designated “Critical Habitat” refers to specific areas within the geographical range of a species that were occupied at the time it was listed that contain the physical or biological features that are essential to the survival and eventual recovery of that species and that may require special management considerations or protection, regardless of whether the species is still extant in the area.

According to the USFWS Threatened & Endangered Species Active Critical Habitat Report (USFWS 2024c), critical habitat for the federally endangered Morro Bay kangaroo rat (*Dipodomys heermanni morroensis*) and the federally threatened Morro Shoulderband snail (*Helminthoglypta walkeriana*) occurs along the western side of Pecho Valley Road, where it intersects with Sea Wind Way to the north. A small segment of proposed sewer main is expected to occur along Pecho Valley Road and Sea Wind Way to the intersection of Pecho Valley Road and Rodman Drive. However, work within paved roadways and disturbed roadsides would not result in the take of these species. Consultation with the US Fish and Wildlife Service for activities within critical habitat is only required when a federal nexus exists, such as issuance of a permit from the U.S. Army Corps of Engineers for work within streambeds. Because no federal nexus exists and work within this segment of the alignment occurs within paved roadway, no consultation or permits for work within critical habitat would be required.

Soils

According to the U.S. Department of Agriculture (USDA) *Custom Soil Resource Report for the Area, California* (USDA 2023), the property is underlain by the following soil units: Baywood fine sand, 2 to 9 percent slopes, 9 to 15 percent slopes, and 15 to 30 percent slopes. Refer to **Attachment E: Soils Map and Report**.

These soils are not considered hydric soils, but they are associated with Morro Manzanita vegetation and four narrowly endemic species; Morro Bay kangaroo rat (*Dipodomys heermanni morroensis*), Morro shoulderband snail (*Helminthoglypta walkeriana*), Morro Manzanita (*Arctostaphylos morroensis*); and Indian Knob mountainbalm (*Eriodictyon altissimum*).

State and Federal Waters and Wetlands

According to the USFWS National Wetlands Inventory (USFWS 2024b), 0.37 acre Freshwater Emergent Wetland habitat classified as a PEM1Cx and 0.20 acre Freshwater Emergent Wetland habitat classified as a PEM1Fx occur just northeast of Pecho Valley Road. While these areas are mapped as occurring on the Project site this area will not be impacted by the Project as there is no sewer line or other anticipated work in this area.

An improved, open storm gutter occurs along the side of several streets within the proposed alignments which would be considered existing urban infrastructure. No natural streambeds, drainages, or riparian vegetation was observed elsewhere along the Project alignments.

1.3 Anticipated Surveys

Based upon our review of the Project site we anticipate that the following surveys and pre-construction measures will be required. Estimated costs are provided for each survey.

Habitat Assessment

A formal assessment of the Project site's on-site biological resources and potential to support special-status biological resources should be conducted to support Project analysis under California Environmental Quality Act (CEQA). The assessment should make determinations on the potential for special-status resources to occur on the Project alignments and recommend avoidance and minimization measures, in compliance with the LOHCP. The habitat assessment should include a detailed map of potential habitat for Morro Bay kangaroo rat, Morro Shoulderband snail, and Big free-tailed bat within the Project footprint. Morro manzanita vegetation communities should be mapped.

MNS Comments – Habitat Assessment is anticipated to involve 3 days of fieldwork and cost approximately \$12,000.

Protocol and Preconstruction Surveys

Participation in the LOHCP requires implementation of preconstruction surveys, construction monitoring and other measures to avoid take of sensitive species. Implementation of these measures are expected to cost approximately \$10,000 assuming 4 days of construction within previously undisturbed areas.

MNS Comments – Protocol and preconstruction surveys estimated to cost up to approximately \$10,000.

Pre-Construction Nesting Bird Clearance Surveys

A nesting bird survey shall be conducted within three (3) days prior to the start of construction/ground disturbing activities. If active nests are discovered, a suitable buffer (distance to be determined by the biologist) shall be established around such active nests, and no construction/ground disturbing activities within the buffer allowed, until the biologist has determined that the nest(s) is no longer active (i.e., the nestlings have fledged and are no longer dependent on the nest).

MNS Comments – In the event that work is conducted within the nesting season, a preconstruction nesting survey would be required. Fieldwork is anticipated to involve two days if the entire Project area is surveyed at a cost of approximately \$9,000.

1.4 Resource Agency Permits and Mitigation

Based upon our review of site conditions and the relevant area plans, the permitting requirements associated with resource agencies are discussed as follows.

State and Federal Waters and Wetlands. As described above, no streambeds, wetlands, or riparian vegetation was observed within the Project alignments that could be considered state and federal waters. Therefore, no permits from the US Army Corps of Engineers, Regional Water Quality Control Board, or California Department of Fish and Wildlife would be required for work along the proposed alignments.

State and Federal Special Status Species. Construction of the alignments within the existing roadways and disturbed roadsides would not result in impacts to state or federal listed species or sensitive habitats. The timing of construction outside of the nesting season would avoid indirect impacts to sensitive bird species associated with construction noise and activity. Therefore, no permits from the US Fish and Wildlife Service or California Department of Fish and Wildlife would be required for work along the existing roadways.

The areas of the alignments that occur within vegetated or natural areas were found to support potential habitat for Morro Bay kangaroo rat and Morro Shoulderband snail, as well as sensitive Morro Manzanita vegetation. Work within these previously undisturbed segments of the alignments would require participation with the LOHCP through the County of San Luis Obispo. Because the proposed utility improvements are expected to be considered covered activities and the Cabrillo Estates is located within a LOHCP Permit Area, an application to the County of San Luis Obispo to participate in the Plan, payment of mitigation fees, and implementation of the preconstruction measures set forth in the LOHCP would be required. The County will issue a Los Osos Habitat Conservation Plan Certificate of Inclusion which would provide the proposed Project with “take” coverage under the LOHCP and Community-Wide Incidental Take Permit as long as the fees are paid and LOHCP avoidance measures followed.

Coastal Resources

The Cabrillo Estates area, including the proposed utility alignments, is located within the Coastal Zone and subject to project review and approval by the California Coastal Commission (CCC). Issuance of a Coastal Development Permit or exemption would be required through the CCC or through a local coastal plan for the proposed Project. The County of San Luis Obispo administers a Local Coastal Plan called the Estero Community Plan, which was recently amended in 2024 to include the Los Osos Community Plan. The Los Osos Community Plan (which includes Cabrillo Estates) was also approved by the CCC in 2024. The Plan requires participation in the LOHCP and development of a sustainable wastewater treatment system (such as the Los Osos sewer), which indicates CCC support of the proposed Project since it would represent development of a sustainable wastewater treatment system. In the event that the County of San Luis Obispo's Coastal Plan is authorized to include Los Osos at the time permits are applied for, permit issuance through the County (with a CCC appeal period) is recommended.

Mitigation for coastal wetlands and streambeds is typically set at a higher ratio, however, no streambeds, wetlands, or riparian vegetation was observed within the Project alignments during the December 2024 site visit conducted by MNS. We do not anticipate that coastal wetland mitigation will be required.

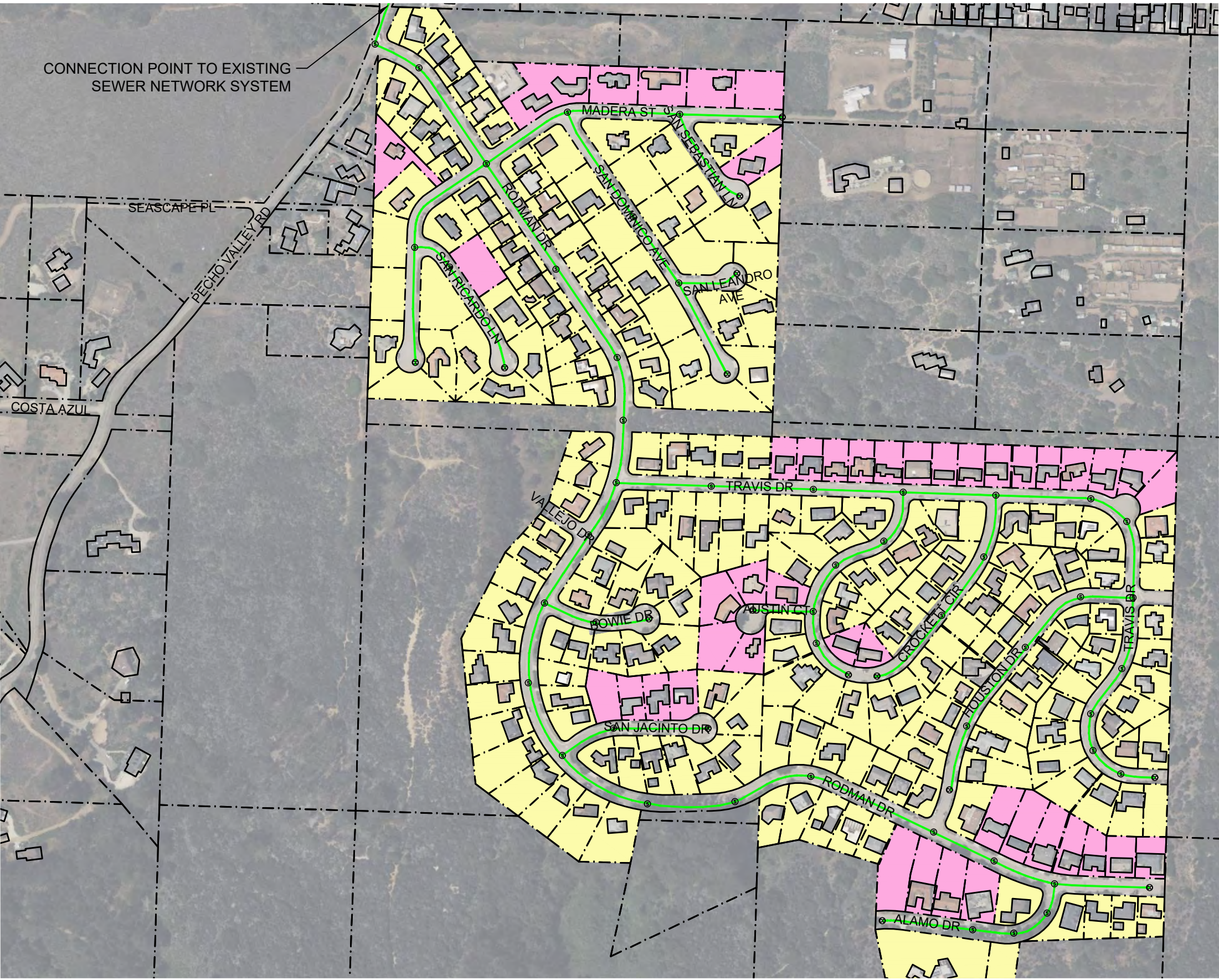
2. References

- California Department of Fish and Wildlife (CDFW). 2024a. Biogeographic Information and Observation System, California Natural Diversity Data Base, California. Data base report on threatened, endangered, rare or otherwise sensitive species and communities for the USGS Morro Bay South California 7.5-minute quadrangle.
- California Department of Fish and Wildlife (CDFW). 2024b. RareFind 5, California Natural Diversity Data Base, California. Data base report on threatened, endangered, rare or otherwise sensitive species and communities for the USGS Morro Bay South, California 7.5-minute quadrangle.
- California Native Plant Society (CNPS). 2024. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Accessed online at: <http://www.rareplants.cnps.org/>.
- County of San Luis Obispo. 2024a. Los Osos Habitat Conservation Plan (LOHCP). Jodi McGraw Consulting. February.
- County of San Luis Obispo. 2024b. Los Osos Community Plan. Accessed online at www.slocounty.ca.gov/departments/planning-building/forms-documents/plans-and-elements/community-plans. December 11
- U.S. Department of Agriculture (USDA). 2024. Custom Soil Resource Report for Los Osos, California. Accessed online at: <https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>.
- U.S. Department of the Interior, Fish and Wildlife Service (USFWS). 2024a. Information for Planning and Consultation (IPaC) Project Planning Tool. Accessed online at: <https://ecos.fws.gov/ipac/>.
- U.S. Department of the Interior, Fish and Wildlife Service (USFWS). 2024b. National Wetlands Inventory. Accessed online at: <https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/>.
- U.S. Department of the Interior, Fish and Wildlife Service (USFWS). 2024c. Threatened and Endangered Species Active Critical Habitat Report. Accessed online at: <http://criticalhabitat.fws.gov/crithab/flex/crithabMapper.jsp?>



Attachment A:Project Location Map

C:\Box\Projects\CEPOA Cabrillo Estates POA\CEPOA 240414.00 Septic To Sewer\5 Eng\ CAD_ Exhibits\PROJECT AREA.dwg
Tue 25 Feb 25 04:54:02 PM



THIS BAR IS 2 INCHES AT FULL SCALE. IF NOT 2 INCHES, THEN SCALE ACCORDINGLY.

SCALE:

AS SHOWN

CABRILLO ESTATES PROPERTY OWNERS ASSOCIATION

PROJECT AREA

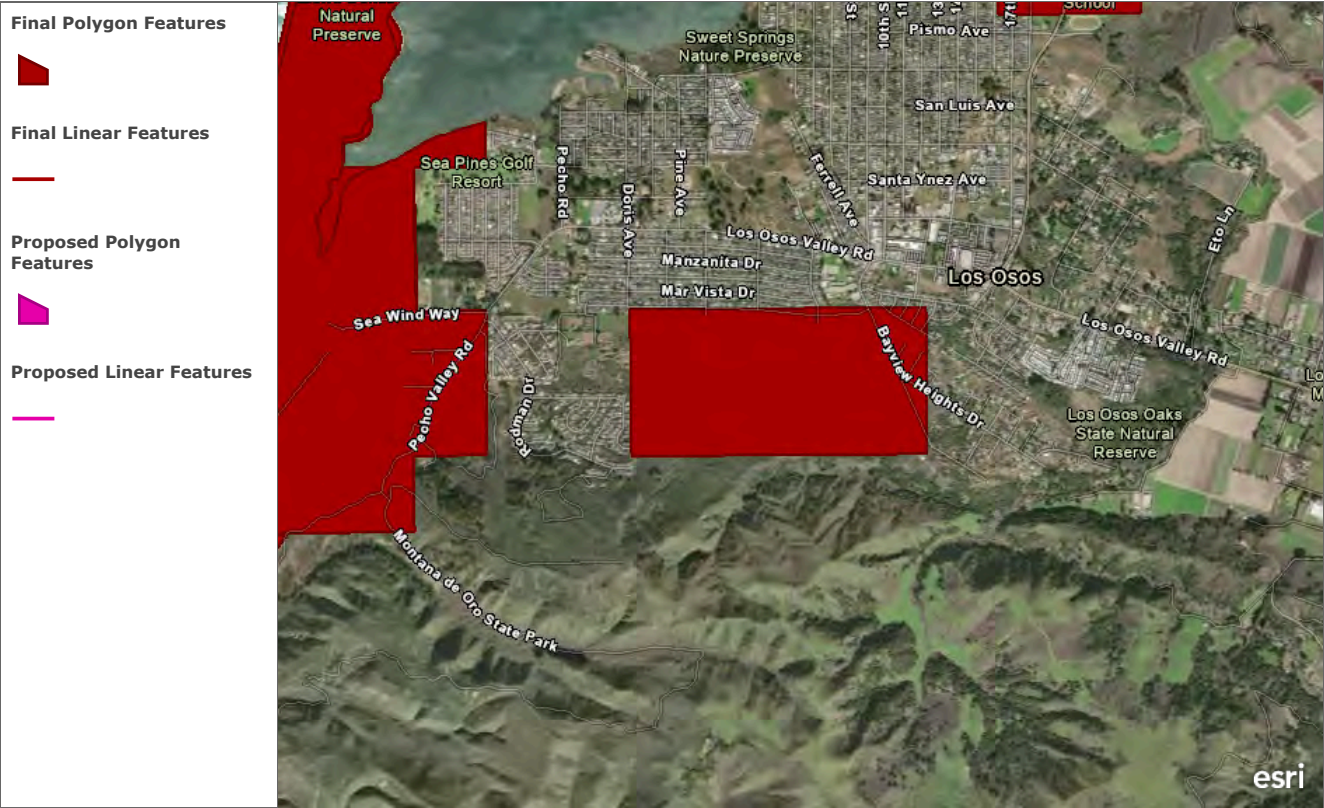
DRAWING NUMBER
ATTACHMENT 2

SHEET NUMBER
1 OF **1**



Attachment B: Literature Review Result

Critical Habitat for Threatened & Endangered Species [USFWS]



A specific geographic area(s) that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection.





Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community | Esri Community Maps Contributors, California State Parks, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, USFWS






CNPS Rare Plant Inventory





Search Results







101 matches found. Click on scientific name for details









Search Criteria: , 9-Quad include [3512026:3512036:3512046:3512027:3512037:3512047]





▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	CA ENDEMIC	DATE ADDED	PHOTO
<i>Abronia maritima</i>	red sand-verbena	Nyctaginaceae	perennial herb	Feb-Nov	None	None	G4	S3?	4.2		1994-01-01	 ©2003 Christopher L. Christie
<i>Agrostis hooveri</i>	Hoover's bent grass	Poaceae	perennial herb	Apr-Jul	None	None	G2	S2	1B.2	Yes	1974-01-01	 2017 Adonis (Don) Tate
<i>Arctostaphylos luciana</i>	Santa Lucia manzanita	Ericaceae	perennial evergreen shrub	Dec-Mar	None	None	G2	S2	1B.2	Yes	1974-01-01	 © 2011 David Graber
<i>Arctostaphylos morroensis</i>	Morro manzanita	Ericaceae	perennial evergreen shrub	Dec-Mar	FT	None	G1	S1	1B.1	Yes	1974-01-01	 © 2012 Jean Pawek
<i>Arctostaphylos obispoensis</i>	Bishop manzanita	Ericaceae	perennial evergreen shrub	Feb-Jun	None	None	G3	S3	4.3	Yes	1974-01-01	No Photo Available
<i>Arctostaphylos osoensis</i>	Oso manzanita	Ericaceae	perennial evergreen shrub	Feb-Mar	None	None	G1	S1	1B.2	Yes	1994-01-01	No Photo Available
<i>Arctostaphylos pechoensis</i>	Pecho manzanita	Ericaceae	perennial evergreen shrub	Nov-Mar	None	None	G2	S2	1B.2	Yes	1974-01-01	No Photo Available
<i>Arctostaphylos pilosula</i>	Santa Margarita manzanita	Ericaceae	perennial evergreen shrub	Dec-May	None	None	G2?	S2?	1B.2	Yes	1974-01-01	No Photo Available
<i>Arctostaphylos rudis</i>	sand mesa manzanita	Ericaceae	perennial evergreen shrub	Nov-Feb	None	None	G2	S2	1B.1	Yes	1980-01-01	No Photo Available
<i>Arctostaphylos tomentosa</i> ssp. <i>daciticola</i>	dacite manzanita	Ericaceae	perennial evergreen shrub	Mar-May	None	None	G4T1	S1	1B.1	Yes	1994-01-01	No Photo Available
<i>Arenaria paludicola</i>	marsh sandwort	Caryophyllaceae	perennial stoloniferous herb	May-Aug	FE	CE	G1	S1	1B.1		1984-01-01	No Photo Available
<i>Aspidotis carlotta-halliae</i>	Carlotta Hall's lace fern	Pteridaceae	perennial rhizomatous herb	Jan-Dec	None	None	G3	S3	4.2	Yes	1994-01-01	No Photo Available

<i>Astragalus didymocarpus</i> var. <i>milesianus</i>	Miles' milk-vetch	Fabaceae	annual herb	Mar-Jun	None	None	G5T2	S2	1B.2	Yes	2001-01-01	No Photo Available
<i>Astragalus nuttallii</i> var. <i>nuttallii</i>	ocean bluff milk-vetch	Fabaceae	perennial herb	Jan-Nov	None	None	G4T4	S4	4.2	Yes	2001-01-01	No Photo Available
<i>Atriplex coulteri</i>	Coulter's saltbush	Chenopodiaceae	perennial herb	Mar-Oct	None	None	G3	S2	1B.2		1994-01-01	No Photo Available
<i>Calandrinia breweri</i>	Brewer's calandrinia	Montiaceae	annual herb	(Jan)Mar-Jun	None	None	G4	S4	4.2		1994-01-01	No Photo Available
<i>Calochortus clavatus</i> var. <i>clavatus</i>	club-haired mariposa lily	Liliaceae	perennial bulbiferous herb	(Mar)May-Jun	None	None	G4T3	S3	4.3	Yes	1974-01-01	No Photo Available
<i>Calochortus obispoensis</i>	San Luis mariposa-lily	Liliaceae	perennial bulbiferous herb	May-Jul	None	None	G2	S2	1B.2	Yes	1974-01-01	No Photo Available
<i>Calochortus simulans</i>	La Panza mariposa-lily	Liliaceae	perennial bulbiferous herb	Apr-Jun	None	None	G2	S2	1B.3	Yes	1980-01-01	 © 2011 Aaron E. Sims
<i>Calystegia subacaulis</i> ssp. <i>episcopalis</i>	Cambria morning-glory	Convolvulaceae	perennial rhizomatous herb	(Mar)Apr-Jun(Jul)	None	None	G3T2?	S2?	4.2	Yes	1988-01-01	No Photo Available
<i>Camissoniopsis hardhamiae</i>	Hardham's evening-primrose	Onagraceae	annual herb	Mar-May	None	None	G2	S2	1B.2	Yes	1980-01-01	No Photo Available
<i>Carex obispoensis</i>	San Luis Obispo sedge	Cyperaceae	perennial cespitose herb	Apr-Jun	None	None	G3?	S3?	1B.2	Yes	1974-01-01	No Photo Available
<i>Castilleja densiflora</i> var. <i>obispoensis</i>	San Luis Obispo owl's-clover	Orobanchaceae	annual herb (hemiparasitic)	Mar-May	None	None	G5T2	S2	1B.2	Yes	2001-01-01	 © 2010 Aaron E. Sims
<i>Ceanothus cuneatus</i> var. <i>fascicularis</i>	Lompoc ceanothus	Rhamnaceae	perennial evergreen shrub	Feb-Apr	None	None	G5T4	S4	4.2	Yes	2001-01-01	No Photo Available
<i>Ceanothus impressus</i> var. <i>nipomensis</i>	Nipomo Mesa ceanothus	Rhamnaceae	perennial shrub	Feb-Apr	None	None	G3T2	S2	1B.2		2006-01-10	 © 2022 Debra L. Cook
<i>Ceanothus thyrsiflorus</i> var. <i>obispoensis</i>	San Luis Obispo ceanothus	Rhamnaceae	perennial shrub	Jun	None	None	G5T1	S1	1B.1	Yes	2019-01-30	No Photo Available
<i>Centromadia parryi</i> ssp. <i>congdonii</i>	Congdon's tarplant	Asteraceae	annual herb	(Apr)May-Oct(Nov)	None	None	G3T2	S2	1B.1	Yes	1994-01-01	No Photo Available
<i>Cercocarpus betuloides</i> var. <i>blancheae</i>	island mountain-mahogany	Rosaceae	perennial evergreen shrub	Feb-May	None	None	G5T4	S4	4.3	Yes	1974-01-01	No Photo Available
<i>Chenopodium littoreum</i>	coastal goosefoot	Chenopodiaceae	annual herb	Apr-Aug	None	None	G1	S1	1B.2	Yes	2011-06-01	 © 2011 Aaron E. Sims
<i>Chlorogalum pomeridianum</i> var. <i>minus</i>	dwarf soaproot	Agavaceae	perennial bulbiferous herb	May-Aug	None	None	G5T3	S3	1B.2	Yes	1994-01-01	 © 1997 Dean Wm Taylor

<i>Chloropyron maritimum</i> ssp. <i>palustre</i>	Point Reyes salty bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	Jun-Oct	None	None	G4?T2	S2	1B.2			1974-01-01	 ©2017 John Doyen
<i>Chorizanthe aphanantha</i>	Irish Hills spineflower	Polygonaceae	annual herb	Apr-Jun	None	None	G1	S1	1B.1	Yes		2019-06-11	 © 2019 Keir Morse
<i>Chorizanthe breweri</i>	Brewer's spineflower	Polygonaceae	annual herb	Apr-Aug	None	None	G3	S3	1B.3	Yes		1980-01-01	No Photo Available
<i>Chorizanthe douglasii</i>	Douglas' spineflower	Polygonaceae	annual herb	Apr-Jul	None	None	G4	S4	4.3	Yes		1974-01-01	No Photo Available
<i>Chorizanthe palmeri</i>	Palmer's spineflower	Polygonaceae	annual herb	Apr-Aug	None	None	G4	S4	4.2	Yes		1994-01-01	No Photo Available
<i>Chorizanthe rectispina</i>	straight-awned spineflower	Polygonaceae	annual herb	Apr-Jul	None	None	G2	S2	1B.2	Yes		1974-01-01	 © 1982 California Native Plant Society
<i>Chorizanthe ventricosa</i>	potbellied spineflower	Polygonaceae	annual herb	May-Sep	None	None	G3	S3	4.3	Yes		2001-01-01	No Photo Available
<i>Cirsium fontinale</i> var. <i>obispoense</i>	Chorro Creek bog thistle	Asteraceae	perennial herb	Feb-Jul(Aug-Sep)	FE	CE	G2T2	S2	1B.2	Yes		1974-01-01	No Photo Available
<i>Cirsium occidentale</i> var. <i>lucianum</i>	Cuesta Ridge thistle	Asteraceae	perennial herb	Apr-Jun	None	None	G3G4T2	S2	1B.2	Yes		2011-04-08	No Photo Available
<i>Cirsium rhotophilum</i>	surf thistle	Asteraceae	perennial herb	Apr-Jun	None	CT	G1	S1	1B.2	Yes		1974-01-01	No Photo Available
<i>Cladonia firma</i>	popcorn lichen	Cladoniaceae	squamulose lichen (terricolous)		None	None	G4	S1	2B.1			2014-03-01	No Photo Available
<i>Clarkia speciosa</i> ssp. <i>immaculata</i>	Pismo clarkia	Onagraceae	annual herb	May-Jul	FE	CR	G4T1	S1	1B.1	Yes		1980-01-01	No Photo Available
<i>Clinopodium mimuloides</i>	monkey-flower savory	Lamiaceae	perennial herb	Jun-Oct	None	None	G3	S3	4.2	Yes		2007-05-04	No Photo Available
<i>Deinandra paniculata</i>	paniculate tarplant	Asteraceae	annual herb	(Mar)Apr-Nov	None	None	G4	S4	4.2			2001-01-01	No Photo Available
<i>Delphinium parryi</i> ssp. <i>blochmaniae</i>	dune larkspur	Ranunculaceae	perennial herb	Apr-Jun	None	None	G4T2	S2	1B.2	Yes		1988-01-01	No Photo Available
<i>Delphinium parryi</i> ssp. <i>eastwoodiae</i>	Eastwood's larkspur	Ranunculaceae	perennial herb	(Feb)Mar-Apr	None	None	G4T2	S2	1B.2	Yes		2011-10-05	No Photo Available
<i>Delphinium umbraculorum</i>	umbrella larkspur	Ranunculaceae	perennial herb	Apr-Jun	None	None	G3	S3	1B.3	Yes		1974-01-01	 © 2016 Amelia Ryan
<i>Dithyrea maritima</i>	beach spectaclepod	Brassicaceae	perennial rhizomatous herb	Mar-May	None	CT	G1	S1	1B.1			1980-01-01	No Photo Available
<i>Dudleya abramsii</i> ssp. <i>bettinae</i>	Betty's dudleya	Crassulaceae	perennial herb	May-Jul	None	None	G4T2	S2	1B.2	Yes		1980-01-01	No Photo Available

<i>Dudleya abramsii</i> ssp. <i>murina</i>	mouse-gray dudleya	Crassulaceae	perennial leaf	May-Jun	None	None	G4T2	S2	1B.1	Yes	1980-01-01	 Chris Winchell
<i>Dudleya blochmaniae</i> ssp. <i>blochmaniae</i>	Blochman's dudleya	Crassulaceae	perennial herb	Apr-Jun	None	None	G3T2	S2	1B.1		1974-01-01	 © 2011 Aaron E. Sims
<i>Eriastrum luteum</i>	yellow-flowered eriastrum	Polemoniaceae	annual herb	May-Jun	None	None	G2	S2	1B.2	Yes	1974-01-01	No Photo Available
<i>Erigeron blochmaniae</i>	Blochman's leafy daisy	Asteraceae	perennial rhizomatous herb	Jun-Aug	None	None	G2	S2	1B.2	Yes	1974-01-01	No Photo Available
<i>Erigeron sanctarum</i>	saints' daisy	Asteraceae	perennial rhizomatous herb	Mar-Jul	None	None	G3	S3	4.2	Yes	1974-01-01	 © 2009 Adonis (Don) Tate
<i>Eriodictyon altissimum</i>	Indian Knob mountainbalm	Namaceae	perennial evergreen shrub	Mar-Jun	FE	CE	G1	S1	1B.1	Yes	1974-01-01	No Photo Available
<i>Eryngium aristulatum</i> var. <i>hooveri</i>	Hoover's button-celery	Apiaceae	annual/perennial herb	(Jun)Jul(Aug)	None	None	G5T1	S1	1B.1	Yes	1984-01-01	No Photo Available
<i>Erysimum capitatum</i> var. <i>lompocense</i>	San Luis Obispo wallflower	Brassicaceae	perennial herb	Feb-May	None	None	G5T3	S3	4.2	Yes	1974-01-01	No Photo Available
<i>Erysimum suffrutescens</i>	suffrutescent wallflower	Brassicaceae	perennial herb	Jan-Jul(Aug)	None	None	G3	S3	4.2	Yes	1980-01-01	No Photo Available
<i>Erythranthe serpentinicola</i>	Irish Hills monkeyflower	Phrymaceae	annual herb	Feb-May	None	None	G1	S1	1B.1		2022-03-30	No Photo Available
<i>Eschscholzia hypaeoides</i>	San Benito poppy	Papaveraceae	annual herb	Mar-Jun	None	None	G4	S4	4.3	Yes	1974-01-01	No Photo Available
<i>Extriplex joaquinana</i>	San Joaquin spearscale	Chenopodiaceae	annual herb	Apr-Oct	None	None	G2	S2	1B.2	Yes	1988-01-01	No Photo Available
<i>Fritillaria agrestis</i>	stinkbells	Liliaceae	perennial bulbiferous herb	Mar-Jun	None	None	G3	S3	4.2	Yes	1980-01-01	 © 2016 Aaron Schusteff
<i>Fritillaria ojaiensis</i>	Ojai fritillary	Liliaceae	perennial bulbiferous herb	Feb-May	None	None	G3	S3	1B.2	Yes	1980-01-01	 © 2010 David Magney
<i>Galium cliftonsmithii</i>	Santa Barbara bedstraw	Rubiaceae	perennial herb	May-Jul	None	None	G4	S4	4.3	Yes	1974-01-01	 © 2020 Brian Bielfelt

<i>Grindelia hirsutula</i> var. <i>maritima</i>	San Francisco gumplant	Asteraceae	perennial herb	Jun-Sep	None	None	G5T1Q	S1	3.2	Yes	1974-01-01	 Robert Potts © 2001 California Academy of Sciences
<i>Horkelia cuneata</i> var. <i>puberula</i>	mesa horkelia	Rosaceae	perennial herb	Feb-Jul(Sep)	None	None	G4T1	S1	1B.1	Yes	2001-01-01	 © 2008 Tony Morosco
<i>Horkelia cuneata</i> var. <i>sericea</i>	Kellogg's horkelia	Rosaceae	perennial herb	Apr-Sep	None	None	G4T1?	S1?	1B.1	Yes	1988-01-01	 © 2018 Neal Kramer
<i>Juncus acutus</i> ssp. <i>leopoldii</i>	southwestern spiny rush	Juncaceae	perennial rhizomatous herb	(Mar)May-Jun	None	None	G5T5	S4	4.2		1988-01-01	 © 2019 Belinda Lo
<i>Lasthenia californica</i> ssp. <i>macrantha</i>	perennial goldfields	Asteraceae	perennial herb	Jan-Nov	None	None	G3T2	S2	1B.2	Yes	2001-01-01	 © 2013 John Doyen
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i>	Coulter's goldfields	Asteraceae	annual herb	Feb-Jun	None	None	G4T2	S2	1B.1		1994-01-01	 © 2013 Keir Morse
<i>Lasthenia leptalea</i>	Salinas Valley goldfields	Asteraceae	annual herb	Feb-Apr	None	None	G3	S3	4.3	Yes	1974-01-01	No Photo Available
<i>Layia erubescens</i>	blushing layia	Asteraceae	annual herb	(Feb)Mar-May(Jun)	None	None	G2	S2	1B.2		2022-12-22	 © 2023 Adonis (Don) Tate
<i>Layia jonesii</i>	Jones' layia	Asteraceae	annual herb	Mar-May	None	None	G2	S2	1B.2	Yes	1974-01-01	 © 2011 Chris Winchell
<i>Leptosiphon grandiflorus</i>	large-flowered leptosiphon	Polemoniaceae	annual herb	Apr-Aug	None	None	G3G4	S3S4	4.2	Yes	1994-01-01	 © 2003 Doreen L. Smith
<i>Lomatium parvifolium</i>	small-leaved lomatium	Apiaceae	perennial herb	Jan-Jun	None	None	G3	S3	4.2	Yes	1974-01-01	No Photo Available
<i>Lupinus ludovicianus</i>	San Luis Obispo County lupine	Fabaceae	perennial herb	Apr-Jul	None	None	G1	S1	1B.2	Yes	1974-01-01	No Photo Available
<i>Malacothamnus palmeri</i>	Santa Lucia bushmallow	Malvaceae	perennial deciduous shrub	May-Jul	None	None	G3T2Q	S2	1B.2	Yes	1974-01-01	 © 2017 Keir Morse
<i>Monardella palmeri</i>	Palmer's monardella	Lamiaceae	perennial rhizomatous herb	Jun-Aug	None	None	G2	S2	1B.2	Yes	1974-01-01	 © 2012 Chris Winchell

<i>Monardella sinuata</i> ssp. <i>sinuata</i>	southern curly-leaved monardella	Lamiaceae	annual herb	Apr-Sep	None	None	G3T2	S2	1B.2	Yes	2013-12-31	 © 2017 Keir Morse
<i>Monolopia gracilens</i>	woodland woollythreads	Asteraceae	annual herb	(Feb)Mar-Jul	None	None	G3	S3	1B.2	Yes	2010-04-06	 © 2016 Richard Spellenberg
<i>Mucronea californica</i>	California spineflower	Polygonaceae	annual herb	Mar-Jul(Aug)	None	None	G3	S3	4.2	Yes	1988-01-01	 © 2018 Debra L. Cook
<i>Muhlenbergia utilis</i>	aparejo grass	Poaceae	perennial rhizomatous herb	Mar-Oct	None	None	G4	S2S3	2B.2		2019-07-10	No Photo Available
<i>Nemacaulis denudata</i> var. <i>denudata</i>	coast woolly-heads	Polygonaceae	annual herb	Apr-Sep	None	None	G3G4T2	S2	1B.2		1994-01-01	No Photo Available
<i>Perideridia pringlei</i>	adobe yampah	Apiaceae	perennial herb	Apr-Jun(Jul)	None	None	G4	S4	4.3	Yes	1974-01-01	No Photo Available
<i>Piperia michaelii</i>	Michael's rein orchid	Orchidaceae	perennial herb	Apr-Aug	None	None	G3	S3	4.2	Yes	1984-01-01	No Photo Available
<i>Plagiobothrys uncinatus</i>	hooked popcornflower	Boraginaceae	annual herb	Apr-May	None	None	G2	S2	1B.2	Yes	1974-01-01	No Photo Available
<i>Poa diaboli</i>	Diablo Canyon blue grass	Poaceae	perennial rhizomatous herb	Mar-Apr	None	None	G2	S2	1B.2	Yes	2005-01-01	No Photo Available
<i>Prunus fasciculata</i> var. <i>punctata</i>	sand almond	Rosaceae	perennial deciduous shrub	Mar-Apr	None	None	G5T4	S4	4.3	Yes	1974-01-01	No Photo Available
<i>Ribes sericeum</i>	Santa Lucia gooseberry	Grossulariaceae	perennial deciduous shrub	Feb-Apr	None	None	G4	S4	4.3	Yes	1974-01-01	No Photo Available
<i>Sanicula hoffmannii</i>	Hoffmann's sanicle	Apiaceae	perennial herb	Mar-May	None	None	G3	S3	4.3	Yes	1974-01-01	No Photo Available
<i>Sanicula maritima</i>	adobe sanicle	Apiaceae	perennial herb	Feb-May	None	CR	G2	S2	1B.1	Yes	1974-01-01	No Photo Available
<i>Scrophularia atrata</i>	black-flowered figwort	Scrophulariaceae	perennial herb	Mar-Jul	None	None	G2?	S2?	1B.2	Yes	1974-01-01	No Photo Available
<i>Senecio aphanactis</i>	chaparral ragwort	Asteraceae	annual herb	Jan-Apr(May)	None	None	G3	S2	2B.2		1994-01-01	No Photo Available
<i>Senecio astephanus</i>	San Gabriel ragwort	Asteraceae	perennial herb	May-Jul	None	None	G3	S3	4.3	Yes	2006-12-21	No Photo Available
<i>Senecio blochmaniae</i>	Blochman's ragwort	Asteraceae	perennial herb	May-Oct	None	None	G3	S3	4.2	Yes	1974-01-01	No Photo Available
<i>Sidalcea hickmanii</i> ssp. <i>anomala</i>	Cuesta Pass checkerbloom	Malvaceae	perennial herb	May-Jun	None	CR	G2T1	S1	1B.2	Yes	1974-01-01	No Photo Available
<i>Streptanthus albidus</i> ssp. <i>peramoenus</i>	most beautiful jewelflower	Brassicaceae	annual herb	(Mar)Apr-Sep(Oct)	None	None	G2T2	S2	1B.2	Yes	1988-01-01	 © 1994 Robert E. Preston, Ph.D.

<i>Suaeda californica</i>	California seablite	Chenopodiaceae	perennial evergreen shrub	Jul-Oct	FE	None	G1	S1	1B.1	Yes	1988-01-01	 © 2010 Chris Winchell
<i>Sulcaria isidiifera</i>	splitting yarn lichen	Alectoriaceae	fruticose lichen (epiphytic)		None	None	G1	S1	1B.1	Yes	2014-03-01	No Photo Available
<i>Sulcaria spiraliifera</i>	twisted horsehair lichen	Parmeliaceae	fruticose lichen (epiphytic)		None	None	G3G4	S2	1B.2		2014-03-01	 © 2021 Scot Loring
<i>Trifolium hydrophilum</i>	saline clover	Fabaceae	annual herb	Apr-Jun	None	None	G2	S2	1B.2	Yes	2001-01-01	 © 2005 Dean Wm Taylor

Showing 1 to 101 of 101 entries

Go to top

Suggested Citation:
California Native Plant Society, Rare Plant Program. 2024. Rare Plant Inventory (online edition, v9.5.1). Website <https://www.rareplants.cnps.org> [accessed 26 December 2024].
}

Element_Type	Scientific_Name	Common_Name	Element_Code	Federal_Status	State_Status	CDFW_Status	CA_Rare_Plant_Rank	Quad_Code	Quad_Name	Data_Status	Taxonomic_Sort
Animals - Amphibians	Batrachoseps incognitus	San Simeon slender salamander	AAAAD02180	None	None	-	-	3512046	ATASCADERO	Unprocessed	Animals - Amphibians - Plethodontidae - Batrachoseps incognitus
Animals - Amphibians	Batrachoseps minor	lesser slender salamander	AAAAD02170	None	None	SSC	-	3512046	ATASCADERO	Mapped and Unprocessed	Animals - Amphibians - Plethodontidae - Batrachoseps minor
Animals - Amphibians	Batrachoseps minor	lesser slender salamander	AAAAD02170	None	None	SSC	-	3512047	MORRO BAY NORTH	Mapped and Unprocessed	Animals - Amphibians - Plethodontidae - Batrachoseps minor
Animals - Amphibians	Batrachoseps minor	lesser slender salamander	AAAAD02170	None	None	SSC	-	3512036	SAN LUIS OBISPO	Mapped	Animals - Amphibians - Plethodontidae - Batrachoseps minor
Animals - Amphibians	Rana boylei pop. 6	foothill yellow-legged frog - south coast DPS	AAABH01056	Endangered	Endangered	-	-	3512036	SAN LUIS OBISPO	Mapped and Unprocessed	Animals - Amphibians - Ranidae - Rana boylei pop. 6
Animals - Amphibians	Rana draytonii	California red-legged frog	AAABH01022	Threatened	None	SSC	-	3512036	SAN LUIS OBISPO	Mapped and Unprocessed	Animals - Amphibians - Ranidae - Rana draytonii
Animals - Amphibians	Rana draytonii	California red-legged frog	AAABH01022	Threatened	None	SSC	-	3512047	MORRO BAY NORTH	Mapped and Unprocessed	Animals - Amphibians - Ranidae - Rana draytonii
Animals - Amphibians	Rana draytonii	California red-legged frog	AAABH01022	Threatened	None	SSC	-	3512046	ATASCADERO	Mapped and Unprocessed	Animals - Amphibians - Ranidae - Rana draytonii
Animals - Amphibians	Rana draytonii	California red-legged frog	AAABH01022	Threatened	None	SSC	-	3512037	MORRO BAY SOUTH	Mapped and Unprocessed	Animals - Amphibians - Ranidae - Rana draytonii
Animals - Amphibians	Rana draytonii	California red-legged frog	AAABH01022	Threatened	None	SSC	-	3512027	PORT SAN LUIS	Unprocessed	Animals - Amphibians - Ranidae - Rana draytonii
Animals - Amphibians	Rana draytonii	California red-legged frog	AAABH01022	Threatened	None	SSC	-	3512026	PISMO BEACH	Mapped and Unprocessed	Animals - Amphibians - Ranidae - Rana draytonii
Animals - Amphibians	Taricha torosa	Coast Range newt	AAAAF02032	None	None	SSC	-	3512046	ATASCADERO	Mapped and Unprocessed	Animals - Amphibians - Salamandridae - Taricha torosa
Animals - Amphibians	Taricha torosa	Coast Range newt	AAAAF02032	None	None	SSC	-	3512047	MORRO BAY NORTH	Unprocessed	Animals - Amphibians - Salamandridae - Taricha torosa
Animals - Amphibians	Taricha torosa	Coast Range newt	AAAAF02032	None	None	SSC	-	3512036	SAN LUIS OBISPO	Mapped and Unprocessed	Animals - Amphibians - Salamandridae - Taricha torosa
Animals - Amphibians	Spea hammondi	western spadefoot	AAABF02020	Proposed Threatened	None	SSC	-	3512046	ATASCADERO	Mapped	Animals - Amphibians - Scaphiopodidae - Spea hammondi
Animals - Birds	Accipiter cooperii	Coopers hawk	ABNKC12040	None	None	WL	-	3512047	MORRO BAY NORTH	Unprocessed	Animals - Birds - Accipitridae - Accipiter cooperii
Animals - Birds	Accipiter cooperii	Coopers hawk	ABNKC12040	None	None	WL	-	3512037	MORRO BAY SOUTH	Mapped and Unprocessed	Animals - Birds - Accipitridae - Accipiter cooperii
Animals - Birds	Accipiter cooperii	Coopers hawk	ABNKC12040	None	None	WL	-	3512036	SAN LUIS OBISPO	Unprocessed	Animals - Birds - Accipitridae - Accipiter cooperii
Animals - Birds	Aquila chrysaetos	golden eagle	ABNKC22010	None	None	FP WL	-	3512036	SAN LUIS OBISPO	Unprocessed	Animals - Birds - Accipitridae - Aquila chrysaetos
Animals - Birds	Aquila chrysaetos	golden eagle	ABNKC22010	None	None	FP WL	-	3512037	MORRO BAY SOUTH	Unprocessed	Animals - Birds - Accipitridae - Aquila chrysaetos
Animals - Birds	Aquila chrysaetos	golden eagle	ABNKC22010	None	None	FP WL	-	3512046	ATASCADERO	Mapped and Unprocessed	Animals - Birds - Accipitridae - Aquila chrysaetos
Animals - Birds	Aquila chrysaetos	golden eagle	ABNKC22010	None	None	FP WL	-	3512026	PISMO BEACH	Unprocessed	Animals - Birds - Accipitridae - Aquila chrysaetos
Animals - Birds	Aquila chrysaetos	golden eagle	ABNKC22010	None	None	FP WL	-	3512027	PORT SAN LUIS	Unprocessed	Animals - Birds - Accipitridae - Aquila chrysaetos
Animals - Birds	Buteo regalis	ferruginous hawk	ABNKC19120	None	None	WL	-	3512026	PISMO BEACH	Unprocessed	Animals - Birds - Accipitridae - Buteo regalis
Animals - Birds	Buteo regalis	ferruginous hawk	ABNKC19120	None	None	WL	-	3512036	SAN LUIS OBISPO	Mapped and Unprocessed	Animals - Birds - Accipitridae - Buteo regalis
Animals - Birds	Circus hudsonius	northern harrier	ABNKC11011	None	None	SSC	-	3512037	MORRO BAY SOUTH	Unprocessed	Animals - Birds - Accipitridae - Circus hudsonius
Animals - Birds	Elanus leucurus	white-tailed kite	ABNKC06010	None	None	FP	-	3512046	ATASCADERO	Unprocessed	Animals - Birds - Accipitridae - Elanus leucurus

Animals - Birds	Elanus leucurus	white-tailed kite	ABNKC06010	None	None	FP	-	3512036	SAN LUIS OBISPO	Mapped and Unprocessed	Animals - Birds - Accipitridae - Elanus leucurus
Animals - Birds	Elanus leucurus	white-tailed kite	ABNKC06010	None	None	FP	-	3512026	PISMO BEACH	Mapped and Unprocessed	Animals - Birds - Accipitridae - Elanus leucurus
Animals - Birds	Haliaeetus leucocephalus	bald eagle	ABNKC10010	Delisted	Endangered	FP	-	3512026	PISMO BEACH	Unprocessed	Animals - Birds - Accipitridae - Haliaeetus leucocephalus
Animals - Birds	Haliaeetus leucocephalus	bald eagle	ABNKC10010	Delisted	Endangered	FP	-	3512036	SAN LUIS OBISPO	Unprocessed	Animals - Birds - Accipitridae - Haliaeetus leucocephalus
Animals - Birds	Eremophila alpestris actia	California horned lark	ABPAT02011	None	None	WL	-	3512036	SAN LUIS OBISPO	Mapped and Unprocessed	Animals - Birds - Alaudidae - Eremophila alpestris actia
Animals - Birds	Branta bernicla	brant	ABNJB05010	None	None	SSC	-	3512037	MORRO BAY SOUTH	Unprocessed	Animals - Birds - Anatidae - Branta bernicla
Animals - Birds	Branta bernicla	brant	ABNJB05010	None	None	SSC	-	3512027	PORT SAN LUIS	Unprocessed	Animals - Birds - Anatidae - Branta bernicla
Animals - Birds	Ardea alba	great egret	ABNGA04040	None	None	-	-	3512027	PORT SAN LUIS	Unprocessed	Animals - Birds - Ardeidae - Ardea alba
Animals - Birds	Ardea alba	great egret	ABNGA04040	None	None	-	-	3512037	MORRO BAY SOUTH	Unprocessed	Animals - Birds - Ardeidae - Ardea alba
Animals - Birds	Ardea alba	great egret	ABNGA04040	None	None	-	-	3512047	MORRO BAY NORTH	Unprocessed	Animals - Birds - Ardeidae - Ardea alba
Animals - Birds	Ardea herodias	great blue heron	ABNGA04010	None	None	-	-	3512047	MORRO BAY NORTH	Unprocessed	Animals - Birds - Ardeidae - Ardea herodias
Animals - Birds	Ardea herodias	great blue heron	ABNGA04010	None	None	-	-	3512037	MORRO BAY SOUTH	Unprocessed	Animals - Birds - Ardeidae - Ardea herodias
Animals - Birds	Ardea herodias	great blue heron	ABNGA04010	None	None	-	-	3512036	SAN LUIS OBISPO	Unprocessed	Animals - Birds - Ardeidae - Ardea herodias
Animals - Birds	Ardea herodias	great blue heron	ABNGA04010	None	None	-	-	3512026	PISMO BEACH	Unprocessed	Animals - Birds - Ardeidae - Ardea herodias
Animals - Birds	Egretta thula	snowy egret	ABNGA06030	None	None	-	-	3512027	PORT SAN LUIS	Unprocessed	Animals - Birds - Ardeidae - Egretta thula
Animals - Birds	Egretta thula	snowy egret	ABNGA06030	None	None	-	-	3512037	MORRO BAY SOUTH	Unprocessed	Animals - Birds - Ardeidae - Egretta thula
Animals - Birds	Ixobrychus exilis	least bittern	ABNGA02010	None	None	SSC	-	3512037	MORRO BAY SOUTH	Unprocessed	Animals - Birds - Ardeidae - Ixobrychus exilis
Animals - Birds	Ixobrychus exilis	least bittern	ABNGA02010	None	None	SSC	-	3512047	MORRO BAY NORTH	Unprocessed	Animals - Birds - Ardeidae - Ixobrychus exilis
Animals - Birds	Nycticorax nycticorax	black-crowned night heron	ABNGA11010	None	None	-	-	3512037	MORRO BAY SOUTH	Unprocessed	Animals - Birds - Ardeidae - Nycticorax nycticorax
Animals - Birds	Gymnogyps californianus	California condor	ABNKA03010	Endangered	Endangered	FP	-	3512037	MORRO BAY SOUTH	Unprocessed	Animals - Birds - Cathartidae - Gymnogyps californianus
Animals - Birds	Gymnogyps californianus	California condor	ABNKA03010	Endangered	Endangered	FP	-	3512036	SAN LUIS OBISPO	Unprocessed	Animals - Birds - Cathartidae - Gymnogyps californianus
Animals - Birds	Charadrius montanus	mountain plover	ABNNB03100	None	None	SSC	-	3512037	MORRO BAY SOUTH	Unprocessed	Animals - Birds - Charadriidae - Charadrius montanus
Animals - Birds	Charadrius nivosus nivosus	western snowy plover	ABNNB03031	Threatened	None	SSC	-	3512037	MORRO BAY SOUTH	Mapped and Unprocessed	Animals - Birds - Charadriidae - Charadrius nivosus nivosus
Animals - Birds	Charadrius nivosus nivosus	western snowy plover	ABNNB03031	Threatened	None	SSC	-	3512047	MORRO BAY NORTH	Mapped and Unprocessed	Animals - Birds - Charadriidae - Charadrius nivosus nivosus
Animals - Birds	Charadrius nivosus nivosus	western snowy plover	ABNNB03031	Threatened	None	SSC	-	3512026	PISMO BEACH	Mapped	Animals - Birds - Charadriidae - Charadrius nivosus nivosus
Animals - Birds	Coccyzus americanus occidentalis	western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	-	-	3512026	PISMO BEACH	Mapped	Animals - Birds - Cuculidae - Coccyzus americanus occidentalis
Animals - Birds	Falco peregrinus anatum	American peregrine falcon	ABNKD06071	Delisted	Delisted	-	-	3512027	PORT SAN LUIS	Unprocessed	Animals - Birds - Falconidae - Falco peregrinus anatum
Animals - Birds	Falco peregrinus anatum	American peregrine falcon	ABNKD06071	Delisted	Delisted	-	-	3512037	MORRO BAY SOUTH	Unprocessed	Animals - Birds - Falconidae - Falco peregrinus anatum
Animals - Birds	Falco peregrinus anatum	American peregrine falcon	ABNKD06071	Delisted	Delisted	-	-	3512036	SAN LUIS OBISPO	Unprocessed	Animals - Birds - Falconidae - Falco peregrinus anatum
Animals - Birds	Gavia immer	common loon	ABNBA01030	None	None	SSC	-	3512037	MORRO BAY SOUTH	Unprocessed	Animals - Birds - Gaviidae - Gavia immer

Animals - Birds	Gavia immer	common loon	ABNBA01030	None	None	SSC	-	3512047	MORRO BAY NORTH	Unprocessed	Animals - Birds - Gaviidae - Gavia immer
Animals - Birds	Gavia immer	common loon	ABNBA01030	None	None	SSC	-	3512027	PORT SAN LUIS	Unprocessed	Animals - Birds - Gaviidae - Gavia immer
Animals - Birds	Gavia immer	common loon	ABNBA01030	None	None	SSC	-	3512026	PISMO BEACH	Unprocessed	Animals - Birds - Gaviidae - Gavia immer
Animals - Birds	Progne subis	purple martin	ABPAU01010	None	None	SSC	-	3512046	ATASCADERO	Mapped	Animals - Birds - Hirundinidae - Progne subis
Animals - Birds	Agelaius tricolor	tricolored blackbird	ABPBXB0020	None	Threatened	SSC	-	3512037	MORRO BAY SOUTH	Mapped and Unprocessed	Animals - Birds - Icteridae - Agelaius tricolor
Animals - Birds	Agelaius tricolor	tricolored blackbird	ABPBXB0020	None	Threatened	SSC	-	3512036	SAN LUIS OBISPO	Mapped and Unprocessed	Animals - Birds - Icteridae - Agelaius tricolor
Animals - Birds	Icteria virens	yellow-breasted chat	ABPBX24010	None	None	SSC	-	3512036	SAN LUIS OBISPO	Unprocessed	Animals - Birds - Icteridae - Icteria virens
Animals - Birds	Lanius ludovicianus	loggerhead shrike	ABPBR01030	None	None	SSC	-	3512036	SAN LUIS OBISPO	Mapped and Unprocessed	Animals - Birds - Laniidae - Lanius ludovicianus
Animals - Birds	Hydroprogne caspia	Caspian tern	ABNNM08020	None	None	-	-	3512037	MORRO BAY SOUTH	Unprocessed	Animals - Birds - Laridae - Hydroprogne caspia
Animals - Birds	Hydroprogne caspia	Caspian tern	ABNNM08020	None	None	-	-	3512026	PISMO BEACH	Unprocessed	Animals - Birds - Laridae - Hydroprogne caspia
Animals - Birds	Larus californicus	California gull	ABNNM03110	None	None	WL	-	3512026	PISMO BEACH	Unprocessed	Animals - Birds - Laridae - Larus californicus
Animals - Birds	Larus californicus	California gull	ABNNM03110	None	None	WL	-	3512027	PORT SAN LUIS	Unprocessed	Animals - Birds - Laridae - Larus californicus
Animals - Birds	Larus californicus	California gull	ABNNM03110	None	None	WL	-	3512037	MORRO BAY SOUTH	Unprocessed	Animals - Birds - Laridae - Larus californicus
Animals - Birds	Larus californicus	California gull	ABNNM03110	None	None	WL	-	3512047	MORRO BAY NORTH	Unprocessed	Animals - Birds - Laridae - Larus californicus
Animals - Birds	Sternula antillarum browni	California least tern	ABNNM08103	Endangered	Endangered	FP	-	3512037	MORRO BAY SOUTH	Unprocessed	Animals - Birds - Laridae - Sternula antillarum browni
Animals - Birds	Sternula antillarum browni	California least tern	ABNNM08103	Endangered	Endangered	FP	-	3512026	PISMO BEACH	Unprocessed	Animals - Birds - Laridae - Sternula antillarum browni
Animals - Birds	Thalasseus elegans	elegant tern	ABNNM08040	None	None	WL	-	3512026	PISMO BEACH	Unprocessed	Animals - Birds - Laridae - Thalasseus elegans
Animals - Birds	Thalasseus elegans	elegant tern	ABNNM08040	None	None	WL	-	3512027	PORT SAN LUIS	Unprocessed	Animals - Birds - Laridae - Thalasseus elegans
Animals - Birds	Thalasseus elegans	elegant tern	ABNNM08040	None	None	WL	-	3512037	MORRO BAY SOUTH	Unprocessed	Animals - Birds - Laridae - Thalasseus elegans
Animals - Birds	Thalasseus elegans	elegant tern	ABNNM08040	None	None	WL	-	3512047	MORRO BAY NORTH	Unprocessed	Animals - Birds - Laridae - Thalasseus elegans
Animals - Birds	Ammodramus savannarum	grasshopper sparrow	ABPBXA0020	None	None	SSC	-	3512047	MORRO BAY NORTH	Unprocessed	Animals - Birds - Passerellidae - Ammodramus savannarum
Animals - Birds	Ammodramus savannarum	grasshopper sparrow	ABPBXA0020	None	None	SSC	-	3512037	MORRO BAY SOUTH	Unprocessed	Animals - Birds - Passerellidae - Ammodramus savannarum
Animals - Birds	Ammodramus savannarum	grasshopper sparrow	ABPBXA0020	None	None	SSC	-	3512036	SAN LUIS OBISPO	Unprocessed	Animals - Birds - Passerellidae - Ammodramus savannarum
Animals - Birds	Passerculus sandwichensis alaudinus	Bryants savannah sparrow	ABPBX99011	None	None	SSC	-	3512037	MORRO BAY SOUTH	Unprocessed	Animals - Birds - Passerellidae - Passerculus sandwichensis alaudinus
Animals - Birds	Passerculus sandwichensis beldingi	Beldings savannah sparrow	ABPBX99015	None	Endangered	-	-	3512027	PORT SAN LUIS	Unprocessed	Animals - Birds - Passerellidae - Passerculus sandwichensis beldingi
Animals - Birds	Passerculus sandwichensis beldingi	Beldings savannah sparrow	ABPBX99015	None	Endangered	-	-	3512026	PISMO BEACH	Unprocessed	Animals - Birds - Passerellidae - Passerculus sandwichensis beldingi
Animals - Birds	Pelecanus occidentalis californicus	California brown pelican	ABNFC01021	Delisted	Delisted	-	-	3512026	PISMO BEACH	Unprocessed	Animals - Birds - Pelecanidae - Pelecanus occidentalis californicus
Animals - Birds	Pelecanus occidentalis californicus	California brown pelican	ABNFC01021	Delisted	Delisted	-	-	3512027	PORT SAN LUIS	Unprocessed	Animals - Birds - Pelecanidae - Pelecanus occidentalis californicus

Animals - Birds	<i>Pelecanus occidentalis californicus</i>	California brown pelican	ABNFC01021	Delisted	Delisted	-	-	3512037	MORRO BAY SOUTH	Unprocessed	Animals - Birds - Pelecanidae - <i>Pelecanus occidentalis californicus</i>
Animals - Birds	<i>Pelecanus occidentalis californicus</i>	California brown pelican	ABNFC01021	Delisted	Delisted	-	-	3512047	MORRO BAY NORTH	Unprocessed	Animals - Birds - Pelecanidae - <i>Pelecanus occidentalis californicus</i>
Animals - Birds	<i>Nannopterum auritum</i>	double-crested cormorant	ABNFD01020	None	None	WL	-	3512047	MORRO BAY NORTH	Unprocessed	Animals - Birds - Phalacrocoracidae - <i>Nannopterum auritum</i>
Animals - Birds	<i>Nannopterum auritum</i>	double-crested cormorant	ABNFD01020	None	None	WL	-	3512037	MORRO BAY SOUTH	Unprocessed	Animals - Birds - Phalacrocoracidae - <i>Nannopterum auritum</i>
Animals - Birds	<i>Nannopterum auritum</i>	double-crested cormorant	ABNFD01020	None	None	WL	-	3512036	SAN LUIS OBISPO	Unprocessed	Animals - Birds - Phalacrocoracidae - <i>Nannopterum auritum</i>
Animals - Birds	<i>Nannopterum auritum</i>	double-crested cormorant	ABNFD01020	None	None	WL	-	3512027	PORT SAN LUIS	Unprocessed	Animals - Birds - Phalacrocoracidae - <i>Nannopterum auritum</i>
Animals - Birds	<i>Nannopterum auritum</i>	double-crested cormorant	ABNFD01020	None	None	WL	-	3512026	PISMO BEACH	Unprocessed	Animals - Birds - Phalacrocoracidae - <i>Nannopterum auritum</i>
Animals - Birds	<i>Laterallus jamaicensis coturniculus</i>	California black rail	ABNME03041	None	Threatened	FP	-	3512037	MORRO BAY SOUTH	Mapped	Animals - Birds - Rallidae - <i>Laterallus jamaicensis coturniculus</i>
Animals - Birds	<i>Rallus obsoletus obsoletus</i>	California Ridgways rail	ABNME05011	Endangered	Endangered	FP	-	3512037	MORRO BAY SOUTH	Mapped	Animals - Birds - Rallidae - <i>Rallus obsoletus obsoletus</i>
Animals - Birds	<i>Numenius americanus</i>	long-billed curlew	ABNNF07070	None	None	WL	-	3512037	MORRO BAY SOUTH	Unprocessed	Animals - Birds - Scolopacidae - <i>Numenius americanus</i>
Animals - Birds	<i>Athene cunicularia</i>	burrowing owl	ABNSB10010	None	Candidate Endangered	SSC	-	3512037	MORRO BAY SOUTH	Unprocessed	Animals - Birds - Strigidae - <i>Athene cunicularia</i>
Animals - Birds	<i>Athene cunicularia</i>	burrowing owl	ABNSB10010	None	Candidate Endangered	SSC	-	3512047	MORRO BAY NORTH	Unprocessed	Animals - Birds - Strigidae - <i>Athene cunicularia</i>
Animals - Birds	<i>Athene cunicularia</i>	burrowing owl	ABNSB10010	None	Candidate Endangered	SSC	-	3512036	SAN LUIS OBISPO	Mapped and Unprocessed	Animals - Birds - Strigidae - <i>Athene cunicularia</i>
Animals - Birds	<i>Athene cunicularia</i>	burrowing owl	ABNSB10010	None	Candidate Endangered	SSC	-	3512026	PISMO BEACH	Mapped and Unprocessed	Animals - Birds - Strigidae - <i>Athene cunicularia</i>
Animals - Birds	<i>Athene cunicularia</i>	burrowing owl	ABNSB10010	None	Candidate Endangered	SSC	-	3512027	PORT SAN LUIS	Mapped	Animals - Birds - Strigidae - <i>Athene cunicularia</i>
Animals - Birds	<i>Strix occidentalis occidentalis</i>	California Spotted Owl	ABNSB12013	Proposed Endangered; Proposed Threatened	None	SSC	-	3512026	PISMO BEACH	Mapped	Animals - Birds - Strigidae - <i>Strix occidentalis occidentalis</i>
Animals - Birds	<i>Strix occidentalis occidentalis</i>	California Spotted Owl	ABNSB12013	Proposed Endangered; Proposed Threatened	None	SSC	-	3512027	PORT SAN LUIS	Mapped	Animals - Birds - Strigidae - <i>Strix occidentalis occidentalis</i>
Animals - Birds	<i>Strix occidentalis occidentalis</i>	California Spotted Owl	ABNSB12013	Proposed Endangered; Proposed Threatened	None	SSC	-	3512037	MORRO BAY SOUTH	Mapped	Animals - Birds - Strigidae - <i>Strix occidentalis occidentalis</i>
Animals - Birds	<i>Strix occidentalis occidentalis</i>	California Spotted Owl	ABNSB12013	Proposed Endangered; Proposed Threatened	None	SSC	-	3512046	ATASCADERO	Mapped	Animals - Birds - Strigidae - <i>Strix occidentalis occidentalis</i>
Animals - Crustaceans	<i>Branchinecta lynchi</i>	vernal pool fairy shrimp	ICBRA03030	Threatened	None	-	-	3512036	SAN LUIS OBISPO	Mapped	Animals - Crustaceans - Branchinectidae - <i>Branchinecta lynchi</i>
Animals - Crustaceans	<i>Branchinecta lynchi</i>	vernal pool fairy shrimp	ICBRA03030	Threatened	None	-	-	3512026	PISMO BEACH	Mapped	Animals - Crustaceans - Branchinectidae - <i>Branchinecta lynchi</i>
Animals - Crustaceans	<i>Linderiella occidentalis</i>	California linderiella	ICBRA06010	None	None	-	-	3512036	SAN LUIS OBISPO	Mapped	Animals - Crustaceans - Chirocephalidae - <i>Linderiella occidentalis</i>
Animals - Fish	<i>Hesperoleucus venustus subditus</i>	southern coastal roach	AFCJB19032	None	None	SSC	-	3512046	ATASCADERO	Unprocessed	Animals - Fish - Cyprinidae - <i>Hesperoleucus venustus subditus</i>
Animals - Fish	<i>Eucyclogobius newberryi</i>	tidewater goby	AFCQN04010	Endangered	None	SSC	-	3512037	MORRO BAY SOUTH	Mapped and Unprocessed	Animals - Fish - Gobiidae - <i>Eucyclogobius newberryi</i>
Animals - Fish	<i>Eucyclogobius newberryi</i>	tidewater goby	AFCQN04010	Endangered	None	SSC	-	3512047	MORRO BAY NORTH	Mapped and Unprocessed	Animals - Fish - Gobiidae - <i>Eucyclogobius newberryi</i>
Animals - Fish	<i>Eucyclogobius newberryi</i>	tidewater goby	AFCQN04010	Endangered	None	SSC	-	3512027	PORT SAN LUIS	Mapped	Animals - Fish - Gobiidae -

											Eucyclogobius newberryi
Animals - Fish	Eucyclogobius newberryi	tidewater goby	AFCQN04010	Endangered	None	SSC	-	3512026	PISMO BEACH	Mapped and Unprocessed	Animals - Fish - Gobiidae - Eucyclogobius newberryi
Animals - Fish	Entosphenus tridentatus	Pacific lamprey	AFBAA02100	None	None	SSC	-	3512036	SAN LUIS OBISPO	Unprocessed	Animals - Fish - Petromyzontidae - Entosphenus tridentatus
Animals - Fish	Oncorhynchus mykiss irideus pop. 9	steelhead - south-central California coast DPS	AFCHA0209H	Threatened	None	SSC	-	3512036	SAN LUIS OBISPO	Mapped and Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus pop. 9
Animals - Fish	Oncorhynchus mykiss irideus pop. 9	steelhead - south-central California coast DPS	AFCHA0209H	Threatened	None	SSC	-	3512047	MORRO BAY NORTH	Mapped and Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus pop. 9
Animals - Fish	Oncorhynchus mykiss irideus pop. 9	steelhead - south-central California coast DPS	AFCHA0209H	Threatened	None	SSC	-	3512037	MORRO BAY SOUTH	Mapped and Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus pop. 9
Animals - Fish	Oncorhynchus mykiss irideus pop. 9	steelhead - south-central California coast DPS	AFCHA0209H	Threatened	None	SSC	-	3512046	ATASCADERO	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus pop. 9
Animals - Fish	Oncorhynchus mykiss irideus pop. 9	steelhead - south-central California coast DPS	AFCHA0209H	Threatened	None	SSC	-	3512026	PISMO BEACH	Mapped and Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus pop. 9
Animals - Fish	Oncorhynchus mykiss irideus pop. 9	steelhead - south-central California coast DPS	AFCHA0209H	Threatened	None	SSC	-	3512027	PORT SAN LUIS	Mapped and Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus pop. 9
Animals - Insects	Bombus caliginosus	obscure bumble bee	IIHYM24380	None	None	-	-	3512026	PISMO BEACH	Mapped	Animals - Insects - Apidae - Bombus caliginosus
Animals - Insects	Bombus caliginosus	obscure bumble bee	IIHYM24380	None	None	-	-	3512046	ATASCADERO	Mapped and Unprocessed	Animals - Insects - Apidae - Bombus caliginosus
Animals - Insects	Bombus caliginosus	obscure bumble bee	IIHYM24380	None	None	-	-	3512047	MORRO BAY NORTH	Mapped	Animals - Insects - Apidae - Bombus caliginosus
Animals - Insects	Bombus caliginosus	obscure bumble bee	IIHYM24380	None	None	-	-	3512036	SAN LUIS OBISPO	Unprocessed	Animals - Insects - Apidae - Bombus caliginosus
Animals - Insects	Bombus caliginosus	obscure bumble bee	IIHYM24380	None	None	-	-	3512037	MORRO BAY SOUTH	Mapped and Unprocessed	Animals - Insects - Apidae - Bombus caliginosus
Animals - Insects	Bombus crotchii	Crotchs bumble bee	IIHYM24480	None	Candidate Endangered	-	-	3512037	MORRO BAY SOUTH	Unprocessed	Animals - Insects - Apidae - Bombus crotchii
Animals - Insects	Bombus crotchii	Crotchs bumble bee	IIHYM24480	None	Candidate Endangered	-	-	3512036	SAN LUIS OBISPO	Mapped and Unprocessed	Animals - Insects - Apidae - Bombus crotchii
Animals - Insects	Bombus crotchii	Crotchs bumble bee	IIHYM24480	None	Candidate Endangered	-	-	3512046	ATASCADERO	Mapped and Unprocessed	Animals - Insects - Apidae - Bombus crotchii
Animals - Insects	Bombus crotchii	Crotchs bumble bee	IIHYM24480	None	Candidate Endangered	-	-	3512026	PISMO BEACH	Unprocessed	Animals - Insects - Apidae - Bombus crotchii
Animals - Insects	Bombus occidentalis	western bumble bee	IIHYM24252	None	Candidate Endangered	-	-	3512026	PISMO BEACH	Mapped	Animals - Insects - Apidae - Bombus occidentalis
Animals - Insects	Cicindela hirticollis gravida	sandy beach tiger beetle	IICOL02101	None	None	-	-	3512026	PISMO BEACH	Mapped	Animals - Insects - Carabidae - Cicindela hirticollis gravida
Animals - Insects	Cicindela hirticollis gravida	sandy beach tiger beetle	IICOL02101	None	None	-	-	3512047	MORRO BAY NORTH	Mapped	Animals - Insects - Carabidae - Cicindela hirticollis gravida
Animals - Insects	Cicindela hirticollis gravida	sandy beach tiger beetle	IICOL02101	None	None	-	-	3512037	MORRO BAY SOUTH	Mapped and Unprocessed	Animals - Insects - Carabidae - Cicindela hirticollis gravida
Animals - Insects	Atractelmis wawona	Wawona riffle beetle	IICOL58010	None	None	-	-	3512047	MORRO BAY NORTH	Mapped	Animals - Insects - Elmidae - Atractelmis wawona
Animals - Insects	Atractelmis wawona	Wawona riffle beetle	IICOL58010	None	None	-	-	3512026	PISMO BEACH	Mapped	Animals - Insects - Elmidae - Atractelmis wawona
Animals - Insects	Icaricia icarioides moroensis	Morro Bay blue butterfly	IILEPG801B	None	None	-	-	3512027	PORT SAN LUIS	Mapped	Animals - Insects - Lycaenidae - Icaricia icarioides moroensis
Animals - Insects	Icaricia icarioides moroensis	Morro Bay blue butterfly	IILEPG801B	None	None	-	-	3512047	MORRO BAY NORTH	Mapped	Animals - Insects - Lycaenidae - Icaricia icarioides moroensis
Animals - Insects	Icaricia icarioides moroensis	Morro Bay blue butterfly	IILEPG801B	None	None	-	-	3512037	MORRO BAY SOUTH	Mapped and Unprocessed	Animals - Insects - Lycaenidae - Icaricia icarioides moroensis

Animals - Insects	Danaus plexippus plexippus pop. 1	monarch - California overwintering population	IILEPP2012	Candidate	None	-	-	3512037	MORRO BAY SOUTH	Mapped and Unprocessed	Animals - Insects - Nymphalidae - Danaus plexippus plexippus pop. 1
Animals - Insects	Danaus plexippus plexippus pop. 1	monarch - California overwintering population	IILEPP2012	Candidate	None	-	-	3512036	SAN LUIS OBISPO	Mapped and Unprocessed	Animals - Insects - Nymphalidae - Danaus plexippus plexippus pop. 1
Animals - Insects	Danaus plexippus plexippus pop. 1	monarch - California overwintering population	IILEPP2012	Candidate	None	-	-	3512047	MORRO BAY NORTH	Mapped and Unprocessed	Animals - Insects - Nymphalidae - Danaus plexippus plexippus pop. 1
Animals - Insects	Danaus plexippus plexippus pop. 1	monarch - California overwintering population	IILEPP2012	Candidate	None	-	-	3512026	PISMO BEACH	Mapped and Unprocessed	Animals - Insects - Nymphalidae - Danaus plexippus plexippus pop. 1
Animals - Insects	Polyphylla morroensis	Morro Bay June beetle	IICOL68200	None	None	-	-	3512037	MORRO BAY SOUTH	Mapped and Unprocessed	Animals - Insects - Scarabaeidae - Polyphylla morroensis
Animals - Insects	Polyphylla nubila	Atascadero June beetle	IICOL68040	None	None	-	-	3512046	ATASCADERO	Mapped	Animals - Insects - Scarabaeidae - Polyphylla nubila
Animals - Insects	Polyphylla nubila	Atascadero June beetle	IICOL68040	None	None	-	-	3512036	SAN LUIS OBISPO	Mapped	Animals - Insects - Scarabaeidae - Polyphylla nubila
Animals - Insects	Coelus globosus	globose dune beetle	IICOL4A010	None	None	-	-	3512026	PISMO BEACH	Mapped	Animals - Insects - Tenebrionidae - Coelus globosus
Animals - Insects	Coelus globosus	globose dune beetle	IICOL4A010	None	None	-	-	3512047	MORRO BAY NORTH	Mapped	Animals - Insects - Tenebrionidae - Coelus globosus
Animals - Insects	Coelus globosus	globose dune beetle	IICOL4A010	None	None	-	-	3512037	MORRO BAY SOUTH	Mapped	Animals - Insects - Tenebrionidae - Coelus globosus
Animals - Mammals	Vulpes macrotis mutica	San Joaquin kit fox	AMAJA03041	Endangered	Threatened	-	-	3512046	ATASCADERO	Unprocessed	Animals - Mammals - Canidae - Vulpes macrotis mutica
Animals - Mammals	Neotoma lepida intermedia	San Diego desert woodrat	AMAFF08041	None	None	SSC	-	3512037	MORRO BAY SOUTH	Mapped	Animals - Mammals - Cricetidae - Neotoma lepida intermedia
Animals - Mammals	Neotoma lepida intermedia	San Diego desert woodrat	AMAFF08041	None	None	SSC	-	3512036	SAN LUIS OBISPO	Unprocessed	Animals - Mammals - Cricetidae - Neotoma lepida intermedia
Animals - Mammals	Neotoma lepida intermedia	San Diego desert woodrat	AMAFF08041	None	None	SSC	-	3512027	PORT SAN LUIS	Mapped	Animals - Mammals - Cricetidae - Neotoma lepida intermedia
Animals - Mammals	Neotoma macrotis luciana	Monterey dusky-footed woodrat	AMAFF08083	None	None	SSC	-	3512036	SAN LUIS OBISPO	Unprocessed	Animals - Mammals - Cricetidae - Neotoma macrotis luciana
Animals - Mammals	Dipodomys heermanni arenae	Lompoc kangaroo rat	AMAFD03064	None	None	-	-	3512026	PISMO BEACH	Unprocessed	Animals - Mammals - Heteromyidae - Dipodomys heermanni arenae
Animals - Mammals	Dipodomys heermanni morroensis	Morro Bay kangaroo rat	AMAFD03063	Endangered	Endangered	FP	-	3512037	MORRO BAY SOUTH	Mapped	Animals - Mammals - Heteromyidae - Dipodomys heermanni morroensis
Animals - Mammals	Eumops perotis californicus	western mastiff bat	AMACD02011	None	None	SSC	-	3512036	SAN LUIS OBISPO	Mapped	Animals - Mammals - Molossidae - Eumops perotis californicus
Animals - Mammals	Nyctinomops macrotis	big free-tailed bat	AMACD04020	None	None	SSC	-	3512037	MORRO BAY SOUTH	Mapped and Unprocessed	Animals - Mammals - Molossidae - Nyctinomops macrotis
Animals - Mammals	Enhydra lutris nereis	southern sea otter	AMAJF09012	Threatened	None	FP	-	3512047	MORRO BAY NORTH	Unprocessed	Animals - Mammals - Mustelidae - Enhydra lutris nereis
Animals - Mammals	Enhydra lutris nereis	southern sea otter	AMAJF09012	Threatened	None	FP	-	3512037	MORRO BAY SOUTH	Unprocessed	Animals - Mammals - Mustelidae - Enhydra lutris nereis
Animals - Mammals	Enhydra lutris nereis	southern sea otter	AMAJF09012	Threatened	None	FP	-	3512026	PISMO BEACH	Unprocessed	Animals - Mammals - Mustelidae - Enhydra lutris nereis
Animals - Mammals	Enhydra lutris nereis	southern sea otter	AMAJF09012	Threatened	None	FP	-	3512027	PORT SAN LUIS	Unprocessed	Animals - Mammals - Mustelidae - Enhydra lutris nereis
Animals - Mammals	Taxidea taxus	American badger	AMAJF04010	None	None	SSC	-	3512026	PISMO BEACH	Mapped and Unprocessed	Animals - Mammals - Mustelidae - Taxidea taxus

Animals - Mammals	Taxidea taxus	American badger	AMAJF04010	None	None	SSC	-	3512037	MORRO BAY SOUTH	Mapped and Unprocessed	Animals - Mammals - Mustelidae - Taxidea taxus
Animals - Mammals	Taxidea taxus	American badger	AMAJF04010	None	None	SSC	-	3512036	SAN LUIS OBISPO	Mapped and Unprocessed	Animals - Mammals - Mustelidae - Taxidea taxus
Animals - Mammals	Taxidea taxus	American badger	AMAJF04010	None	None	SSC	-	3512047	MORRO BAY NORTH	Unprocessed	Animals - Mammals - Mustelidae - Taxidea taxus
Animals - Mammals	Taxidea taxus	American badger	AMAJF04010	None	None	SSC	-	3512046	ATASCADERO	Unprocessed	Animals - Mammals - Mustelidae - Taxidea taxus
Animals - Mammals	Callorhinus ursinus	northern fur-seal	AMAJC01010	None	None	-	-	3512047	MORRO BAY NORTH	Unprocessed	Animals - Mammals - Otariidae - Callorhinus ursinus
Animals - Mammals	Callorhinus ursinus	northern fur-seal	AMAJC01010	None	None	-	-	3512037	MORRO BAY SOUTH	Unprocessed	Animals - Mammals - Otariidae - Callorhinus ursinus
Animals - Mammals	Callorhinus ursinus	northern fur-seal	AMAJC01010	None	None	-	-	3512027	PORT SAN LUIS	Unprocessed	Animals - Mammals - Otariidae - Callorhinus ursinus
Animals - Mammals	Eumetopias jubatus	Steller sea lion	AMAJC03010	Delisted	None	-	-	3512027	PORT SAN LUIS	Mapped	Animals - Mammals - Otariidae - Eumetopias jubatus
Animals - Mammals	Antrozous pallidus	pallid bat	AMACC10010	None	None	SSC	-	3512036	SAN LUIS OBISPO	Mapped and Unprocessed	Animals - Mammals - Vespertilionidae - Antrozous pallidus
Animals - Mammals	Antrozous pallidus	pallid bat	AMACC10010	None	None	SSC	-	3512047	MORRO BAY NORTH	Mapped	Animals - Mammals - Vespertilionidae - Antrozous pallidus
Animals - Mammals	Antrozous pallidus	pallid bat	AMACC10010	None	None	SSC	-	3512046	ATASCADERO	Mapped	Animals - Mammals - Vespertilionidae - Antrozous pallidus
Animals - Mammals	Antrozous pallidus	pallid bat	AMACC10010	None	None	SSC	-	3512037	MORRO BAY SOUTH	Mapped and Unprocessed	Animals - Mammals - Vespertilionidae - Antrozous pallidus
Animals - Mammals	Corynorhinus townsendii	Townsend's big-eared bat	AMACC08010	None	None	SSC	-	3512037	MORRO BAY SOUTH	Mapped	Animals - Mammals - Vespertilionidae - Corynorhinus townsendii
Animals - Mammals	Corynorhinus townsendii	Townsend's big-eared bat	AMACC08010	None	None	SSC	-	3512036	SAN LUIS OBISPO	Mapped and Unprocessed	Animals - Mammals - Vespertilionidae - Corynorhinus townsendii
Animals - Mammals	Corynorhinus townsendii	Townsend's big-eared bat	AMACC08010	None	None	SSC	-	3512026	PISMO BEACH	Mapped and Unprocessed	Animals - Mammals - Vespertilionidae - Corynorhinus townsendii
Animals - Mammals	Myotis yumanensis	Yuma myotis	AMACC01020	None	None	-	-	3512036	SAN LUIS OBISPO	Unprocessed	Animals - Mammals - Vespertilionidae - Myotis yumanensis
Animals - Mammals	Myotis yumanensis	Yuma myotis	AMACC01020	None	None	-	-	3512037	MORRO BAY SOUTH	Unprocessed	Animals - Mammals - Vespertilionidae - Myotis yumanensis
Animals - Mollusks	Haliotis kamtschatkana	pinto abalone	IMGASV2040	None	None	-	-	3512026	PISMO BEACH	Unprocessed	Animals - Mollusks - Haliotidae - Haliotis kamtschatkana
Animals - Mollusks	Haliotis kamtschatkana	pinto abalone	IMGASV2040	None	None	-	-	3512027	PORT SAN LUIS	Unprocessed	Animals - Mollusks - Haliotidae - Haliotis kamtschatkana
Animals - Mollusks	Helminthoglypta walkeriana	Morro shoulderband	IMGASC2510	Threatened	None	-	-	3512047	MORRO BAY NORTH	Mapped and Unprocessed	Animals - Mollusks - Helminthoglyptidae - Helminthoglypta walkeriana
Animals - Mollusks	Helminthoglypta walkeriana	Morro shoulderband	IMGASC2510	Threatened	None	-	-	3512036	SAN LUIS OBISPO	Unprocessed	Animals - Mollusks - Helminthoglyptidae - Helminthoglypta walkeriana
Animals - Mollusks	Helminthoglypta walkeriana	Morro shoulderband	IMGASC2510	Threatened	None	-	-	3512037	MORRO BAY SOUTH	Mapped and Unprocessed	Animals - Mollusks - Helminthoglyptidae - Helminthoglypta walkeriana
Animals - Mollusks	Pyrgulopsis taylori	San Luis Obispo pyrg	IMGASJ0A50	None	None	-	-	3512036	SAN LUIS OBISPO	Mapped and Unprocessed	Animals - Mollusks - Hydrobiidae - Pyrgulopsis taylori
Animals - Mollusks	Pyrgulopsis taylori	San Luis Obispo pyrg	IMGASJ0A50	None	None	-	-	3512047	MORRO BAY NORTH	Mapped and Unprocessed	Animals - Mollusks - Hydrobiidae - Pyrgulopsis taylori
Animals - Mollusks	Tryonia imitator	mimic tryonia (=California	IMGASJ7040	None	None	-	-	3512037	MORRO BAY SOUTH	Mapped	Animals - Mollusks - Hydrobiidae - Tryonia imitator

		brackishwater snail)									
Animals - Mollusks	Anodonta californiensis	California floater	IMBIV04220	None	None	-	-	3512036	SAN LUIS OBISPO	Unprocessed	Animals - Mollusks - Unionidae - Anodonta californiensis
Animals - Reptiles	Anniella pulchra	Northern California legless lizard	ARACC01020	None	None	SSC	-	3512036	SAN LUIS OBISPO	Mapped	Animals - Reptiles - Anniellidae - Anniella pulchra
Animals - Reptiles	Anniella pulchra	Northern California legless lizard	ARACC01020	None	None	SSC	-	3512037	MORRO BAY SOUTH	Mapped and Unprocessed	Animals - Reptiles - Anniellidae - Anniella pulchra
Animals - Reptiles	Anniella pulchra	Northern California legless lizard	ARACC01020	None	None	SSC	-	3512047	MORRO BAY NORTH	Mapped	Animals - Reptiles - Anniellidae - Anniella pulchra
Animals - Reptiles	Anniella pulchra	Northern California legless lizard	ARACC01020	None	None	SSC	-	3512046	ATASCADERO	Mapped	Animals - Reptiles - Anniellidae - Anniella pulchra
Animals - Reptiles	Anniella pulchra	Northern California legless lizard	ARACC01020	None	None	SSC	-	3512026	PISMO BEACH	Mapped	Animals - Reptiles - Anniellidae - Anniella pulchra
Animals - Reptiles	Actinemys pallida	southwestern pond turtle	ARAAD02032	Proposed Threatened	None	SSC	-	3512026	PISMO BEACH	Mapped and Unprocessed	Animals - Reptiles - Emydidae - Actinemys pallida
Animals - Reptiles	Actinemys pallida	southwestern pond turtle	ARAAD02032	Proposed Threatened	None	SSC	-	3512046	ATASCADERO	Mapped and Unprocessed	Animals - Reptiles - Emydidae - Actinemys pallida
Animals - Reptiles	Actinemys pallida	southwestern pond turtle	ARAAD02032	Proposed Threatened	None	SSC	-	3512047	MORRO BAY NORTH	Mapped and Unprocessed	Animals - Reptiles - Emydidae - Actinemys pallida
Animals - Reptiles	Actinemys pallida	southwestern pond turtle	ARAAD02032	Proposed Threatened	None	SSC	-	3512037	MORRO BAY SOUTH	Unprocessed	Animals - Reptiles - Emydidae - Actinemys pallida
Animals - Reptiles	Actinemys pallida	southwestern pond turtle	ARAAD02032	Proposed Threatened	None	SSC	-	3512036	SAN LUIS OBISPO	Mapped and Unprocessed	Animals - Reptiles - Emydidae - Actinemys pallida
Animals - Reptiles	Thamnophis hammondi	two-striped gartersnake	ARADB36160	None	None	SSC	-	3512036	SAN LUIS OBISPO	Unprocessed	Animals - Reptiles - Natricidae - Thamnophis hammondi
Animals - Reptiles	Thamnophis hammondi	two-striped gartersnake	ARADB36160	None	None	SSC	-	3512037	MORRO BAY SOUTH	Unprocessed	Animals - Reptiles - Natricidae - Thamnophis hammondi
Animals - Reptiles	Phrynosoma blainvillii	coast horned lizard	ARACF12100	None	None	SSC	-	3512037	MORRO BAY SOUTH	Mapped and Unprocessed	Animals - Reptiles - Phrynosomatidae - Phrynosoma blainvillii
Animals - Reptiles	Phrynosoma blainvillii	coast horned lizard	ARACF12100	None	None	SSC	-	3512036	SAN LUIS OBISPO	Mapped	Animals - Reptiles - Phrynosomatidae - Phrynosoma blainvillii
Animals - Reptiles	Phrynosoma blainvillii	coast horned lizard	ARACF12100	None	None	SSC	-	3512047	MORRO BAY NORTH	Mapped	Animals - Reptiles - Phrynosomatidae - Phrynosoma blainvillii
Animals - Reptiles	Phrynosoma blainvillii	coast horned lizard	ARACF12100	None	None	SSC	-	3512046	ATASCADERO	Unprocessed	Animals - Reptiles - Phrynosomatidae - Phrynosoma blainvillii
Animals - Reptiles	Phrynosoma blainvillii	coast horned lizard	ARACF12100	None	None	SSC	-	3512026	PISMO BEACH	Mapped	Animals - Reptiles - Phrynosomatidae - Phrynosoma blainvillii
Community - Terrestrial	Central Dune Scrub	Central Dune Scrub	CTT21320CA	None	None	-	-	3512037	MORRO BAY SOUTH	Mapped	Community - Terrestrial - Central Dune Scrub
Community - Terrestrial	Central Foredunes	Central Foredunes	CTT21220CA	None	None	-	-	3512026	PISMO BEACH	Mapped	Community - Terrestrial - Central Foredunes
Community - Terrestrial	Central Maritime Chaparral	Central Maritime Chaparral	CTT37C20CA	None	None	-	-	3512026	PISMO BEACH	Mapped	Community - Terrestrial - Central Maritime Chaparral
Community - Terrestrial	Central Maritime Chaparral	Central Maritime Chaparral	CTT37C20CA	None	None	-	-	3512037	MORRO BAY SOUTH	Mapped	Community - Terrestrial - Central Maritime Chaparral
Community - Terrestrial	Coastal and Valley Freshwater Marsh	Coastal and Valley Freshwater Marsh	CTT52410CA	None	None	-	-	3512037	MORRO BAY SOUTH	Mapped	Community - Terrestrial - Coastal and Valley Freshwater Marsh
Community - Terrestrial	Coastal and Valley Freshwater Marsh	Coastal and Valley Freshwater Marsh	CTT52410CA	None	None	-	-	3512036	SAN LUIS OBISPO	Mapped	Community - Terrestrial - Coastal and Valley Freshwater Marsh
Community - Terrestrial	Coastal and Valley Freshwater Marsh	Coastal and Valley Freshwater Marsh	CTT52410CA	None	None	-	-	3512026	PISMO BEACH	Mapped	Community - Terrestrial - Coastal and Valley Freshwater Marsh
Community - Terrestrial	Coastal Brackish Marsh	Coastal Brackish Marsh	CTT52200CA	None	None	-	-	3512037	MORRO BAY SOUTH	Mapped	Community - Terrestrial - Coastal Brackish Marsh
Community - Terrestrial	Northern Coastal Salt Marsh	Northern Coastal Salt Marsh	CTT52110CA	None	None	-	-	3512037	MORRO BAY SOUTH	Mapped	Community - Terrestrial - Northern Coastal Salt Marsh
Community - Terrestrial	Northern Interior Cypress Forest	Northern Interior Cypress Forest	CTT83220CA	None	None	-	-	3512036	SAN LUIS OBISPO	Mapped	Community - Terrestrial - Northern Interior Cypress Forest
Community - Terrestrial	Northern Interior Cypress Forest	Northern Interior Cypress Forest	CTT83220CA	None	None	-	-	3512046	ATASCADERO	Mapped	Community - Terrestrial -

											Northern Interior Cypress Forest
Community - Terrestrial	Serpentine Bunchgrass	Serpentine Bunchgrass	CTT42130CA	None	None	-	-	3512036	SAN LUIS OBISPO	Mapped	Community - Terrestrial - Serpentine Bunchgrass
Community - Terrestrial	Valley Needlegrass Grassland	Valley Needlegrass Grassland	CTT42110CA	None	None	-	-	3512037	MORRO BAY SOUTH	Mapped	Community - Terrestrial - Valley Needlegrass Grassland
Plants - Lichens	Sulcaria isidiifera	splitting yarn lichen	NLTEST0020	None	None	-	1B.1	3512037	MORRO BAY SOUTH	Mapped	Plants - Lichens - Alectoriaceae - Sulcaria isidiifera
Plants - Lichens	Sulcaria spiralis	twisted horsehair lichen	NLT0042560	None	None	-	1B.2	3512037	MORRO BAY SOUTH	Mapped	Plants - Lichens - Alectoriaceae - Sulcaria spiralis
Plants - Lichens	Sulcaria spiralis	twisted horsehair lichen	NLT0042560	None	None	-	1B.2	3512027	PORT SAN LUIS	Mapped	Plants - Lichens - Alectoriaceae - Sulcaria spiralis
Plants - Lichens	Cladonia firma	popcorn lichen	NLT0008460	None	None	-	2B.1	3512037	MORRO BAY SOUTH	Mapped and Unprocessed	Plants - Lichens - Cladoniaceae - Cladonia firma
Plants - Vascular	Chlorogalum pomeridianum var. minus	dwarf soaproot	PMLIL0G042	None	None	-	1B.2	3512037	MORRO BAY SOUTH	Mapped	Plants - Vascular - Agavaceae - Chlorogalum pomeridianum var. minus
Plants - Vascular	Chlorogalum pomeridianum var. minus	dwarf soaproot	PMLIL0G042	None	None	-	1B.2	3512036	SAN LUIS OBISPO	Mapped	Plants - Vascular - Agavaceae - Chlorogalum pomeridianum var. minus
Plants - Vascular	Chlorogalum pomeridianum var. minus	dwarf soaproot	PMLIL0G042	None	None	-	1B.2	3512027	PORT SAN LUIS	Mapped	Plants - Vascular - Agavaceae - Chlorogalum pomeridianum var. minus
Plants - Vascular	Chlorogalum pomeridianum var. minus	dwarf soaproot	PMLIL0G042	None	None	-	1B.2	3512026	PISMO BEACH	Mapped	Plants - Vascular - Agavaceae - Chlorogalum pomeridianum var. minus
Plants - Vascular	Eryngium aristulatum var. hooveri	Hoovers button-celery	PDAP10Z043	None	None	-	1B.1	3512026	PISMO BEACH	Mapped and Unprocessed	Plants - Vascular - Apiaceae - Eryngium aristulatum var. hooveri
Plants - Vascular	Eryngium aristulatum var. hooveri	Hoovers button-celery	PDAP10Z043	None	None	-	1B.1	3512036	SAN LUIS OBISPO	Mapped	Plants - Vascular - Apiaceae - Eryngium aristulatum var. hooveri
Plants - Vascular	Lomatium parvifolium	small-leaved lomatium	PDAP11B1F0	None	None	-	4.2	3512036	SAN LUIS OBISPO	Unprocessed	Plants - Vascular - Apiaceae - Lomatium parvifolium
Plants - Vascular	Lomatium parvifolium	small-leaved lomatium	PDAP11B1F0	None	None	-	4.2	3512037	MORRO BAY SOUTH	Unprocessed	Plants - Vascular - Apiaceae - Lomatium parvifolium
Plants - Vascular	Lomatium parvifolium	small-leaved lomatium	PDAP11B1F0	None	None	-	4.2	3512046	ATASCADERO	Unprocessed	Plants - Vascular - Apiaceae - Lomatium parvifolium
Plants - Vascular	Lomatium parvifolium	small-leaved lomatium	PDAP11B1F0	None	None	-	4.2	3512026	PISMO BEACH	Unprocessed	Plants - Vascular - Apiaceae - Lomatium parvifolium
Plants - Vascular	Perideridia pringlei	adobe yampah	PDAP11N0D0	None	None	-	4.3	3512026	PISMO BEACH	Unprocessed	Plants - Vascular - Apiaceae - Perideridia pringlei
Plants - Vascular	Perideridia pringlei	adobe yampah	PDAP11N0D0	None	None	-	4.3	3512036	SAN LUIS OBISPO	Unprocessed	Plants - Vascular - Apiaceae - Perideridia pringlei
Plants - Vascular	Sanicula hoffmannii	Hoffmanns sanicle	PDAP11Z090	None	None	-	4.3	3512036	SAN LUIS OBISPO	Unprocessed	Plants - Vascular - Apiaceae - Sanicula hoffmannii
Plants - Vascular	Sanicula hoffmannii	Hoffmanns sanicle	PDAP11Z090	None	None	-	4.3	3512037	MORRO BAY SOUTH	Unprocessed	Plants - Vascular - Apiaceae - Sanicula hoffmannii
Plants - Vascular	Sanicula hoffmannii	Hoffmanns sanicle	PDAP11Z090	None	None	-	4.3	3512026	PISMO BEACH	Unprocessed	Plants - Vascular - Apiaceae - Sanicula hoffmannii
Plants - Vascular	Sanicula hoffmannii	Hoffmanns sanicle	PDAP11Z090	None	None	-	4.3	3512027	PORT SAN LUIS	Unprocessed	Plants - Vascular - Apiaceae - Sanicula hoffmannii
Plants - Vascular	Sanicula maritima	adobe sanicle	PDAP11Z0D0	None	Rare	-	1B.1	3512036	SAN LUIS OBISPO	Mapped and Unprocessed	Plants - Vascular - Apiaceae - Sanicula maritima
Plants - Vascular	Centromadia parryi ssp. congdonii	Congdons tarplant	PDAST4R0P1	None	None	-	1B.1	3512036	SAN LUIS OBISPO	Mapped	Plants - Vascular - Asteraceae - Centromadia parryi ssp. congdonii
Plants - Vascular	Centromadia parryi ssp. congdonii	Congdons tarplant	PDAST4R0P1	None	None	-	1B.1	3512026	PISMO BEACH	Mapped and Unprocessed	Plants - Vascular - Asteraceae - Centromadia parryi ssp. congdonii
Plants - Vascular	Cirsium fontinale var. obispoense	Chorro Creek bog thistle	PDAST2E162	Endangered	Endangered	-	1B.2	3512026	PISMO BEACH	Mapped and Unprocessed	Plants - Vascular - Asteraceae -

											Cirsium fontinale var. obispoense
Plants - Vascular	Cirsium fontinale var. obispoense	Chorro Creek bog thistle	PDAST2E162	Endangered	Endangered	-	1B.2	3512036	SAN LUIS OBISPO	Mapped and Unprocessed	Plants - Vascular - Asteraceae - Cirsium fontinale var. obispoense
Plants - Vascular	Cirsium fontinale var. obispoense	Chorro Creek bog thistle	PDAST2E162	Endangered	Endangered	-	1B.2	3512037	MORRO BAY SOUTH	Mapped	Plants - Vascular - Asteraceae - Cirsium fontinale var. obispoense
Plants - Vascular	Cirsium fontinale var. obispoense	Chorro Creek bog thistle	PDAST2E162	Endangered	Endangered	-	1B.2	3512046	ATASCADERO	Mapped	Plants - Vascular - Asteraceae - Cirsium fontinale var. obispoense
Plants - Vascular	Cirsium fontinale var. obispoense	Chorro Creek bog thistle	PDAST2E162	Endangered	Endangered	-	1B.2	3512047	MORRO BAY NORTH	Mapped	Plants - Vascular - Asteraceae - Cirsium fontinale var. obispoense
Plants - Vascular	Cirsium occidentale var. lucianum	Cuesta Ridge thistle	PDAST2E1Z6	None	None	-	1B.2	3512047	MORRO BAY NORTH	Mapped	Plants - Vascular - Asteraceae - Cirsium occidentale var. lucianum
Plants - Vascular	Cirsium occidentale var. lucianum	Cuesta Ridge thistle	PDAST2E1Z6	None	None	-	1B.2	3512046	ATASCADERO	Mapped	Plants - Vascular - Asteraceae - Cirsium occidentale var. lucianum
Plants - Vascular	Cirsium occidentale var. lucianum	Cuesta Ridge thistle	PDAST2E1Z6	None	None	-	1B.2	3512036	SAN LUIS OBISPO	Mapped and Unprocessed	Plants - Vascular - Asteraceae - Cirsium occidentale var. lucianum
Plants - Vascular	Cirsium rhotophilum	surf thistle	PDAST2E2J0	None	Threatened	-	1B.2	3512026	PISMO BEACH	Mapped and Unprocessed	Plants - Vascular - Asteraceae - Cirsium rhotophilum
Plants - Vascular	Deinandra paniculata	paniculate tarplant	PDAST4R0Y0	None	None	-	4.2	3512026	PISMO BEACH	Unprocessed	Plants - Vascular - Asteraceae - Deinandra paniculata
Plants - Vascular	Deinandra paniculata	paniculate tarplant	PDAST4R0Y0	None	None	-	4.2	3512036	SAN LUIS OBISPO	Unprocessed	Plants - Vascular - Asteraceae - Deinandra paniculata
Plants - Vascular	Deinandra paniculata	paniculate tarplant	PDAST4R0Y0	None	None	-	4.2	3512037	MORRO BAY SOUTH	Unprocessed	Plants - Vascular - Asteraceae - Deinandra paniculata
Plants - Vascular	Deinandra paniculata	paniculate tarplant	PDAST4R0Y0	None	None	-	4.2	3512046	ATASCADERO	Unprocessed	Plants - Vascular - Asteraceae - Deinandra paniculata
Plants - Vascular	Deinandra paniculata	paniculate tarplant	PDAST4R0Y0	None	None	-	4.2	3512047	MORRO BAY NORTH	Unprocessed	Plants - Vascular - Asteraceae - Deinandra paniculata
Plants - Vascular	Erigeron blochmaniae	Blochmans leafy daisy	PDAST3M5J0	None	None	-	1B.2	3512047	MORRO BAY NORTH	Mapped	Plants - Vascular - Asteraceae - Erigeron blochmaniae
Plants - Vascular	Erigeron blochmaniae	Blochmans leafy daisy	PDAST3M5J0	None	None	-	1B.2	3512037	MORRO BAY SOUTH	Mapped	Plants - Vascular - Asteraceae - Erigeron blochmaniae
Plants - Vascular	Erigeron blochmaniae	Blochmans leafy daisy	PDAST3M5J0	None	None	-	1B.2	3512026	PISMO BEACH	Mapped	Plants - Vascular - Asteraceae - Erigeron blochmaniae
Plants - Vascular	Erigeron sanctarum	saints daisy	PDAST3M3R0	None	None	-	4.2	3512026	PISMO BEACH	Unprocessed	Plants - Vascular - Asteraceae - Erigeron sanctarum
Plants - Vascular	Erigeron sanctarum	saints daisy	PDAST3M3R0	None	None	-	4.2	3512027	PORT SAN LUIS	Unprocessed	Plants - Vascular - Asteraceae - Erigeron sanctarum
Plants - Vascular	Erigeron sanctarum	saints daisy	PDAST3M3R0	None	None	-	4.2	3512037	MORRO BAY SOUTH	Unprocessed	Plants - Vascular - Asteraceae - Erigeron sanctarum
Plants - Vascular	Grindelia hirsutula var. maritima	San Francisco gumplant	PDAST470D3	None	None	-	3.2	3512036	SAN LUIS OBISPO	Unprocessed	Plants - Vascular - Asteraceae - Grindelia hirsutula var. maritima
Plants - Vascular	Lasthenia californica ssp. macrantha	perennial goldfields	PDAST5L0C5	None	None	-	1B.2	3512037	MORRO BAY SOUTH	Mapped	Plants - Vascular - Asteraceae - Lasthenia californica ssp. macrantha
Plants - Vascular	Lasthenia glabrata ssp. coulteri	Coulters goldfields	PDAST5L0A1	None	None	-	1B.1	3512037	MORRO BAY SOUTH	Mapped	Plants - Vascular - Asteraceae - Lasthenia glabrata ssp. coulteri
Plants - Vascular	Lasthenia leptalea	Salinas Valley goldfields	PDAST5L0B0	None	None	-	4.3	3512046	ATASCADERO	Unprocessed	Plants - Vascular - Asteraceae - Lasthenia leptalea
Plants - Vascular	Layia erubescens	blushing layia	PDAST5N0H0	None	None	-	1B.2	3512037	MORRO BAY SOUTH	Mapped	Plants - Vascular - Asteraceae - Layia erubescens
Plants - Vascular	Layia erubescens	blushing layia	PDAST5N0H0	None	None	-	1B.2	3512036	SAN LUIS OBISPO	Mapped	Plants - Vascular - Asteraceae - Layia erubescens

Plants - Vascular	Layia erubescens	blushing layia	PDAST5N0H0	None	None	-	1B.2	3512026	PISMO BEACH	Mapped	Plants - Vascular - Asteraceae - Layia erubescens
Plants - Vascular	Layia jonesii	Jones layia	PDAST5N090	None	None	-	1B.2	3512026	PISMO BEACH	Mapped	Plants - Vascular - Asteraceae - Layia jonesii
Plants - Vascular	Layia jonesii	Jones layia	PDAST5N090	None	None	-	1B.2	3512036	SAN LUIS OBISPO	Mapped and Unprocessed	Plants - Vascular - Asteraceae - Layia jonesii
Plants - Vascular	Layia jonesii	Jones layia	PDAST5N090	None	None	-	1B.2	3512037	MORRO BAY SOUTH	Mapped	Plants - Vascular - Asteraceae - Layia jonesii
Plants - Vascular	Layia jonesii	Jones layia	PDAST5N090	None	None	-	1B.2	3512047	MORRO BAY NORTH	Mapped	Plants - Vascular - Asteraceae - Layia jonesii
Plants - Vascular	Monolopia gracilens	woodland woollythreads	PDAST6G010	None	None	-	1B.2	3512027	PORT SAN LUIS	Mapped	Plants - Vascular - Asteraceae - Monolopia gracilens
Plants - Vascular	Senecio aphanactis	chaparral ragwort	PDAST8H060	None	None	-	2B.2	3512027	PORT SAN LUIS	Mapped	Plants - Vascular - Asteraceae - Senecio aphanactis
Plants - Vascular	Senecio aphanactis	chaparral ragwort	PDAST8H060	None	None	-	2B.2	3512026	PISMO BEACH	Mapped	Plants - Vascular - Asteraceae - Senecio aphanactis
Plants - Vascular	Senecio aphanactis	chaparral ragwort	PDAST8H060	None	None	-	2B.2	3512047	MORRO BAY NORTH	Mapped	Plants - Vascular - Asteraceae - Senecio aphanactis
Plants - Vascular	Senecio aphanactis	chaparral ragwort	PDAST8H060	None	None	-	2B.2	3512037	MORRO BAY SOUTH	Mapped	Plants - Vascular - Asteraceae - Senecio aphanactis
Plants - Vascular	Senecio aphanactis	chaparral ragwort	PDAST8H060	None	None	-	2B.2	3512036	SAN LUIS OBISPO	Mapped	Plants - Vascular - Asteraceae - Senecio aphanactis
Plants - Vascular	Senecio astephanus	San Gabriel ragwort	PDAST8H090	None	None	-	4.3	3512046	ATASCADERO	Unprocessed	Plants - Vascular - Asteraceae - Senecio astephanus
Plants - Vascular	Senecio blochmaniae	Blochmans ragwort	PDAST8H0G0	None	None	-	4.2	3512037	MORRO BAY SOUTH	Unprocessed	Plants - Vascular - Asteraceae - Senecio blochmaniae
Plants - Vascular	Plagiobothrys uncinatus	hooked popcornflower	PDBOR0V170	None	None	-	1B.2	3512036	SAN LUIS OBISPO	Mapped and Unprocessed	Plants - Vascular - Boraginaceae - Plagiobothrys uncinatus
Plants - Vascular	Plagiobothrys uncinatus	hooked popcornflower	PDBOR0V170	None	None	-	1B.2	3512046	ATASCADERO	Mapped	Plants - Vascular - Boraginaceae - Plagiobothrys uncinatus
Plants - Vascular	Dithyrea maritima	beach spectaclepod	PDBRA10020	None	Threatened	-	1B.1	3512037	MORRO BAY SOUTH	Mapped	Plants - Vascular - Brassicaceae - Dithyrea maritima
Plants - Vascular	Dithyrea maritima	beach spectaclepod	PDBRA10020	None	Threatened	-	1B.1	3512026	PISMO BEACH	Mapped	Plants - Vascular - Brassicaceae - Dithyrea maritima
Plants - Vascular	Erysimum capitatum var. lompocense	San Luis Obispo wallflower	PDBRA16057	None	None	-	4.2	3512037	MORRO BAY SOUTH	Unprocessed	Plants - Vascular - Brassicaceae - Erysimum capitatum var. lompocense
Plants - Vascular	Erysimum suffrutescens	suffrutescent wallflower	PDBRA160D2	None	None	-	4.2	3512037	MORRO BAY SOUTH	Unprocessed	Plants - Vascular - Brassicaceae - Erysimum suffrutescens
Plants - Vascular	Erysimum suffrutescens	suffrutescent wallflower	PDBRA160D2	None	None	-	4.2	3512036	SAN LUIS OBISPO	Unprocessed	Plants - Vascular - Brassicaceae - Erysimum suffrutescens
Plants - Vascular	Erysimum suffrutescens	suffrutescent wallflower	PDBRA160D2	None	None	-	4.2	3512047	MORRO BAY NORTH	Unprocessed	Plants - Vascular - Brassicaceae - Erysimum suffrutescens
Plants - Vascular	Erysimum suffrutescens	suffrutescent wallflower	PDBRA160D2	None	None	-	4.2	3512026	PISMO BEACH	Unprocessed	Plants - Vascular - Brassicaceae - Erysimum suffrutescens
Plants - Vascular	Streptanthus albidus ssp. peramoenus	most beautiful jewelflower	PDBRA2G012	None	None	-	1B.2	3512027	PORT SAN LUIS	Mapped	Plants - Vascular - Brassicaceae - Streptanthus albidus ssp. peramoenus
Plants - Vascular	Streptanthus albidus ssp. peramoenus	most beautiful jewelflower	PDBRA2G012	None	None	-	1B.2	3512047	MORRO BAY NORTH	Mapped	Plants - Vascular - Brassicaceae - Streptanthus albidus ssp. peramoenus
Plants - Vascular	Streptanthus albidus ssp. peramoenus	most beautiful jewelflower	PDBRA2G012	None	None	-	1B.2	3512046	ATASCADERO	Mapped	Plants - Vascular - Brassicaceae - Streptanthus albidus ssp. peramoenus
Plants - Vascular	Streptanthus albidus ssp. peramoenus	most beautiful jewelflower	PDBRA2G012	None	None	-	1B.2	3512036	SAN LUIS OBISPO	Mapped	Plants - Vascular - Brassicaceae - Streptanthus albidus ssp. peramoenus

Plants - Vascular	Streptanthus albidus ssp. peramoenus	most beautiful jewelflower	PDBRA2G012	None	None	-	1B.2	3512037	MORRO BAY SOUTH	Mapped	Plants - Vascular - Brassicaceae - Streptanthus albidus ssp. peramoenus
Plants - Vascular	Arenaria paludicola	marsh sandwort	PDCAR040L0	Endangered	Endangered	-	1B.1	3512037	MORRO BAY SOUTH	Mapped	Plants - Vascular - Caryophyllaceae - Arenaria paludicola
Plants - Vascular	Arenaria paludicola	marsh sandwort	PDCAR040L0	Endangered	Endangered	-	1B.1	3512026	PISMO BEACH	Mapped	Plants - Vascular - Caryophyllaceae - Arenaria paludicola
Plants - Vascular	Atriplex coulteri	Coulters saltbush	PDCHE040E0	None	None	-	1B.2	3512027	PORT SAN LUIS	Mapped	Plants - Vascular - Chenopodiaceae - Atriplex coulteri
Plants - Vascular	Atriplex coulteri	Coulters saltbush	PDCHE040E0	None	None	-	1B.2	3512037	MORRO BAY SOUTH	Mapped	Plants - Vascular - Chenopodiaceae - Atriplex coulteri
Plants - Vascular	Chenopodium littoreum	coastal goosefoot	PDCHE091Z0	None	None	-	1B.2	3512037	MORRO BAY SOUTH	Mapped and Unprocessed	Plants - Vascular - Chenopodiaceae - Chenopodium littoreum
Plants - Vascular	Extriplex joaquinana	San Joaquin spearscale	PDCHE041F3	None	None	-	1B.2	3512037	MORRO BAY SOUTH	Mapped	Plants - Vascular - Chenopodiaceae - Extriplex joaquinana
Plants - Vascular	Extriplex joaquinana	San Joaquin spearscale	PDCHE041F3	None	None	-	1B.2	3512047	MORRO BAY NORTH	Mapped	Plants - Vascular - Chenopodiaceae - Extriplex joaquinana
Plants - Vascular	Suaeda californica	California seablite	PDCHE0P020	Endangered	None	-	1B.1	3512047	MORRO BAY NORTH	Mapped	Plants - Vascular - Chenopodiaceae - Suaeda californica
Plants - Vascular	Suaeda californica	California seablite	PDCHE0P020	Endangered	None	-	1B.1	3512037	MORRO BAY SOUTH	Mapped and Unprocessed	Plants - Vascular - Chenopodiaceae - Suaeda californica
Plants - Vascular	Calystegia subacaulis ssp. episcopalis	Cambria morning-glory	PDCON040J1	None	None	-	4.2	3512037	MORRO BAY SOUTH	Mapped and Unprocessed	Plants - Vascular - Convolvulaceae - Calystegia subacaulis ssp. episcopalis
Plants - Vascular	Calystegia subacaulis ssp. episcopalis	Cambria morning-glory	PDCON040J1	None	None	-	4.2	3512036	SAN LUIS OBISPO	Mapped and Unprocessed	Plants - Vascular - Convolvulaceae - Calystegia subacaulis ssp. episcopalis
Plants - Vascular	Calystegia subacaulis ssp. episcopalis	Cambria morning-glory	PDCON040J1	None	None	-	4.2	3512047	MORRO BAY NORTH	Unprocessed	Plants - Vascular - Convolvulaceae - Calystegia subacaulis ssp. episcopalis
Plants - Vascular	Calystegia subacaulis ssp. episcopalis	Cambria morning-glory	PDCON040J1	None	None	-	4.2	3512027	PORT SAN LUIS	Unprocessed	Plants - Vascular - Convolvulaceae - Calystegia subacaulis ssp. episcopalis
Plants - Vascular	Calystegia subacaulis ssp. episcopalis	Cambria morning-glory	PDCON040J1	None	None	-	4.2	3512026	PISMO BEACH	Mapped and Unprocessed	Plants - Vascular - Convolvulaceae - Calystegia subacaulis ssp. episcopalis
Plants - Vascular	Dudleya abramsii ssp. bettinae	Bettys dudleya	PDCRA04011	None	None	-	1B.2	3512026	PISMO BEACH	Mapped	Plants - Vascular - Crassulaceae - Dudleya abramsii ssp. bettinae
Plants - Vascular	Dudleya abramsii ssp. bettinae	Bettys dudleya	PDCRA04011	None	None	-	1B.2	3512047	MORRO BAY NORTH	Mapped	Plants - Vascular - Crassulaceae - Dudleya abramsii ssp. bettinae
Plants - Vascular	Dudleya abramsii ssp. bettinae	Bettys dudleya	PDCRA04011	None	None	-	1B.2	3512036	SAN LUIS OBISPO	Mapped	Plants - Vascular - Crassulaceae - Dudleya abramsii ssp. bettinae
Plants - Vascular	Dudleya abramsii ssp. bettinae	Bettys dudleya	PDCRA04011	None	None	-	1B.2	3512037	MORRO BAY SOUTH	Mapped	Plants - Vascular - Crassulaceae - Dudleya abramsii ssp. bettinae
Plants - Vascular	Dudleya abramsii ssp. murina	mouse-gray dudleya	PDCRA04012	None	None	-	1B.1	3512037	MORRO BAY SOUTH	Mapped	Plants - Vascular - Crassulaceae - Dudleya abramsii ssp. murina
Plants - Vascular	Dudleya abramsii ssp. murina	mouse-gray dudleya	PDCRA04012	None	None	-	1B.1	3512036	SAN LUIS OBISPO	Mapped and Unprocessed	Plants - Vascular - Crassulaceae - Dudleya abramsii ssp. murina
Plants - Vascular	Dudleya abramsii ssp. murina	mouse-gray dudleya	PDCRA04012	None	None	-	1B.1	3512047	MORRO BAY NORTH	Mapped	Plants - Vascular - Crassulaceae - Dudleya abramsii ssp. murina
Plants - Vascular	Dudleya abramsii ssp. murina	mouse-gray dudleya	PDCRA04012	None	None	-	1B.1	3512046	ATASCADERO	Mapped	Plants - Vascular - Crassulaceae - Dudleya abramsii ssp. murina
Plants - Vascular	Dudleya abramsii ssp. murina	mouse-gray dudleya	PDCRA04012	None	None	-	1B.1	3512026	PISMO BEACH	Mapped and Unprocessed	Plants - Vascular - Crassulaceae - Dudleya abramsii ssp. murina
Plants - Vascular	Dudleya abramsii ssp. murina	mouse-gray dudleya	PDCRA04012	None	None	-	1B.1	3512027	PORT SAN LUIS	Mapped	Plants - Vascular - Crassulaceae - Dudleya abramsii ssp. murina
Plants - Vascular	Dudleya blochmaniae	Blochmans dudleya	PDCRA04051	None	None	-	1B.1	3512026	PISMO BEACH	Mapped and Unprocessed	Plants - Vascular - Crassulaceae -

	ssp. blochmaniae										Dudleya blochmaniae ssp. blochmaniae
Plants - Vascular	Dudleya blochmaniae ssp. blochmaniae	Blochmans dudleya	PDCRA04051	None	None	-	1B.1	3512047	MORRO BAY NORTH	Mapped and Unprocessed	Plants - Vascular - Crassulaceae - Dudleya blochmaniae ssp. blochmaniae
Plants - Vascular	Dudleya blochmaniae ssp. blochmaniae	Blochmans dudleya	PDCRA04051	None	None	-	1B.1	3512036	SAN LUIS OBISPO	Mapped and Unprocessed	Plants - Vascular - Crassulaceae - Dudleya blochmaniae ssp. blochmaniae
Plants - Vascular	Dudleya blochmaniae ssp. blochmaniae	Blochmans dudleya	PDCRA04051	None	None	-	1B.1	3512037	MORRO BAY SOUTH	Mapped and Unprocessed	Plants - Vascular - Crassulaceae - Dudleya blochmaniae ssp. blochmaniae
Plants - Vascular	Carex obispoensis	San Luis Obispo sedge	PMCYP039J0	None	None	-	1B.2	3512037	MORRO BAY SOUTH	Mapped	Plants - Vascular - Cyperaceae - Carex obispoensis
Plants - Vascular	Carex obispoensis	San Luis Obispo sedge	PMCYP039J0	None	None	-	1B.2	3512046	ATASCADERO	Mapped	Plants - Vascular - Cyperaceae - Carex obispoensis
Plants - Vascular	Carex obispoensis	San Luis Obispo sedge	PMCYP039J0	None	None	-	1B.2	3512036	SAN LUIS OBISPO	Mapped and Unprocessed	Plants - Vascular - Cyperaceae - Carex obispoensis
Plants - Vascular	Carex obispoensis	San Luis Obispo sedge	PMCYP039J0	None	None	-	1B.2	3512026	PISMO BEACH	Mapped and Unprocessed	Plants - Vascular - Cyperaceae - Carex obispoensis
Plants - Vascular	Arctostaphylos luciana	Santa Lucia manzanita	PDERI040N0	None	None	-	1B.2	3512046	ATASCADERO	Mapped	Plants - Vascular - Ericaceae - Arctostaphylos luciana
Plants - Vascular	Arctostaphylos luciana	Santa Lucia manzanita	PDERI040N0	None	None	-	1B.2	3512036	SAN LUIS OBISPO	Mapped and Unprocessed	Plants - Vascular - Ericaceae - Arctostaphylos luciana
Plants - Vascular	Arctostaphylos luciana	Santa Lucia manzanita	PDERI040N0	None	None	-	1B.2	3512037	MORRO BAY SOUTH	Mapped	Plants - Vascular - Ericaceae - Arctostaphylos luciana
Plants - Vascular	Arctostaphylos morroensis	Morro manzanita	PDERI040S0	Threatened	None	-	1B.1	3512037	MORRO BAY SOUTH	Mapped and Unprocessed	Plants - Vascular - Ericaceae - Arctostaphylos morroensis
Plants - Vascular	Arctostaphylos obispoensis	Bishop manzanita	PDERI040X0	None	None	-	4.3	3512037	MORRO BAY SOUTH	Unprocessed	Plants - Vascular - Ericaceae - Arctostaphylos obispoensis
Plants - Vascular	Arctostaphylos obispoensis	Bishop manzanita	PDERI040X0	None	None	-	4.3	3512036	SAN LUIS OBISPO	Unprocessed	Plants - Vascular - Ericaceae - Arctostaphylos obispoensis
Plants - Vascular	Arctostaphylos obispoensis	Bishop manzanita	PDERI040X0	None	None	-	4.3	3512046	ATASCADERO	Unprocessed	Plants - Vascular - Ericaceae - Arctostaphylos obispoensis
Plants - Vascular	Arctostaphylos obispoensis	Bishop manzanita	PDERI040X0	None	None	-	4.3	3512047	MORRO BAY NORTH	Unprocessed	Plants - Vascular - Ericaceae - Arctostaphylos obispoensis
Plants - Vascular	Arctostaphylos obispoensis	Bishop manzanita	PDERI040X0	None	None	-	4.3	3512026	PISMO BEACH	Unprocessed	Plants - Vascular - Ericaceae - Arctostaphylos obispoensis
Plants - Vascular	Arctostaphylos osoensis	Oso manzanita	PDERI042S0	None	None	-	1B.2	3512036	SAN LUIS OBISPO	Mapped	Plants - Vascular - Ericaceae - Arctostaphylos osoensis
Plants - Vascular	Arctostaphylos osoensis	Oso manzanita	PDERI042S0	None	None	-	1B.2	3512037	MORRO BAY SOUTH	Mapped and Unprocessed	Plants - Vascular - Ericaceae - Arctostaphylos osoensis
Plants - Vascular	Arctostaphylos pechoensis	Pecho manzanita	PDERI04140	None	None	-	1B.2	3512037	MORRO BAY SOUTH	Mapped and Unprocessed	Plants - Vascular - Ericaceae - Arctostaphylos pechoensis
Plants - Vascular	Arctostaphylos pechoensis	Pecho manzanita	PDERI04140	None	None	-	1B.2	3512036	SAN LUIS OBISPO	Mapped	Plants - Vascular - Ericaceae - Arctostaphylos pechoensis
Plants - Vascular	Arctostaphylos pechoensis	Pecho manzanita	PDERI04140	None	None	-	1B.2	3512027	PORT SAN LUIS	Mapped and Unprocessed	Plants - Vascular - Ericaceae - Arctostaphylos pechoensis
Plants - Vascular	Arctostaphylos pechoensis	Pecho manzanita	PDERI04140	None	None	-	1B.2	3512026	PISMO BEACH	Mapped and Unprocessed	Plants - Vascular - Ericaceae - Arctostaphylos pechoensis
Plants - Vascular	Arctostaphylos pilosula	Santa Margarita manzanita	PDERI042Z0	None	None	-	1B.2	3512026	PISMO BEACH	Mapped and Unprocessed	Plants - Vascular - Ericaceae - Arctostaphylos pilosula
Plants - Vascular	Arctostaphylos pilosula	Santa Margarita manzanita	PDERI042Z0	None	None	-	1B.2	3512027	PORT SAN LUIS	Mapped	Plants - Vascular - Ericaceae - Arctostaphylos pilosula
Plants - Vascular	Arctostaphylos pilosula	Santa Margarita manzanita	PDERI042Z0	None	None	-	1B.2	3512036	SAN LUIS OBISPO	Mapped	Plants - Vascular - Ericaceae - Arctostaphylos pilosula
Plants - Vascular	Arctostaphylos pilosula	Santa Margarita manzanita	PDERI042Z0	None	None	-	1B.2	3512037	MORRO BAY SOUTH	Mapped	Plants - Vascular - Ericaceae -

											Arctostaphylos pilosula
Plants - Vascular	Arctostaphylos pilosula	Santa Margarita manzanita	PDERI042Z0	None	None	-	1B.2	3512046	ATASCADERO	Mapped	Plants - Vascular - Ericaceae - Arctostaphylos pilosula
Plants - Vascular	Arctostaphylos rudis	sand mesa manzanita	PDERI041E0	None	None	-	1B.1	3512026	PISMO BEACH	Mapped	Plants - Vascular - Ericaceae - Arctostaphylos rudis
Plants - Vascular	Arctostaphylos tomentosa ssp. dacticola	dacite manzanita	PDERI041HD	None	None	-	1B.1	3512037	MORRO BAY SOUTH	Mapped and Unprocessed	Plants - Vascular - Ericaceae - Arctostaphylos tomentosa ssp. dacticola
Plants - Vascular	Astragalus didymocarpus var. milesianus	Miles milk-vetch	PDFAB0F2X3	None	None	-	1B.2	3512037	MORRO BAY SOUTH	Mapped	Plants - Vascular - Fabaceae - Astragalus didymocarpus var. milesianus
Plants - Vascular	Astragalus didymocarpus var. milesianus	Miles milk-vetch	PDFAB0F2X3	None	None	-	1B.2	3512046	ATASCADERO	Mapped	Plants - Vascular - Fabaceae - Astragalus didymocarpus var. milesianus
Plants - Vascular	Astragalus didymocarpus var. milesianus	Miles milk-vetch	PDFAB0F2X3	None	None	-	1B.2	3512047	MORRO BAY NORTH	Mapped	Plants - Vascular - Fabaceae - Astragalus didymocarpus var. milesianus
Plants - Vascular	Astragalus didymocarpus var. milesianus	Miles milk-vetch	PDFAB0F2X3	None	None	-	1B.2	3512036	SAN LUIS OBISPO	Mapped and Unprocessed	Plants - Vascular - Fabaceae - Astragalus didymocarpus var. milesianus
Plants - Vascular	Astragalus nuttallii var. nuttallii	ocean bluff milk-vetch	PDFAB0F641	None	None	-	4.2	3512027	PORT SAN LUIS	Unprocessed	Plants - Vascular - Fabaceae - Astragalus nuttallii var. nuttallii
Plants - Vascular	Astragalus nuttallii var. nuttallii	ocean bluff milk-vetch	PDFAB0F641	None	None	-	4.2	3512047	MORRO BAY NORTH	Unprocessed	Plants - Vascular - Fabaceae - Astragalus nuttallii var. nuttallii
Plants - Vascular	Astragalus nuttallii var. nuttallii	ocean bluff milk-vetch	PDFAB0F641	None	None	-	4.2	3512037	MORRO BAY SOUTH	Unprocessed	Plants - Vascular - Fabaceae - Astragalus nuttallii var. nuttallii
Plants - Vascular	Lupinus ludovicianus	San Luis Obispo County lupine	PDFAB2B2G0	None	None	-	1B.2	3512026	PISMO BEACH	Mapped and Unprocessed	Plants - Vascular - Fabaceae - Lupinus ludovicianus
Plants - Vascular	Trifolium hydrophilum	saline clover	PDFAB400R5	None	None	-	1B.2	3512036	SAN LUIS OBISPO	Mapped	Plants - Vascular - Fabaceae - Trifolium hydrophilum
Plants - Vascular	Ribes sericeum	Santa Lucia gooseberry	PDGRO021F0	None	None	-	4.3	3512036	SAN LUIS OBISPO	Unprocessed	Plants - Vascular - Grossulariaceae - Ribes sericeum
Plants - Vascular	Juncus acutus ssp. leopoldii	southwestern spiny rush	PMJUN01051	None	None	-	4.2	3512036	SAN LUIS OBISPO	Unprocessed	Plants - Vascular - Juncaceae - Juncus acutus ssp. leopoldii
Plants - Vascular	Juncus acutus ssp. leopoldii	southwestern spiny rush	PMJUN01051	None	None	-	4.2	3512026	PISMO BEACH	Unprocessed	Plants - Vascular - Juncaceae - Juncus acutus ssp. leopoldii
Plants - Vascular	Juncus acutus ssp. leopoldii	southwestern spiny rush	PMJUN01051	None	None	-	4.2	3512037	MORRO BAY SOUTH	Unprocessed	Plants - Vascular - Juncaceae - Juncus acutus ssp. leopoldii
Plants - Vascular	Juncus acutus ssp. leopoldii	southwestern spiny rush	PMJUN01051	None	None	-	4.2	3512047	MORRO BAY NORTH	Unprocessed	Plants - Vascular - Juncaceae - Juncus acutus ssp. leopoldii
Plants - Vascular	Clinopodium mimuloides	monkey-flower savory	PDLAM1T040	None	None	-	4.2	3512036	SAN LUIS OBISPO	Unprocessed	Plants - Vascular - Lamiaceae - Clinopodium mimuloides
Plants - Vascular	Monardella palmeri	Palmer's monardella	PDLAM180H0	None	None	-	1B.2	3512036	SAN LUIS OBISPO	Mapped and Unprocessed	Plants - Vascular - Lamiaceae - Monardella palmeri
Plants - Vascular	Monardella palmeri	Palmer's monardella	PDLAM180H0	None	None	-	1B.2	3512026	PISMO BEACH	Unprocessed	Plants - Vascular - Lamiaceae - Monardella palmeri
Plants - Vascular	Monardella palmeri	Palmer's monardella	PDLAM180H0	None	None	-	1B.2	3512047	MORRO BAY NORTH	Mapped	Plants - Vascular - Lamiaceae - Monardella palmeri
Plants - Vascular	Monardella palmeri	Palmer's monardella	PDLAM180H0	None	None	-	1B.2	3512046	ATASCADERO	Mapped and Unprocessed	Plants - Vascular - Lamiaceae - Monardella palmeri
Plants - Vascular	Monardella palmeri	Palmer's monardella	PDLAM180H0	None	None	-	1B.2	3512037	MORRO BAY SOUTH	Mapped	Plants - Vascular - Lamiaceae - Monardella palmeri
Plants - Vascular	Monardella sinuata ssp. sinuata	southern curly-leaved monardella	PDLAM18161	None	None	-	1B.2	3512037	MORRO BAY SOUTH	Mapped and Unprocessed	Plants - Vascular - Lamiaceae - Monardella sinuata ssp. sinuata
Plants - Vascular	Monardella sinuata ssp. sinuata	southern curly-leaved monardella	PDLAM18161	None	None	-	1B.2	3512026	PISMO BEACH	Mapped and Unprocessed	Plants - Vascular - Lamiaceae - Monardella sinuata ssp. sinuata
Plants - Vascular	Calochortus clavatus var. clavatus	club-haired mariposa-lily	PMLIL0D091	None	None	-	4.3	3512036	SAN LUIS OBISPO	Unprocessed	Plants - Vascular - Liliaceae - Calochortus

											clavatus var. clavatus
Plants - Vascular	Calochortus clavatus var. clavatus	club-haired mariposa-lily	PMLIL0D091	None	None	-	4.3	3512026	PISMO BEACH	Unprocessed	Plants - Vascular - Liliaceae - Calochortus clavatus var. clavatus
Plants - Vascular	Calochortus clavatus var. clavatus	club-haired mariposa-lily	PMLIL0D091	None	None	-	4.3	3512037	MORRO BAY SOUTH	Unprocessed	Plants - Vascular - Liliaceae - Calochortus clavatus var. clavatus
Plants - Vascular	Calochortus clavatus var. clavatus	club-haired mariposa-lily	PMLIL0D091	None	None	-	4.3	3512046	ATASCADERO	Unprocessed	Plants - Vascular - Liliaceae - Calochortus clavatus var. clavatus
Plants - Vascular	Calochortus clavatus var. clavatus	club-haired mariposa-lily	PMLIL0D091	None	None	-	4.3	3512047	MORRO BAY NORTH	Unprocessed	Plants - Vascular - Liliaceae - Calochortus clavatus var. clavatus
Plants - Vascular	Calochortus obispoensis	San Luis mariposa-lily	PMLIL0D110	None	None	-	1B.2	3512046	ATASCADERO	Mapped	Plants - Vascular - Liliaceae - Calochortus obispoensis
Plants - Vascular	Calochortus obispoensis	San Luis mariposa-lily	PMLIL0D110	None	None	-	1B.2	3512037	MORRO BAY SOUTH	Mapped	Plants - Vascular - Liliaceae - Calochortus obispoensis
Plants - Vascular	Calochortus obispoensis	San Luis mariposa-lily	PMLIL0D110	None	None	-	1B.2	3512026	PISMO BEACH	Mapped	Plants - Vascular - Liliaceae - Calochortus obispoensis
Plants - Vascular	Calochortus obispoensis	San Luis mariposa-lily	PMLIL0D110	None	None	-	1B.2	3512036	SAN LUIS OBISPO	Mapped and Unprocessed	Plants - Vascular - Liliaceae - Calochortus obispoensis
Plants - Vascular	Calochortus obispoensis	San Luis mariposa-lily	PMLIL0D110	None	None	-	1B.2	3512027	PORT SAN LUIS	Mapped	Plants - Vascular - Liliaceae - Calochortus obispoensis
Plants - Vascular	Calochortus simulans	La Panza mariposa-lily	PMLIL0D170	None	None	-	1B.3	3512036	SAN LUIS OBISPO	Mapped	Plants - Vascular - Liliaceae - Calochortus simulans
Plants - Vascular	Calochortus simulans	La Panza mariposa-lily	PMLIL0D170	None	None	-	1B.3	3512026	PISMO BEACH	Mapped	Plants - Vascular - Liliaceae - Calochortus simulans
Plants - Vascular	Calochortus simulans	La Panza mariposa-lily	PMLIL0D170	None	None	-	1B.3	3512046	ATASCADERO	Mapped	Plants - Vascular - Liliaceae - Calochortus simulans
Plants - Vascular	Fritillaria agrestis	stinkbells	PMLIL0V010	None	None	-	4.2	3512046	ATASCADERO	Unprocessed	Plants - Vascular - Liliaceae - Fritillaria agrestis
Plants - Vascular	Fritillaria agrestis	stinkbells	PMLIL0V010	None	None	-	4.2	3512036	SAN LUIS OBISPO	Unprocessed	Plants - Vascular - Liliaceae - Fritillaria agrestis
Plants - Vascular	Fritillaria ojaiensis	Ojai fritillary	PMLIL0V0N0	None	None	-	1B.2	3512036	SAN LUIS OBISPO	Mapped	Plants - Vascular - Liliaceae - Fritillaria ojaiensis
Plants - Vascular	Fritillaria ojaiensis	Ojai fritillary	PMLIL0V0N0	None	None	-	1B.2	3512046	ATASCADERO	Mapped	Plants - Vascular - Liliaceae - Fritillaria ojaiensis
Plants - Vascular	Fritillaria ojaiensis	Ojai fritillary	PMLIL0V0N0	None	None	-	1B.2	3512047	MORRO BAY NORTH	Mapped	Plants - Vascular - Liliaceae - Fritillaria ojaiensis
Plants - Vascular	Malacothamnus jonesii	Jones bushmallow	PDMAL0Q090	None	None	-	4.3	3512046	ATASCADERO	Unprocessed	Plants - Vascular - Malvaceae - Malacothamnus jonesii
Plants - Vascular	Malacothamnus palmeri	Santa Lucia bushmallow	PDMAL0Q0B5	None	None	-	1B.2	3512046	ATASCADERO	Mapped and Unprocessed	Plants - Vascular - Malvaceae - Malacothamnus palmeri
Plants - Vascular	Malacothamnus palmeri	Santa Lucia bushmallow	PDMAL0Q0B5	None	None	-	1B.2	3512047	MORRO BAY NORTH	Mapped and Unprocessed	Plants - Vascular - Malvaceae - Malacothamnus palmeri
Plants - Vascular	Sidalcea hickmanii ssp. anomala	Cuesta Pass checkerbloom	PDMAL110A1	None	Rare	-	1B.2	3512046	ATASCADERO	Mapped	Plants - Vascular - Malvaceae - Sidalcea hickmanii ssp. anomala
Plants - Vascular	Sidalcea hickmanii ssp. anomala	Cuesta Pass checkerbloom	PDMAL110A1	None	Rare	-	1B.2	3512036	SAN LUIS OBISPO	Mapped and Unprocessed	Plants - Vascular - Malvaceae - Sidalcea hickmanii ssp. anomala
Plants - Vascular	Calandrinia breweri	Brewers calandrinia	PDPOR01020	None	None	-	4.2	3512026	PISMO BEACH	Unprocessed	Plants - Vascular - Montiaceae - Calandrinia breweri
Plants - Vascular	Eriodictyon altissimum	Indian Knob mountainbalm	PDHYD04010	Endangered	Endangered	-	1B.1	3512026	PISMO BEACH	Mapped	Plants - Vascular - Namaceae - Eriodictyon altissimum
Plants - Vascular	Eriodictyon altissimum	Indian Knob mountainbalm	PDHYD04010	Endangered	Endangered	-	1B.1	3512037	MORRO BAY SOUTH	Mapped and Unprocessed	Plants - Vascular - Namaceae - Eriodictyon altissimum
Plants - Vascular	Abronia maritima	red sand-verbena	PDNYC010E0	None	None	-	4.2	3512037	MORRO BAY SOUTH	Unprocessed	Plants - Vascular - Nyctaginaceae - Abronia maritima

Plants - Vascular	Abronia maritima	red sand-verbena	PDNYC010E0	None	None	-	4.2	3512047	MORRO BAY NORTH	Unprocessed	Plants - Vascular - Nyctaginaceae - Abronia maritima
Plants - Vascular	Camissoniopsis hardhamiae	Hardhams evening-primrose	PDONA030N0	None	None	-	1B.2	3512037	MORRO BAY SOUTH	Mapped	Plants - Vascular - Onagraceae - Camissoniopsis hardhamiae
Plants - Vascular	Clarkia speciosa ssp. immaculata	Pismo clarkia	PDONA05111	Endangered	Rare	-	1B.1	3512037	MORRO BAY SOUTH	Mapped	Plants - Vascular - Onagraceae - Clarkia speciosa ssp. immaculata
Plants - Vascular	Clarkia speciosa ssp. immaculata	Pismo clarkia	PDONA05111	Endangered	Rare	-	1B.1	3512026	PISMO BEACH	Mapped and Unprocessed	Plants - Vascular - Onagraceae - Clarkia speciosa ssp. immaculata
Plants - Vascular	Piperia michaelii	Michaels rein orchid	PMORC1X110	None	None	-	4.2	3512036	SAN LUIS OBISPO	Unprocessed	Plants - Vascular - Orchidaceae - Piperia michaelii
Plants - Vascular	Castilleja densiflora var. obispoensis	San Luis Obispo owls-clover	PDSCR0D453	None	None	-	1B.2	3512036	SAN LUIS OBISPO	Mapped and Unprocessed	Plants - Vascular - Orobanchaceae - Castilleja densiflora var. obispoensis
Plants - Vascular	Castilleja densiflora var. obispoensis	San Luis Obispo owls-clover	PDSCR0D453	None	None	-	1B.2	3512027	PORT SAN LUIS	Mapped	Plants - Vascular - Orobanchaceae - Castilleja densiflora var. obispoensis
Plants - Vascular	Castilleja densiflora var. obispoensis	San Luis Obispo owls-clover	PDSCR0D453	None	None	-	1B.2	3512026	PISMO BEACH	Mapped and Unprocessed	Plants - Vascular - Orobanchaceae - Castilleja densiflora var. obispoensis
Plants - Vascular	Castilleja densiflora var. obispoensis	San Luis Obispo owls-clover	PDSCR0D453	None	None	-	1B.2	3512037	MORRO BAY SOUTH	Mapped and Unprocessed	Plants - Vascular - Orobanchaceae - Castilleja densiflora var. obispoensis
Plants - Vascular	Castilleja densiflora var. obispoensis	San Luis Obispo owls-clover	PDSCR0D453	None	None	-	1B.2	3512047	MORRO BAY NORTH	Mapped and Unprocessed	Plants - Vascular - Orobanchaceae - Castilleja densiflora var. obispoensis
Plants - Vascular	Chloropyron maritimum ssp. maritimum	salt marsh birds-beak	PDSCR0J0C2	Endangered	Endangered	-	1B.2	3512037	MORRO BAY SOUTH	Unprocessed	Plants - Vascular - Orobanchaceae - Chloropyron maritimum ssp. maritimum
Plants - Vascular	Chloropyron maritimum ssp. palustre	Point Reyes salty birds-beak	PDSCR0J0C3	None	None	-	1B.2	3512037	MORRO BAY SOUTH	Mapped	Plants - Vascular - Orobanchaceae - Chloropyron maritimum ssp. palustre
Plants - Vascular	Eschscholzia hypocoides	San Benito poppy	PDPAP0A060	None	None	-	4.3	3512026	PISMO BEACH	Unprocessed	Plants - Vascular - Papaveraceae - Eschscholzia hypocoides
Plants - Vascular	Eschscholzia hypocoides	San Benito poppy	PDPAP0A060	None	None	-	4.3	3512027	PORT SAN LUIS	Unprocessed	Plants - Vascular - Papaveraceae - Eschscholzia hypocoides
Plants - Vascular	Erythranthe serpenticola	Irish Hills monkeyflower	PDPHR01290	None	None	-	1B.1	3512036	SAN LUIS OBISPO	Mapped	Plants - Vascular - Phrymaceae - Erythranthe serpenticola
Plants - Vascular	Erythranthe serpenticola	Irish Hills monkeyflower	PDPHR01290	None	None	-	1B.1	3512026	PISMO BEACH	Mapped	Plants - Vascular - Phrymaceae - Erythranthe serpenticola
Plants - Vascular	Erythranthe serpenticola	Irish Hills monkeyflower	PDPHR01290	None	None	-	1B.1	3512037	MORRO BAY SOUTH	Mapped	Plants - Vascular - Phrymaceae - Erythranthe serpenticola
Plants - Vascular	Agrostis hooveri	Hoovers bent grass	PMPOA040M0	None	None	-	1B.2	3512037	MORRO BAY SOUTH	Mapped	Plants - Vascular - Poaceae - Agrostis hooveri
Plants - Vascular	Agrostis hooveri	Hoovers bent grass	PMPOA040M0	None	None	-	1B.2	3512027	PORT SAN LUIS	Mapped	Plants - Vascular - Poaceae - Agrostis hooveri
Plants - Vascular	Agrostis hooveri	Hoovers bent grass	PMPOA040M0	None	None	-	1B.2	3512026	PISMO BEACH	Mapped and Unprocessed	Plants - Vascular - Poaceae - Agrostis hooveri
Plants - Vascular	Muhlenbergia utilis	aparejo grass	PMPOA481X0	None	None	-	2B.2	3512036	SAN LUIS OBISPO	Mapped	Plants - Vascular - Poaceae - Muhlenbergia utilis
Plants - Vascular	Poa diabolii	Diablo Canyon blue grass	PMPOA4Z390	None	None	-	1B.2	3512027	PORT SAN LUIS	Mapped	Plants - Vascular - Poaceae - Poa diabolii
Plants - Vascular	Poa diabolii	Diablo Canyon blue grass	PMPOA4Z390	None	None	-	1B.2	3512037	MORRO BAY SOUTH	Mapped and Unprocessed	Plants - Vascular - Poaceae - Poa diabolii
Plants - Vascular	Eriastrum luteum	yellow-flowered eriastrum	PDPLM03080	None	None	-	1B.2	3512046	ATASCADERO	Mapped	Plants - Vascular - Polemoniaceae - Eriastrum luteum
Plants - Vascular	Leptosiphon grandiflorus	large-flowered leptosiphon	PDPLM090K0	None	None	-	4.2	3512036	SAN LUIS OBISPO	Unprocessed	Plants - Vascular - Polemoniaceae - Leptosiphon grandiflorus
Plants - Vascular	Chorizanthe aphanantha	Irish Hills spineflower	PDPGN04110	None	None	-	1B.1	3512036	SAN LUIS OBISPO	Mapped and Unprocessed	Plants - Vascular - Polygonaceae - Chorizanthe aphanantha

Plants - Vascular	Chorizanthe aphanantha	Irish Hills spineflower	PDPGN04110	None	None	-	1B.1	3512026	PISMO BEACH	Mapped	Plants - Vascular - Polygonaceae - Chorizanthe aphanantha
Plants - Vascular	Chorizanthe breweri	Brewers spineflower	PDPGN04050	None	None	-	1B.3	3512026	PISMO BEACH	Mapped and Unprocessed	Plants - Vascular - Polygonaceae - Chorizanthe breweri
Plants - Vascular	Chorizanthe breweri	Brewers spineflower	PDPGN04050	None	None	-	1B.3	3512027	PORT SAN LUIS	Mapped	Plants - Vascular - Polygonaceae - Chorizanthe breweri
Plants - Vascular	Chorizanthe breweri	Brewers spineflower	PDPGN04050	None	None	-	1B.3	3512036	SAN LUIS OBISPO	Mapped and Unprocessed	Plants - Vascular - Polygonaceae - Chorizanthe breweri
Plants - Vascular	Chorizanthe breweri	Brewers spineflower	PDPGN04050	None	None	-	1B.3	3512046	ATASCADERO	Mapped	Plants - Vascular - Polygonaceae - Chorizanthe breweri
Plants - Vascular	Chorizanthe breweri	Brewers spineflower	PDPGN04050	None	None	-	1B.3	3512037	MORRO BAY SOUTH	Mapped	Plants - Vascular - Polygonaceae - Chorizanthe breweri
Plants - Vascular	Chorizanthe douglasii	Douglas spineflower	PDPGN040A0	None	None	-	4.3	3512046	ATASCADERO	Unprocessed	Plants - Vascular - Polygonaceae - Chorizanthe douglasii
Plants - Vascular	Chorizanthe palmeri	Palmer's spineflower	PDPGN040H0	None	None	-	4.2	3512046	ATASCADERO	Unprocessed	Plants - Vascular - Polygonaceae - Chorizanthe palmeri
Plants - Vascular	Chorizanthe palmeri	Palmer's spineflower	PDPGN040H0	None	None	-	4.2	3512047	MORRO BAY NORTH	Unprocessed	Plants - Vascular - Polygonaceae - Chorizanthe palmeri
Plants - Vascular	Chorizanthe palmeri	Palmer's spineflower	PDPGN040H0	None	None	-	4.2	3512037	MORRO BAY SOUTH	Unprocessed	Plants - Vascular - Polygonaceae - Chorizanthe palmeri
Plants - Vascular	Chorizanthe palmeri	Palmer's spineflower	PDPGN040H0	None	None	-	4.2	3512036	SAN LUIS OBISPO	Unprocessed	Plants - Vascular - Polygonaceae - Chorizanthe palmeri
Plants - Vascular	Chorizanthe palmeri	Palmer's spineflower	PDPGN040H0	None	None	-	4.2	3512027	PORT SAN LUIS	Unprocessed	Plants - Vascular - Polygonaceae - Chorizanthe palmeri
Plants - Vascular	Chorizanthe palmeri	Palmer's spineflower	PDPGN040H0	None	None	-	4.2	3512026	PISMO BEACH	Unprocessed	Plants - Vascular - Polygonaceae - Chorizanthe palmeri
Plants - Vascular	Chorizanthe rectispina	straight-awned spineflower	PDPGN040N0	None	None	-	1B.2	3512046	ATASCADERO	Mapped	Plants - Vascular - Polygonaceae - Chorizanthe rectispina
Plants - Vascular	Chorizanthe ventricosa	potbellied spineflower	PDPGN040W0	None	None	-	4.3	3512036	SAN LUIS OBISPO	Unprocessed	Plants - Vascular - Polygonaceae - Chorizanthe ventricosa
Plants - Vascular	Mucronea californica	California spineflower	PDPGN0F010	None	None	-	4.2	3512026	PISMO BEACH	Unprocessed	Plants - Vascular - Polygonaceae - Mucronea californica
Plants - Vascular	Mucronea californica	California spineflower	PDPGN0F010	None	None	-	4.2	3512037	MORRO BAY SOUTH	Unprocessed	Plants - Vascular - Polygonaceae - Mucronea californica
Plants - Vascular	Nemacaulis denudata var. denudata	coast woolly-heads	PDPGN0G011	None	None	-	1B.2	3512037	MORRO BAY SOUTH	Mapped	Plants - Vascular - Polygonaceae - Nemacaulis denudata var. denudata
Plants - Vascular	Aspidotis carlotta-halliae	Carlotta Hall's lace fern	PPADI07020	None	None	-	4.2	3512037	MORRO BAY SOUTH	Unprocessed	Plants - Vascular - Pteridaceae - Aspidotis carlotta-halliae
Plants - Vascular	Aspidotis carlotta-halliae	Carlotta Hall's lace fern	PPADI07020	None	None	-	4.2	3512047	MORRO BAY NORTH	Unprocessed	Plants - Vascular - Pteridaceae - Aspidotis carlotta-halliae
Plants - Vascular	Aspidotis carlotta-halliae	Carlotta Hall's lace fern	PPADI07020	None	None	-	4.2	3512036	SAN LUIS OBISPO	Unprocessed	Plants - Vascular - Pteridaceae - Aspidotis carlotta-halliae
Plants - Vascular	Delphinium hutchinsoniae	Hutchinson's larkspur	PDRAN0B0V0	None	None	-	1B.2	3512036	SAN LUIS OBISPO	Unprocessed	Plants - Vascular - Ranunculaceae - Delphinium hutchinsoniae
Plants - Vascular	Delphinium parryi ssp. blochmaniae	dune larkspur	PDRAN0B1B1	None	None	-	1B.2	3512026	PISMO BEACH	Mapped	Plants - Vascular - Ranunculaceae - Delphinium parryi ssp. blochmaniae
Plants - Vascular	Delphinium parryi ssp. blochmaniae	dune larkspur	PDRAN0B1B1	None	None	-	1B.2	3512047	MORRO BAY NORTH	Mapped	Plants - Vascular - Ranunculaceae - Delphinium parryi ssp. blochmaniae
Plants - Vascular	Delphinium parryi ssp. blochmaniae	dune larkspur	PDRAN0B1B1	None	None	-	1B.2	3512037	MORRO BAY SOUTH	Mapped	Plants - Vascular - Ranunculaceae - Delphinium parryi ssp. blochmaniae
Plants - Vascular	Delphinium parryi ssp. eastwoodiae	Eastwoods larkspur	PDRAN0B1B2	None	None	-	1B.2	3512037	MORRO BAY SOUTH	Mapped and Unprocessed	Plants - Vascular - Ranunculaceae -

											Delphinium parryi ssp. eastwoodiae
Plants - Vascular	Delphinium parryi ssp. eastwoodiae	Eastwoods larkspur	PDRAN0B1B2	None	None	-	1B.2	3512047	MORRO BAY NORTH	Mapped	Plants - Vascular - Ranunculaceae - Delphinium parryi ssp. eastwoodiae
Plants - Vascular	Delphinium parryi ssp. eastwoodiae	Eastwoods larkspur	PDRAN0B1B2	None	None	-	1B.2	3512046	ATASCADERO	Mapped	Plants - Vascular - Ranunculaceae - Delphinium parryi ssp. eastwoodiae
Plants - Vascular	Delphinium parryi ssp. eastwoodiae	Eastwoods larkspur	PDRAN0B1B2	None	None	-	1B.2	3512036	SAN LUIS OBISPO	Mapped and Unprocessed	Plants - Vascular - Ranunculaceae - Delphinium parryi ssp. eastwoodiae
Plants - Vascular	Delphinium parryi ssp. eastwoodiae	Eastwoods larkspur	PDRAN0B1B2	None	None	-	1B.2	3512027	PORT SAN LUIS	Mapped	Plants - Vascular - Ranunculaceae - Delphinium parryi ssp. eastwoodiae
Plants - Vascular	Delphinium umbraculorum	umbrella larkspur	PDRAN0B1W0	None	None	-	1B.3	3512026	PISMO BEACH	Mapped	Plants - Vascular - Ranunculaceae - Delphinium umbraculorum
Plants - Vascular	Delphinium umbraculorum	umbrella larkspur	PDRAN0B1W0	None	None	-	1B.3	3512047	MORRO BAY NORTH	Mapped	Plants - Vascular - Ranunculaceae - Delphinium umbraculorum
Plants - Vascular	Ceanothus cuneatus var. fascicularis	Lompoc ceanothus	PDRHA04066	None	None	-	4.2	3512047	MORRO BAY NORTH	Unprocessed	Plants - Vascular - Rhamnaceae - Ceanothus cuneatus var. fascicularis
Plants - Vascular	Ceanothus cuneatus var. fascicularis	Lompoc ceanothus	PDRHA04066	None	None	-	4.2	3512037	MORRO BAY SOUTH	Unprocessed	Plants - Vascular - Rhamnaceae - Ceanothus cuneatus var. fascicularis
Plants - Vascular	Ceanothus cuneatus var. fascicularis	Lompoc ceanothus	PDRHA04066	None	None	-	4.2	3512026	PISMO BEACH	Unprocessed	Plants - Vascular - Rhamnaceae - Ceanothus cuneatus var. fascicularis
Plants - Vascular	Ceanothus cuneatus var. fascicularis	Lompoc ceanothus	PDRHA04066	None	None	-	4.2	3512027	PORT SAN LUIS	Unprocessed	Plants - Vascular - Rhamnaceae - Ceanothus cuneatus var. fascicularis
Plants - Vascular	Ceanothus cuneatus var. fascicularis	Lompoc ceanothus	PDRHA04066	None	None	-	4.2	3512036	SAN LUIS OBISPO	Unprocessed	Plants - Vascular - Rhamnaceae - Ceanothus cuneatus var. fascicularis
Plants - Vascular	Ceanothus impressus var. nipomensis	Nipomo Mesa ceanothus	PDRHA040L2	None	None	-	1B.2	3512026	PISMO BEACH	Mapped	Plants - Vascular - Rhamnaceae - Ceanothus impressus var. nipomensis
Plants - Vascular	Ceanothus thyrsiflorus var. obispoensis	San Luis Obispo ceanothus	PDRHA04461	None	None	-	1B.1	3512037	MORRO BAY SOUTH	Mapped and Unprocessed	Plants - Vascular - Rhamnaceae - Ceanothus thyrsiflorus var. obispoensis
Plants - Vascular	Cercocarpus betuloides var. blanchaeae	island mountain-mahogany	PDR0S08022	None	None	-	4.3	3512036	SAN LUIS OBISPO	Unprocessed	Plants - Vascular - Rosaceae - Cercocarpus betuloides var. blanchaeae
Plants - Vascular	Horkelia cuneata var. puberula	mesa horkelia	PDR0S0W045	None	None	-	1B.1	3512036	SAN LUIS OBISPO	Mapped	Plants - Vascular - Rosaceae - Horkelia cuneata var. puberula
Plants - Vascular	Horkelia cuneata var. puberula	mesa horkelia	PDR0S0W045	None	None	-	1B.1	3512027	PORT SAN LUIS	Mapped	Plants - Vascular - Rosaceae - Horkelia cuneata var. puberula
Plants - Vascular	Horkelia cuneata var. puberula	mesa horkelia	PDR0S0W045	None	None	-	1B.1	3512026	PISMO BEACH	Mapped and Unprocessed	Plants - Vascular - Rosaceae - Horkelia cuneata var. puberula
Plants - Vascular	Horkelia cuneata var. puberula	mesa horkelia	PDR0S0W045	None	None	-	1B.1	3512037	MORRO BAY SOUTH	Mapped and Unprocessed	Plants - Vascular - Rosaceae - Horkelia cuneata var. puberula
Plants - Vascular	Horkelia cuneata var. puberula	mesa horkelia	PDR0S0W045	None	None	-	1B.1	3512046	ATASCADERO	Mapped	Plants - Vascular - Rosaceae - Horkelia cuneata var. puberula
Plants - Vascular	Horkelia cuneata var. sericea	Kelloggs horkelia	PDR0S0W043	None	None	-	1B.1	3512047	MORRO BAY NORTH	Mapped	Plants - Vascular - Rosaceae - Horkelia cuneata var. sericea
Plants - Vascular	Horkelia cuneata var. sericea	Kelloggs horkelia	PDR0S0W043	None	None	-	1B.1	3512037	MORRO BAY SOUTH	Mapped and Unprocessed	Plants - Vascular - Rosaceae - Horkelia cuneata var. sericea
Plants - Vascular	Prunus fasciculata var. punctata	sand almond	PDR0S1C0E2	None	None	-	4.3	3512037	MORRO BAY SOUTH	Unprocessed	Plants - Vascular - Rosaceae - Prunus fasciculata var. punctata
Plants - Vascular	Galium cliftonsmithii	Santa Barbara bedstraw	PDRUB0N0J0	None	None	-	4.3	3512036	SAN LUIS OBISPO	Unprocessed	Plants - Vascular - Rubiaceae - Galium cliftonsmithii
Plants - Vascular	Scrophularia atrata	black-flowered figwort	PDSCR1S010	None	None	-	1B.2	3512026	PISMO BEACH	Mapped and Unprocessed	Plants - Vascular - Scrophulariaceae -

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

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

Location

San Luis Obispo County, California



Local office

Ventura Fish And Wildlife Office

☎ (805) 644-1766
📠 (805) 644-3958
✉ FW8VenturaSection7@FWS.Gov

2493 Portola Road, Suite B
Ventura, CA 93003-7726

Endangered species

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

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

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

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

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

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

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

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

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

Mammals

NAME	STATUS
Giant Kangaroo Rat <i>Dipodomys ingens</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6051	Endangered
Morro Bay Kangaroo Rat <i>Dipodomys heermanni morroensis</i> Wherever found There is final critical habitat for this species. Your location overlaps the critical habitat. https://ecos.fws.gov/ecp/species/6367	Endangered
San Joaquin Kit Fox <i>Vulpes macrotis mutica</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/2873	Endangered

Birds

NAME	STATUS
------	--------

California Condor <i>Gymnogyps californianus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8193	Endangered
California Least Tern <i>Sternula antillarum browni</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8104	Endangered
California Ridgway's Rail <i>Rallus obsoletus obsoletus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4240	Endangered
Least Bell's Vireo <i>Vireo bellii pusillus</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/5945	Endangered
Marbled Murrelet <i>Brachyramphus marmoratus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/4467	Threatened
Western Snowy Plover <i>Charadrius nivosus nivosus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8035	Threatened
Yellow-billed Cuckoo <i>Coccyzus americanus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/3911	Threatened

Reptiles

NAME	STATUS
Southwestern Pond Turtle <i>Actinemys pallida</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4768	Proposed Threatened

Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2891	Threatened
Foothill Yellow-legged Frog <i>Rana boylei</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/5133	Endangered
Western Spadefoot <i>Spea hammondi</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/5425	Proposed Threatened

Fishes

NAME	STATUS
------	--------

Tidewater Goby *Eucyclogobius newberryi*

Endangered

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/57>

Snails

NAME

STATUS

Morro Shoulderband (=banded Dune) Snail *Helminthoglypta walkeriana*

Threatened

Wherever found

There is **final** critical habitat for this species. Your location overlaps the critical habitat.

<https://ecos.fws.gov/ecp/species/2309>

Insects

NAME

STATUS

Monarch Butterfly *Danaus plexippus*

Proposed Threatened

Wherever found

There is **proposed** critical habitat for this species.

<https://ecos.fws.gov/ecp/species/9743>

Crustaceans

NAME

STATUS

Vernal Pool Fairy Shrimp *Branchinecta lynchi*

Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/498>

Flowering Plants

NAME

STATUS

California Jewelflower *Caulanthus californicus*

Endangered

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/4599>

Chorro Creek Bog Thistle *Cirsium fontinale* var. *obispoense*

Endangered

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/5991>

Indian Knob Mountainbalm *Eriodictyon altissimum*

Endangered

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/1261>

Morro Manzanita *Arctostaphylos morroensis*

Threatened

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/2934>

Salt Marsh Bird's-beak *Cordylanthus maritimus* ssp. *maritimus*

Endangered

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/6447>

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/1334>

Critical habitats

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

This location overlaps the critical habitat for the following species:

NAME	TYPE
Morro Bay Kangaroo Rat <i>Dipodomys heermanni morroensis</i> https://ecos.fws.gov/ecp/species/6367#crithab	Final
Morro Shoulderband (=banded Dune) Snail <i>Helminthoglypta walkeriana</i> https://ecos.fws.gov/ecp/species/2309#crithab	Final

Bald & Golden Eagles

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#).

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

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Jan 1 to Aug 31
Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your

Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

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

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

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

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

Breeding Season (■)

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

Survey Effort (|)

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

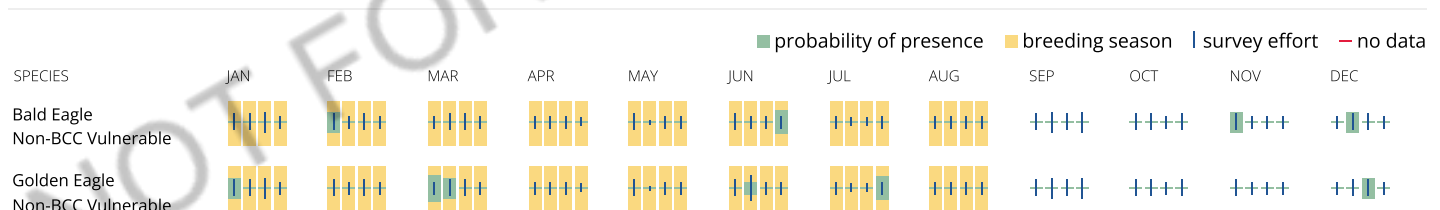
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

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



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply). To see a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

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

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

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the [Eagle Act](#) should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

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

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

NAME	BREEDING SEASON
Allen's Hummingbird <i>Selasphorus sasin</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9637	Breeds Feb 1 to Jul 15
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Jan 1 to Aug 31
Belding's Savannah Sparrow <i>Passerculus sandwichensis beldingi</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8	Breeds Apr 1 to Aug 15
Black Oystercatcher <i>Haematopus bachmani</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9591	Breeds Apr 15 to Oct 31
Black Swift <i>Cypseloides niger</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8878	Breeds Jun 15 to Sep 10

Black Turnstone <i>Arenaria melanocephala</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Black-chinned Sparrow <i>Spizella atrogularis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9447	Breeds Apr 15 to Jul 31
Brandt's Cormorant <i>Urile penicillatus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 15 to Sep 15
Bullock's Oriole <i>Icterus bullockii</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Mar 21 to Jul 25
California Gull <i>Larus californicus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 1 to Jul 31
California Thrasher <i>Toxostoma redivivum</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jan 1 to Jul 31
Clark's Grebe <i>Aechmophorus clarkii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jun 1 to Aug 31
Common Yellowthroat <i>Geothlypis trichas sinuosa</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/2084	Breeds May 20 to Jul 31
Elegant Tern <i>Thalasseus elegans</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8561	Breeds Apr 5 to Aug 5
Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 31
Heermann's Gull <i>Larus heermanni</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 31
Lawrence's Goldfinch <i>Spinus lawrencei</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9464	Breeds Mar 20 to Sep 20
Marbled Godwit <i>Limosa fedoa</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9481	Breeds elsewhere

<p>Northern Harrier <i>Circus hudsonius</i></p> <p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p> <p>https://ecos.fws.gov/ecp/species/8350</p>	Breeds Apr 1 to Sep 15
<p>Nuttall's Woodpecker <i>Dryobates nuttallii</i></p> <p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p> <p>https://ecos.fws.gov/ecp/species/9410</p>	Breeds Apr 1 to Jul 20
<p>Oak Titmouse <i>Baeolophus inornatus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9656</p>	Breeds Mar 15 to Jul 15
<p>Olive-sided Flycatcher <i>Contopus cooperi</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/3914</p>	Breeds May 20 to Aug 31
<p>Santa Barbara Song Sparrow <i>Melospiza melodia graminea</i></p> <p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p> <p>https://ecos.fws.gov/ecp/species/5513</p>	Breeds Mar 1 to Sep 5
<p>Scripps's Murrelet <i>Synthliboramphus scrippsi</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Feb 20 to Jul 31
<p>Short-billed Dowitcher <i>Limnodromus griseus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9480</p>	Breeds elsewhere
<p>Tricolored Blackbird <i>Agelaius tricolor</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/3910</p>	Breeds Mar 15 to Aug 10
<p>Western Grebe <i>Aechmophorus occidentalis</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/6743</p>	Breeds Jun 1 to Aug 31
<p>Western Gull <i>Larus occidentalis</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Apr 21 to Aug 25
<p>Western Screech-owl <i>Megascops kennicottii cardonensis</i></p> <p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p>	Breeds Mar 1 to Jun 30
<p>Willet <i>Tringa semipalmata</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds elsewhere
<p>Wrentit <i>Chamaea fasciata</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Mar 15 to Aug 10

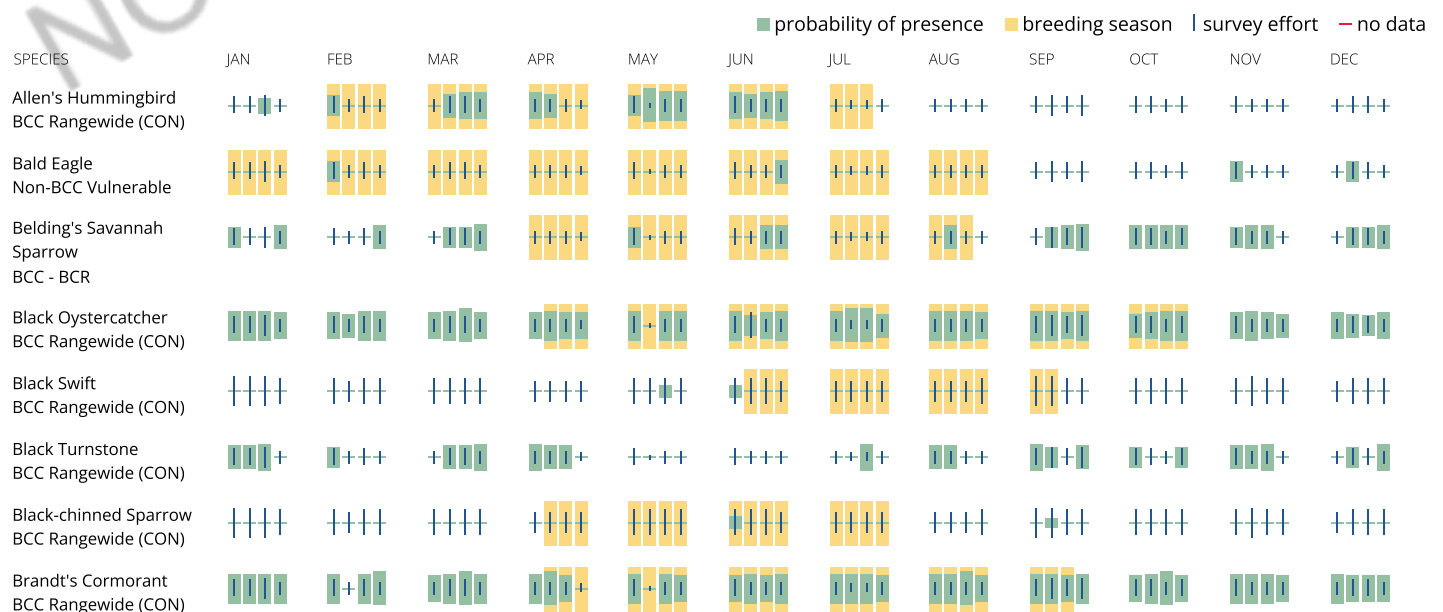
The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read ["Supplemental Information on Migratory Birds and Eagles"](#), specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

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

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

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

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



Bullock's Oriole BCC - BCR	++++	++++	+++	++++	++++	++++	++++	++++	++++	++++	++++	++++
California Gull BCC Rangwide (CON)	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
California Thrasher BCC Rangwide (CON)	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
Clark's Grebe BCC Rangwide (CON)	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Common Yellowthroat BCC - BCR	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
Elegant Tern BCC - BCR	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
Golden Eagle Non-BCC Vulnerable	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
Heermann's Gull BCC Rangwide (CON)	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
Lawrence's Goldfinch BCC Rangwide (CON)	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
Marbled Godwit BCC Rangwide (CON)	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
Northern Harrier BCC - BCR	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
Nuttall's Woodpecker BCC - BCR	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
Oak Titmouse BCC Rangwide (CON)	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
Olive-sided Flycatcher BCC Rangwide (CON)	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
Santa Barbara Song Sparrow BCC - BCR	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
Scripps's Murrelet BCC Rangwide (CON)	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Short-billed Dowitcher BCC Rangwide (CON)	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
Tricolored Blackbird BCC Rangwide (CON)	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
Western Grebe BCC Rangwide (CON)	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
Western Gull BCC Rangwide (CON)	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
Western Screech-owl BCC - BCR	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
Willet BCC Rangwide (CON)	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
Wrentit BCC Rangwide (CON)	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++

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

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

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

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

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

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

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

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

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

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

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

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

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

Details about birds that are potentially affected by offshore projects

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

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

What if I have eagles on my list?

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

Proper Interpretation and Use of Your Migratory Bird Report

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

Facilities

National Wildlife Refuge lands

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

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

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

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

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

This location overlaps the following wetlands:

FRESHWATER EMERGENT WETLAND

[PEM1Cx](#)

[PEM1Fx](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

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

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

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

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

Data exclusions

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

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving

modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION



Attachment C: Site Photographs



Photograph 1: Northwest facing at turn on Travis Drive.



Photograph 2: East end of Travis Drive with Morro Manzanita in background and Black sage scrub in the foreground, adjacent to existing residences.



Photograph 3: North facing showing habitat, including Coast Live Oak, Morro Manzanita and Black sage behind housing along Travis Drive.



Photograph 4: Facing northwest within the proposed alignment where sensitive habitat exists behind residences.



Photograph 5: Area between houses at northeast end of Travis Drive.



Photograph 6: East facing along Rodman Drive with Eucalyptus grove.



Photograph 7: East facing along Alamo Drive.



Photograph 8: East facing at end of Rodman Drive showing native habitat.



Photograph 9: East facing at end of Travis Drive looking onto critical habitat for Morro Manzanita.



Photograph 10: North facing along Travis Drive at eastern end.



Photograph 11: Habitat between houses on Rodman Drive.



Photograph 12: Morro Manzanita, Coast Live oak and Chilean sea fig between houses along Rodman Drive and behind houses on Travis Drive.



Photograph 13: Coyote brush and Chilean sea fig along Rodman Drive.



Photograph 14: Facing south along Rodman Drive.



Photograph 15: Facing northeast at the corner of Pecho Valley Road and Rodman Drive.



Photograph 16: Northeast facing showing drainage feature along Pecho Valley Road.



Photograph 17: Drainage culvert along Pecho Valley Road.



Photograph 18: USFWS designated critical habitat for Morro Bay kangaroo rat along Pecho Valley Road.



Photograph 19: North facing from end of Madera Street.



Photograph 20: Southeast facing showing San Ricardo Lane from Madeira Street.



Photograph 21: Northwest facing from southeast end of San Sebastian Lane.



Photograph 22: Northwest facing on San Domingo Avenue cul-de-sac.



Photograph 23: Bowie Drive facing west.



Photograph 24: San Jacinto Drive facing southwest.



Photograph 25: Houston Drive facing north from Rodman Drive.



Photograph 26: Travis Drive facing south at Houston Drive.



Photograph 27: Crockett Circle facing northeast.



Photograph 28: Austin Court facing west.



Photograph 29: Crockett Circle at the corner of Travis Drive facing southwest.



Photograph 30: Facing southeast from Sea Horse Lane with Morro Manzanita, Coast Live Oak and Black sage vegetation behind houses along Travis Drive.



Photograph 31: Facing southeast from Sea Horse Lane, Morro Manzanita, Coast Live Oak and Black sage vegetation, behind houses along Travis Drive.



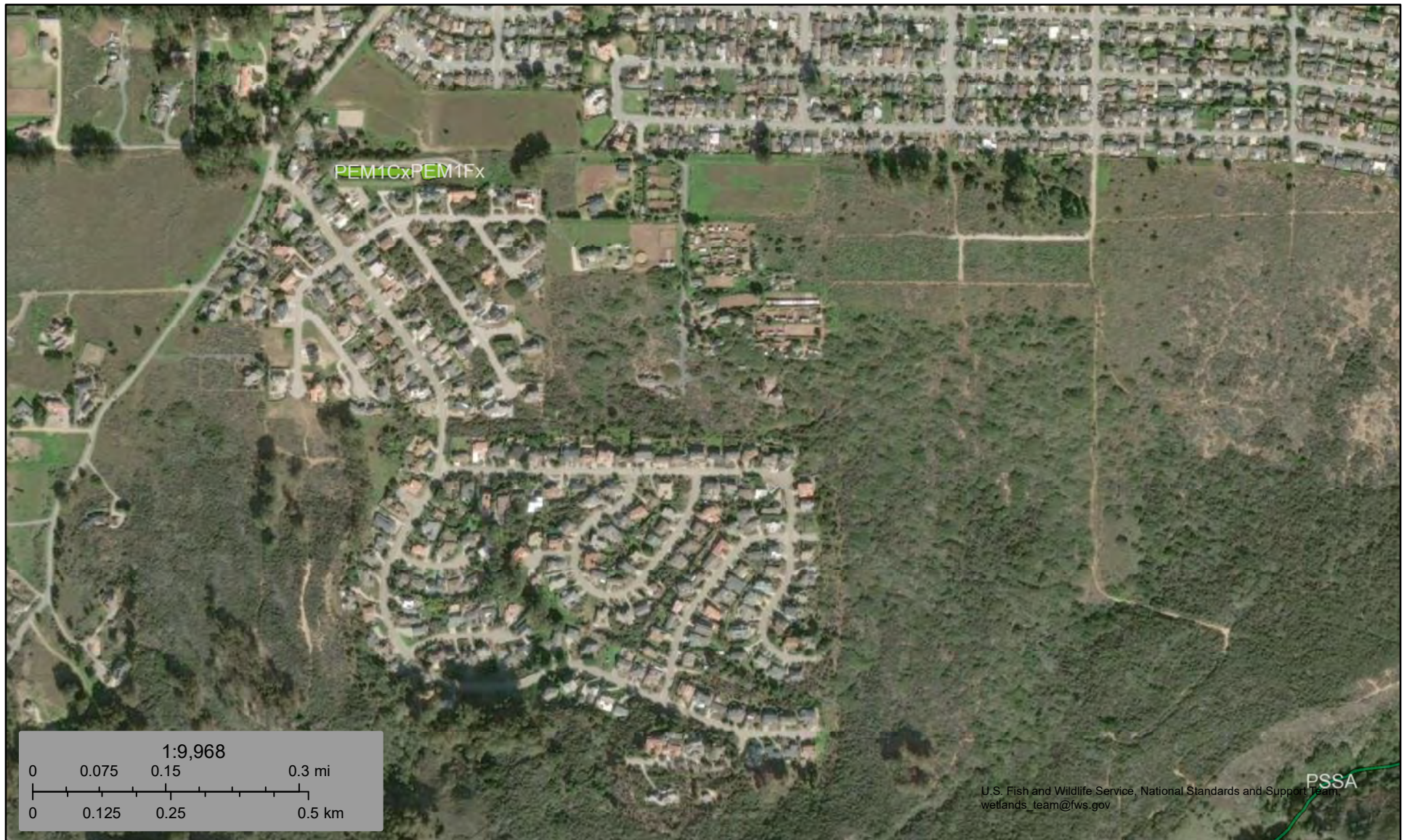
Attachment D: USFWS National Wetlands Inventory Map



U.S. Fish and Wildlife Service

National Wetlands Inventory

Cabrillo Estates



U.S. Fish and Wildlife Service, National Standards and Support Team
wetlands_team@fws.gov

January 5, 2025

Wetlands

	Estuarine and Marine Deepwater		Freshwater Emergent Wetland		Lake
	Estuarine and Marine Wetland		Freshwater Forested/Shrub Wetland		Other
			Freshwater Pond		Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.



Attachment E: Soils Map and Report

Soil Map—San Luis Obispo County, California, Coastal Part (Cabrillo Estates)



Map Scale: 1:8,920 if printed on A landscape (11" x 8.5") sheet.

0 100 200 400 600 Meters

0 400 800 1600 2400 Feet

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



**Natural Resources
Conservation Service**


Web Soil Survey
National Cooperative Soil Survey

12/9/2024
Page 1 of 3

Soil Map—San Luis Obispo County, California, Coastal Part (Cabrillo Estates)

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

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

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

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

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

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

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

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

Soil Survey Area: San Luis Obispo County, California, Coastal Part

Survey Area Data: Version 17, Sep 8, 2024

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

Date(s) aerial images were photographed: Mar 12, 2022—Apr 12, 2022

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
104	Baywood fine sand, 2 to 9 percent slopes	63.3	21.9%
105	Baywood fine sand, 9 to 15 percent slopes	91.5	31.7%
106	Baywood fine sand, 15 to 30 percent slopes	134.0	46.4%
Totals for Area of Interest		288.9	100.0%

Attachment 4: Cost Opinion

OPINION OF PROBABLE CONSTRUCTION COST



Project: Septic to Sewer Conceptual Design, Cabrillo Estates Property Owners Association

Prepared By: RSQ

Date Prepared: 4/18/2025

MNS Proj. No. CEPOA.240414.00

Building, Area: Cabrillo Estates, Los Osos, County of San Luis Obispo

Estimate Type:

☒ Conceptual

☐ Construction

☐ Preliminary (w/o plans)☐ Change Order

	Design Development @	% complete
100%		
90%		
80%		
70%		
60%		
50%		
40%		
30%		
20%		
10%		
0%		

Current at ENR

Previous ENR

Months to Midpoint of Construction	40
------------------------------------	----

Item No.	Description	Qty.	Units	Materials		Installation		Sub-Contractor		Total
				\$/Unit	Total	\$/Unit	Total	\$/Unit	Total	
1	Mobilization & Demobilization	1	LS	\$50,000.00	\$50,000.00	\$150,000.00	\$150,000.00			\$200,000.00
2	Traffic Control	1	LS	\$20,000.00	\$20,000.00	\$20,000.00	\$20,000.00			\$40,000.00
3	Install 8-inch PVC Gravity Sewer Pipe, Open Cut	16140	LF	\$100.00	\$1,614,000.00	\$100.00	\$1,614,000.00			\$3,228,000.00
4	Install 4-inch PVC Gravity Sewer Lateral and Cleanout, Open Cut	266	EA	\$1,500.00	\$399,000.00	\$1,000.00	\$266,000.00			\$665,000.00
5	Install 4-foot Standard Concrete Manhole	48	EA	\$5,000.00	\$240,000.00	\$4,000.00	\$192,000.00			\$432,000.00
6	Install Cleanout	15	EA	\$1,500.00	\$22,500.00	\$1,000.00	\$15,000.00			\$37,500.00
7	Miscellaneous Road Repair	1	LS	\$50,000.00	\$50,000.00	\$50,000.00	\$50,000.00			\$100,000.00
	Subtotals			\$2,395,500.00		\$2,307,000.00				\$4,702,500.00
	Division 1 Costs	@	2.00%	\$47,910.00		\$46,140.00				\$94,050.00
	Subtotals			\$2,443,410.00		\$2,353,140.00				\$4,796,550.00
	Taxes - Materials Costs	@	8.75%	\$213,798.38						\$213,798.38
	Subtotals			\$2,657,208.38		\$2,353,140.00				\$5,010,348.38
	Contractor OH&P	@	15.00%	\$398,581.26		\$352,971.00				\$751,552.26
	Subtotals			\$3,055,789.63		\$2,706,111.00				\$5,761,900.63
	Estimate Contingency	@	30.00%	\$916,736.89		\$811,833.30				\$1,728,570.19
	Subtotals			\$3,972,526.52		\$3,517,944.30				\$7,490,470.82
	Escalate to Midpoint of Construct (3% per Year)	@	10.4%	\$411,342.34		\$364,271.81				\$775,614.16
	Subtotals			\$4,383,868.86		\$3,882,216.11				\$8,266,084.98
	Estimated Bid Cost									\$8,266,084.98
	Total Estimate									\$8,270,000.00

Attachment 5: Implementation Schedule

Cabrillo Estates Property Owner's Association
Septic to Sewer Conceptual Design Report and Implementation Cost Opinion

