

Appendix E

Biological Resources
Database Information



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Ventura Fish And Wildlife Office
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In Reply Refer To:
Consultation Code: 08EVEN00-2019-SLI-0630
Event Code: 08EVEN00-2019-E-01768
Project Name: Cal Poly SLO Master Plan Update EIR

July 02, 2019

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed list identifies species listed as threatened and endangered, species proposed for listing as threatened or endangered, designated and proposed critical habitat, and species that are candidates for listing that may occur within the boundary of the area you have indicated using the U.S. Fish and Wildlife Service's (Service) Information Planning and Conservation System (IPaC). The species list fulfills the requirements under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.). Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the species list should be verified after 90 days. We recommend that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists following the same process you used to receive the enclosed list. Please include the Consultation Tracking Number in the header of this letter with any correspondence about the species list.

Due to staff shortages and excessive workload, we are unable to provide an official list more specific to your area. Numerous other sources of information are available for you to narrow the list to the habitats and conditions of the site in which you are interested. For example, we recommend conducting a biological site assessment or surveys for plants and animals that could help refine the list.

If a Federal agency is involved in the project, that agency has the responsibility to review its proposed activities and determine whether any listed species may be affected. If the project is a major construction project*, the Federal agency has the responsibility to prepare a biological assessment to make a determination of the effects of the action on the listed species or critical habitat. If the Federal agency determines that a listed species or critical habitat is likely to be adversely affected, it should request, in writing through our office, formal consultation pursuant to section 7 of the Act. Informal consultation may be used to exchange information and resolve conflicts with respect to threatened or endangered species or their critical habitat prior to a

written request for formal consultation. During this review process, the Federal agency may engage in planning efforts but may not make any irreversible commitment of resources. Such a commitment could constitute a violation of section 7(d) of the Act.

Federal agencies are required to confer with the Service, pursuant to section 7(a)(4) of the Act, when an agency action is likely to jeopardize the continued existence of any proposed species or result in the destruction or adverse modification of proposed critical habitat (50 CFR 402.10(a)). A request for formal conference must be in writing and should include the same information that would be provided for a request for formal consultation. Conferences can also include discussions between the Service and the Federal agency to identify and resolve potential conflicts between an action and proposed species or proposed critical habitat early in the decision-making process. The Service recommends ways to minimize or avoid adverse effects of the action. These recommendations are advisory because the jeopardy prohibition of section 7(a)(2) of the Act does not apply until the species is listed or the proposed critical habitat is designated. The conference process fulfills the need to inform Federal agencies of possible steps that an agency might take at an early stage to adjust its actions to avoid jeopardizing a proposed species.

When a proposed species or proposed critical habitat may be affected by an action, the lead Federal agency may elect to enter into formal conference with the Service even if the action is not likely to jeopardize or result in the destruction or adverse modification of proposed critical habitat. If the proposed species is listed or the proposed critical habitat is designated after completion of the conference, the Federal agency may ask the Service, in writing, to confirm the conference as a formal consultation. If the Service reviews the proposed action and finds that no significant changes in the action as planned or in the information used during the conference have occurred, the Service will confirm the conference as a formal consultation on the project and no further section 7 consultation will be necessary. Use of the formal conference process in this manner can prevent delays in the event the proposed species is listed or the proposed critical habitat is designated during project development or implementation.

Candidate species are those species presently under review by the Service for consideration for Federal listing. Candidate species should be considered in the planning process because they may become listed or proposed for listing prior to project completion. Preparation of a biological assessment, as described in section 7(c) of the Act, is not required for candidate species. If early evaluation of your project indicates that it is likely to affect a candidate species, you may wish to request technical assistance from this office.

Only listed species receive protection under the Act. However, sensitive species should be considered in the planning process in the event they become listed or proposed for listing prior to project completion. We recommend that you review information in the California Department of Fish and Wildlife's Natural Diversity Data Base. You can contact the California Department of Fish and Wildlife at (916) 324-3812 for information on other sensitive species that may occur in this area.

[*A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.]

Attachment(s):

- Official Species List
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Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Ventura Fish And Wildlife Office

2493 Portola Road, Suite B

Ventura, CA 93003-7726

(805) 644-1766

Project Summary

Consultation Code: 08EVEN00-2019-SLI-0630

Event Code: 08EVEN00-2019-E-01768

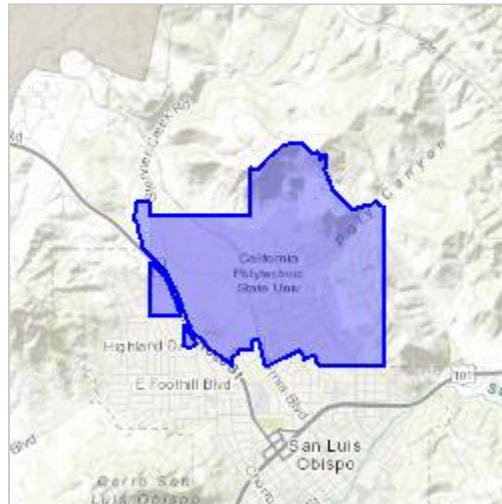
Project Name: Cal Poly SLO Master Plan Update EIR

Project Type: DEVELOPMENT

Project Description: EIR to analyze the Cal Poly SLO Master Plan

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/35.30803556740676N120.66494288736459W>



Counties: San Luis Obispo, CA

Endangered Species Act Species

There is a total of 17 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. [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.

Mammals

NAME	STATUS
Giant Kangaroo Rat <i>Dipodomys ingens</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6051	Endangered
San Joaquin Kit Fox <i>Vulpes macrotis mutica</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2873	Endangered

Birds

NAME	STATUS
California Clapper Rail <i>Rallus longirostris obsoletus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4240	Endangered
California Condor <i>Gymnogyps californianus</i> Population: U.S.A. only, except where listed as an experimental population There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8193	Endangered
Least Bell's Vireo <i>Vireo bellii pusillus</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5945	Endangered
Southwestern Willow Flycatcher <i>Empidonax traillii extimus</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6749	Endangered

Reptiles

NAME	STATUS
Blunt-nosed Leopard Lizard <i>Gambelia silus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/625	Endangered

Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> There is final critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander <i>Ambystoma californiense</i> Population: U.S.A. (Central CA DPS) There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2076	Threatened

Insects

NAME	STATUS
Kern Primrose Sphinx Moth <i>Euproserpinus euterpe</i> There is proposed critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/7881	Threatened

Crustaceans

NAME	STATUS
Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened

Flowering Plants

NAME	STATUS
California Jewelflower <i>Caulanthus californicus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4599	Endangered
Chorro Creek Bog Thistle <i>Cirsium fontinale</i> var. <i>obispoense</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5991	Endangered
Marsh Sandwort <i>Arenaria paludicola</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2229	Endangered
Morro Manzanita <i>Arctostaphylos morroensis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2934	Threatened
Pismo Clarkia <i>Clarkia speciosa</i> ssp. <i>immaculata</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5936	Endangered
Spreading Navarretia <i>Navarretia fossalis</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1334	Threatened

Critical habitats

There is 1 critical habitat wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> https://ecos.fws.gov/ecp/species/2891#crithab	Final



Selected Elements by Element Code
California Department of Fish and Wildlife
California Natural Diversity Database



Query Criteria: Imported file selection

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
AAAAD02170	<i>Batrachoseps minor</i> lesser slender salamander	None	None	G1	S1	SSC
AAAAF02032	<i>Taricha torosa</i> Coast Range newt	None	None	G4	S4	SSC
AAABH01022	<i>Rana draytonii</i> California red-legged frog	Threatened	None	G2G3	S2S3	SSC
AAABH01050	<i>Rana boylei</i> foothill yellow-legged frog	None	Candidate Threatened	G3	S3	SSC
ABNKC06010	<i>Elanus leucurus</i> white-tailed kite	None	None	G5	S3S4	FP
ABNKC19120	<i>Buteo regalis</i> ferruginous hawk	None	None	G4	S3S4	WL
ABNKD06090	<i>Falco mexicanus</i> prairie falcon	None	None	G5	S4	WL
ABNSB10010	<i>Athene cunicularia</i> burrowing owl	None	None	G4	S3	SSC
ABPAT02011	<i>Eremophila alpestris actia</i> California horned lark	None	None	G5T4Q	S4	WL
ABPBR01030	<i>Lanius ludovicianus</i> loggerhead shrike	None	None	G4	S4	SSC
ABPBX00020	<i>Agelaius tricolor</i> tricolored blackbird	None	Threatened	G2G3	S1S2	SSC
AFCHA0209H	<i>Oncorhynchus mykiss irideus pop. 9</i> steelhead - south-central California coast DPS	Threatened	None	G5T2Q	S2	
AMACC08010	<i>Corynorhinus townsendii</i> Townsend's big-eared bat	None	None	G3G4	S2	SSC
AMACC10010	<i>Antrozous pallidus</i> pallid bat	None	None	G5	S3	SSC
AMACD02011	<i>Eumops perotis californicus</i> western mastiff bat	None	None	G5T4	S3S4	SSC
AMAJF04010	<i>Taxidea taxus</i> American badger	None	None	G5	S3	SSC
ARAAD02030	<i>Emys marmorata</i> western pond turtle	None	None	G3G4	S3	SSC
ARACC01020	<i>Anniella pulchra</i> northern California legless lizard	None	None	G3	S3	SSC
ARACF12100	<i>Phrynosoma blainvillii</i> coast horned lizard	None	None	G3G4	S3S4	SSC
ICBRA03030	<i>Branchinecta lynchi</i> vernal pool fairy shrimp	Threatened	None	G3	S3	



Selected Elements by Element Code
 California Department of Fish and Wildlife
 California Natural Diversity Database



Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
PDAP10Z043	<i>Eryngium aristulatum</i> var. <i>hooveri</i> Hoover's button-celery	None	None	G5T1	S1	1B.1
PDAP11Z0D0	<i>Sanicula maritima</i> adobe sanicle	None	Rare	G2	S2	1B.1
PDAST2E162	<i>Cirsium fontinale</i> var. <i>obispoense</i> San Luis Obispo fountain thistle	Endangered	Endangered	G2T2	S2	1B.2
PDAST2E1Z6	<i>Cirsium occidentale</i> var. <i>lucianum</i> Cuesta Ridge thistle	None	None	G3G4T2	S2	1B.2
PDAST4R0P1	<i>Centromadia parryi</i> ssp. <i>congdonii</i> Congdon's tarplant	None	None	G3T1T2	S1S2	1B.1
PDAST5N090	<i>Layia jonesii</i> Jones' layia	None	None	G2	S2	1B.2
PDAST8H060	<i>Senecio aphanactis</i> chaparral ragwort	None	None	G3	S2	2B.2
PDBOR0V170	<i>Plagiobothrys uncinatus</i> hooked popcornflower	None	None	G2	S2	1B.2
PDBRA2G012	<i>Streptanthus albidus</i> ssp. <i>peramoenus</i> most beautiful jewelflower	None	None	G2T2	S2	1B.2
PDCRA04011	<i>Dudleya abramsii</i> ssp. <i>bettinae</i> Betty's dudleya	None	None	G4T2	S2	1B.2
PDCRA04012	<i>Dudleya abramsii</i> ssp. <i>murina</i> mouse-gray dudleya	None	None	G4T2	S2	1B.3
PDCRA04051	<i>Dudleya blochmaniae</i> ssp. <i>blochmaniae</i> Blochman's dudleya	None	None	G3T2	S2	1B.1
PDERI040N0	<i>Arctostaphylos luciana</i> Santa Lucia manzanita	None	None	G2	S2	1B.2
PDERI04140	<i>Arctostaphylos pechoensis</i> Pecho manzanita	None	None	G2	S2	1B.2
PDERI042Z0	<i>Arctostaphylos pilosula</i> Santa Margarita manzanita	None	None	G2?	S2?	1B.2
PDFAB0F2X3	<i>Astragalus didymocarpus</i> var. <i>milesianus</i> Miles' milk-vetch	None	None	G5T2	S2	1B.2
PDFAB400R5	<i>Trifolium hydrophilum</i> saline clover	None	None	G2	S2	1B.2
PDLAM180H0	<i>Monardella palmeri</i> Palmer's monardella	None	None	G2	S2	1B.2
PDMAL110A1	<i>Sidalcea hickmanii</i> ssp. <i>anomala</i> Cuesta Pass checkerbloom	None	Rare	G3T1	S1	1B.2
PDONA05111	<i>Clarkia speciosa</i> ssp. <i>immaculata</i> Pismo clarkia	Endangered	Rare	G4T1	S1	1B.1
PDPGN04050	<i>Chorizanthe breweri</i> Brewer's spineflower	None	None	G3	S3	1B.3



Selected Elements by Element Code
California Department of Fish and Wildlife
California Natural Diversity Database



Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
PDRAN0B1B2	<i>Delphinium parryi ssp. eastwoodiae</i> Eastwood's larkspur	None	None	G4T2	S2	1B.2
PDROS0W045	<i>Horkelia cuneata var. puberula</i> mesa horkelia	None	None	G4T1	S1	1B.1
PDSCR0D453	<i>Castilleja densiflora var. obispoensis</i> San Luis Obispo owl's-clover	None	None	G5T2	S2	1B.2
PMCYP039J0	<i>Carex obispoensis</i> San Luis Obispo sedge	None	None	G3?	S3?	1B.2
PMLIL0D110	<i>Calochortus obispoensis</i> San Luis mariposa-lily	None	None	G2	S2	1B.2
PMLIL0D170	<i>Calochortus simulans</i> La Panza mariposa-lily	None	None	G2	S2	1B.3
PMLIL0G042	<i>Chlorogalum pomeridianum var. minus</i> dwarf soaproot	None	None	G5T3	S3	1B.2
PMLILOV0L0	<i>Fritillaria viridea</i> San Benito fritillary	None	None	G2	S2	1B.2
PMLILOV0N0	<i>Fritillaria ojaiensis</i> Ojai fritillary	None	None	G3	S3	1B.2
PMPOA040M0	<i>Agrostis hooveri</i> Hoover's bent grass	None	None	G2	S2	1B.2

Record Count: 51

*The database used to provide updates to the Online Inventory is under construction. [View updates and changes made since May 2019 here.](#)

Plant List

73 matches found. [Click on scientific name for details](#)

Search Criteria

California Rare Plant Rank is one of [1A, 1B, 2A, 2B], Found in Quads 3512047, 3512046, 3512045, 3512037, 3512036, 3512035, 3512027 3512026 and 3512025;

[Modify Search Criteria](#) [Export to Excel](#) [Modify Columns](#) [Modify Sort](#) [Display Photos](#)

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Listing Status	Federal Listing Status
Agrostis hooveri	Hoover's bent grass	Poaceae	perennial herb	Apr-Jul	1B.2		
Arctostaphylos cruzensis	Arroyo de la Cruz manzanita	Ericaceae	perennial evergreen shrub	Dec-Mar	1B.2		
Arctostaphylos luciana	Santa Lucia manzanita	Ericaceae	perennial evergreen shrub	Dec-Mar	1B.2		
Arctostaphylos morroensis	Morro manzanita	Ericaceae	perennial evergreen shrub	Dec-Mar	1B.1		FT
Arctostaphylos osoensis	Oso manzanita	Ericaceae	perennial evergreen shrub	Feb-Mar	1B.2		
Arctostaphylos pechoensis	Pecho manzanita	Ericaceae	perennial evergreen shrub	Nov-Mar	1B.2		
Arctostaphylos pilosula	Santa Margarita manzanita	Ericaceae	perennial evergreen shrub	Dec-May	1B.2		
Arctostaphylos rudis	sand mesa manzanita	Ericaceae	perennial evergreen shrub	Nov-Feb	1B.2		
Arctostaphylos tomentosa ssp. dacticola	dacite manzanita	Ericaceae	perennial evergreen shrub	Mar-May	1B.1		
Arenaria paludicola	marsh sandwort	Caryophyllaceae	perennial stoloniferous herb	May-Aug	1B.1	CE	FE
Astragalus didymocarpus var. milesianus	Miles' milk-vetch	Fabaceae	annual herb	Mar-Jun	1B.2		
Atriplex coulteri	Coulter's saltbush	Chenopodiaceae	perennial herb	Mar-Oct	1B.2		
Bryoria spiralis	twisted horsehair lichen	Parmeliaceae	fruticose lichen (epiphytic)		1B.1		
Calochortus obispoensis	San Luis mariposa lily	Liliaceae	perennial bulbiferous herb	May-Jul	1B.2		
Calochortus simulans	La Panza mariposa lily	Liliaceae	perennial bulbiferous herb	Apr-Jun	1B.3		
Calycadenia villosa	dwarf calycadenia	Asteraceae	annual herb	May-Oct	1B.1		
Camissoniopsis hardhamiae	Hardham's evening-primrose	Onagraceae	annual herb	Mar-May	1B.2		
Carex obispoensis	San Luis Obispo sedge	Cyperaceae	perennial herb	Apr-Jun	1B.2		
Castilleja densiflora var. obispoensis	San Luis Obispo owl's-clover	Orobanchaceae	annual herb (hemiparasitic)	Mar-May	1B.2		
Ceanothus impressus var. nipomensis	Nipomo Mesa ceanothus	Rhamnaceae	perennial shrub	Feb-Apr	1B.2		
Ceanothus thrysiflorus var. obispoensis	San Luis Obispo ceanothus	Rhamnaceae	perennial shrub	Jun	1B.1		
Centromadia parryi ssp. congdonii	Congdon's tarplant	Asteraceae	annual herb	May-Oct(Nov)	1B.1		
Chenopodium littoreum	coastal goosefoot	Chenopodiaceae	annual herb	Apr-Aug	1B.2		
Chlorogalum pomeridianum var. minus	dwarf soaproot	Agavaceae	perennial bulbiferous herb	May-Aug	1B.2		
Chloropyron maritimum ssp. maritimum	salt marsh bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	May-Oct(Nov)	1B.2	CE	FE
Chorizanthe breweri	Brewer's spineflower	Polygonaceae	annual herb	Apr-Aug	1B.3		
Chorizanthe rectispina	straight-awned spineflower	Polygonaceae	annual herb	Apr-Jul	1B.3		
Cirsium fontinale var. obispoense	San Luis Obispo fountain thistle	Asteraceae	perennial herb	Feb-Jul(Aug-Sep)	1B.2	CE	FE

Cirsium occidentale var. lucianum	Cuesta Ridge thistle	Asteraceae	perennial herb	Apr-Jun	1B.2		
Cirsium rhotophilum	Surf thistle	Asteraceae	perennial herb	Apr-Jun	1B.2	CT	
Cirsium scariosum var. loncholepis	La Graciosa thistle	Asteraceae	perennial herb	May-Aug	1B.1	CT	FE
Cladonia firma	popcorn lichen	Cladoniaceae	squamulose lichen (terricolous)		2B.1		
Clarkia speciosa ssp. immaculata	Pismo clarkia	Onagraceae	annual herb	May-Jul	1B.1	CR	FE
Delphinium parryi ssp. blochmaniae	dune larkspur	Ranunculaceae	perennial herb	Apr-Jun	1B.2		
Delphinium parryi ssp. eastwoodiae	Eastwood's larkspur	Ranunculaceae	perennial herb	(Feb)Mar-Mar	1B.2		
Delphinium umbracolorum	umbrella larkspur	Ranunculaceae	perennial herb	Apr-Jun	1B.3		
Dithyrea maritima	beach spectaclepod	Brassicaceae	perennial rhizomatous herb	Mar-May	1B.1	CT	
Dudleya abramsii ssp. bettinae	Betty's dudleya	Crassulaceae	perennial herb	May-Jul	1B.2		
Dudleya abramsii ssp. murina	mouse-gray dudleya	Crassulaceae	perennial leaf succulent	May-Jun	1B.3		
Dudleya blochmaniae ssp. blochmaniae	Blochman's dudleya	Crassulaceae	perennial herb	Apr-Jun	1B.1		
Eriastrum luteum	yellow-flowered eriastrum	Polemoniaceae	annual herb	May-Jun	1B.2		
Erigeron blochmaniae	Blochman's leafy daisy	Asteraceae	perennial rhizomatous herb	Jun-Aug	1B.2		
Eriodictyon altissimum	Indian Knob mountainbalm	Namaceae	perennial evergreen shrub	Mar-Jun	1B.1	CE	FE
Eryngium aristulatum var. hooveri	Hoover's button-celery	Apiaceae	annual / perennial herb	(Jun)Jul(Aug)	1B.1		
Extriplex joaquinana	San Joaquin spearscale	Chenopodiaceae	annual herb	Apr-Oct	1B.2		
Fritillaria ojaiensis	Ojai fritillary	Liliaceae	perennial bulbiferous herb	Feb-May	1B.2		
Fritillaria viridea	San Benito fritillary	Liliaceae	perennial bulbiferous herb	Mar-May	1B.2		
Horkelia cuneata var. puberula	mesa horkelia	Rosaceae	perennial herb	Feb-Jul(Sep)	1B.1		
Horkelia cuneata var. sericea	Kellogg's horkelia	Rosaceae	perennial herb	Apr-Sep	1B.1		
Lasthenia californica ssp. macrantha	perennial goldfields	Asteraceae	perennial herb	Jan-Nov	1B.2		
Lasthenia glabrata ssp. coulteri	Coulter's goldfields	Asteraceae	annual herb	Feb-Jun	1B.1		
Layia jonesii	Jones' layia	Asteraceae	annual herb	Mar-May	1B.2		
Lupinus ludovicianus	San Luis Obispo County lupine	Fabaceae	perennial herb	Apr-Jul	1B.2		
Malacothamnus gracilis	slender bush-mallow	Malvaceae	perennial deciduous shrub	May-Oct	1B.1		
Malacothamnus palmeri var. involucratus	Carmel Valley bush-mallow	Malvaceae	perennial deciduous shrub	Apr-Oct	1B.2		
Malacothamnus palmeri var. palmeri	Santa Lucia bush-mallow	Malvaceae	perennial deciduous shrub	May-Jul	1B.2		
Monardella palmeri	Palmer's monardella	Lamiaceae	perennial rhizomatous herb	Jun-Aug	1B.2		
Monardella sinuata ssp. sinuata	southern curly-leaved monardella	Lamiaceae	annual herb	Apr-Sep	1B.2		
Monardella undulata ssp. undulata	San Luis Obispo monardella	Lamiaceae	perennial rhizomatous herb	May-Sep	1B.2		
Monolopia gracilens	woodland woollythreads	Asteraceae	annual herb	(Feb)Mar-Jul	1B.2		
Navarretia nigelliformis ssp. radians	shining navarretia	Polemoniaceae	annual herb	(Mar)Apr-Jul	1B.2		
Nemacaulis denudata var. denudata	coast woolly-heads	Polygonaceae	annual herb	Apr-Sep	1B.2		
Plagiobothrys uncinatus	hooked popcornflower	Boraginaceae	annual herb	Apr-May	1B.2		
Poa diabolii	Diablo Canyon blue grass	Poaceae	perennial rhizomatous herb	Mar-Apr	1B.2		
Sanicula maritima	adobe sanicle	Apiaceae	perennial herb	Feb-May	1B.1	CR	
Scrophularia atrata	black-flowered figwort	Scrophulariaceae	perennial herb	Mar-Jul	1B.2		
Senecio aphanactis	chaparral ragwort	Asteraceae	annual herb	Jan-Apr(May)	2B.2		
Sidalcea hickmanii ssp. anomala	Cuesta Pass checkerbloom	Malvaceae	perennial herb	May-Jun	1B.2	CR	
Streptanthus albidus ssp. peramoenus	most beautiful jewelflower	Brassicaceae	annual herb	(Mar)Apr-Sep(Oct)	1B.2		
Suaeda californica	California seablite	Chenopodiaceae	perennial evergreen shrub	Jul-Oct	1B.1		FE

Sulcaria isidiifera	splitting yarn lichen	Alectoriaceae	fruticose lichen (epiphytic)		1B.1
Trifolium hydrophilum	saline clover	Fabaceae	annual herb	Apr-Jun	1B.2
Tropidocarpum capparideum	caper-fruited trepidocarpum	Brassicaceae	annual herb	Mar-Apr	1B.1

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Table 1 Special-Status Plant Species Evaluated for the 2019 Master Plan

Species Name	Habitat and Distribution	Flower Season	Legal Status ¹ Federal/ State/CNPS	Potential for Occurrence within the Analysis Area ²
Hoover's bent grass <i>Agrostis hooveri</i>	Occurs in sandy sites in chaparral, cismontane woodland, valley and foothill grassland. 60–600 meters.	April–July	--/--/1B.2	Not expected to occur: The analysis area does not support sandy soils.
Arroyo de la Cruz manzanita <i>Arctostaphylos cruzensis</i>	Occurs in broadleaf upland forest, coastal scrub, closed cone coniferous forest, chaparral, and grassland. On sandy soils. 60–310 meters	December–March	--/--/1B.2	Not expected to occur: The analysis area does not support sandy soils.
Santa Lucia manzanita <i>Arctostaphylos luciana</i>	Evergreen shrub; occurs on Chaparral with shale outcrops. 350–850 meters.	December–March	--/--/1B.2	Not expected to occur: Elevation of the analysis area is lower than this species' range.
Morro manzanita <i>Arctostaphylos morroensis</i>	Occurs in chaparral, cismontane woodland, and coastal scrub and on stabilized coastal dunes. 5–205 meters.	December–March	FT/--/1B.1	Not expected to occur: The analysis area does not support sandy soils and is located east of this species' range.
Oso manzanita <i>Arctostaphylos osoensis</i>	Evergreen shrub; occurs in chaparral and cismontane woodland associated with dacite porphyry (purple/red igneous volcanic rock) on buttes. 300–500 meters.	February–March	--/--/1B.2	Not expected to occur: The analysis area does not support appropriate soils and are located at lower elevation than this species' range.
Pecho manzanita <i>Arctostaphylos pechoensis</i>	Occurs in closed coniferous forest, chaparral, and coastal scrub on siliceous shale. 125–850 meters.	November to March	--/--/1B.2	Not expected to occur: The analysis area does not support suitable soils for this species.
Santa Margarita manzanita <i>Arctostaphylos pilosula</i>	Evergreen shrub; occurs in closed coniferous forest, chaparral, and cismontane woodland on shale soils. 170–1100 meters.	December–May	--/--/1B.2	Not expected to occur: The analysis area does not support suitable soils.
sand mesa manzanita <i>Arctostaphylos rudis</i>	Evergreen shrub; occurs in maritime chaparral and coastal scrub with sandy soils. 25–322 meters.	November–February	--/--/1B.2	Not expected to occur: The analysis area does not support suitable habitats for this species.
dacite manzanita <i>Arctostaphylos tomentosa</i> ssp. <i>daciticola</i>	Evergreen shrub; occurs in chaparral and cismontane woodland associated with dacite porphyry (purple/red igneous volcanic rock) on buttes. 100–300 meters.	March–May	--/--/1B.1	Not expected to occur: The analysis area does not support appropriate soils.
marsh sandwort <i>Arenaria paludicola</i>	Occurs in marshes and swamps; grows through dense mats of <i>Typha</i> , <i>Juncus</i> , <i>Scirpus</i> , etc. in freshwater marsh. 10–170 meters.	May–August	FE/SE/1B.1	May occur: The various reservoirs in the analysis area may provide appropriate habitat.
Mile's milk-vetch <i>Astragalus didymocarpus</i> var. <i>milesianus</i>	Annual herb; Occurs in coastal scrub on clay soils. 20–90 meters.	March–June	--/--/1B.2	May occur: Species not expected to occur in the agricultural and developed areas. The Faculty and Staff Workforce Housing site support suitable habitat. Surveys confirmed the absence of this species in the Faculty and Staff Workforce Housing site support (Terra Verde 2017).
Coulter's saltbush <i>Atriplex coulteri</i>	Occurs in coastal bluff scrub, coastal dunes, coastal scrub, and valley and foothill grassland/alkaline or clay. 3–460 meters.	March–October	--/--/1B.2	May occur: Grassland habitat in the analysis area may provide suitable habitat.
twisted horsehair lichen <i>Bryoria spiralis</i>	Epiphytic lichen; typically associated with conifers. Largest known population is on	NA	--/--/1B.2	Not expected to occur: The planning areas do not support appropriate habitat.

Species Name	Habitat and Distribution	Flower Season	Legal Status ¹ Federal/ State/CNPS	Potential for Occurrence within the Analysis Area ²
	Samoa Peninsula in Humboldt County. 0–30 meters.			
San Luis mariposa lily <i>Calochortus obispoensis</i>	Occurs in chaparral, coastal scrub, and valley and foothill grassland. Often in serpentine grassland. 75–665 meters.	May–July	--/--/1B.2	Not expected to occur: CNDDDB documents occurrences in Poly Canyon, near the Poly “P,” and Pennington Creek preserve. Species not expected to occur in the analysis area.
La Panza mariposa lily <i>Calochortus simulans</i>	Occurs in chaparral, cismontane woodlands, lower montane coniferous forest, and valley and foothill grassland; often in sandy, granitic, or serpentine soils. 395–1100 meters.	April–June	--/--/1B.3	Not expected to occur: The planning areas do not support suitable soils and are located at a lower elevation than this species’ range.
dwarf calycadenia <i>Calycadenia villosa</i>	Annual herb typically found in rocky, fine soils within chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland. 240-1350 meters	May - October	--/--/1B.1	May occur: The grasslands in the analysis area provide suitable habitat for this species.
Hardham’s evening- primrose <i>Camissoniopsis hardhamiae</i>	Annual herb; typically found in sandy, decomposed carbonate soils, especially in disturbed or burned areas among chaparral and cismontane woodland. 140–945 meters.	March–May	-- / -- /1B.2	Not expected to occur: The analysis area does not support suitable soils or habitats.
San Luis Obispo sedge <i>Carex obispoensis</i>	Occurs in closed cone coniferous forests, chaparral, coastal prairie, coastal scrub, and valley and foothill grassland. Usually adjacent to seeps, springs, stream sides or other water source with sand, clay, or serpentine. 5–790 meters.	April–June	--/--/1B.2	Likely to occur: CNDDDB documents occurrences in upper reaches of Stenner Creek. Grassland habitat adjacent to waterways in the analysis area may provide suitable habitat.
San Luis Obispo owl’s clover <i>Castilleja densiflora</i> ssp. <i>obispoensis</i>	Occurs in valley and foothill grassland. 10–215 meters.	March-May	--/--/1B.2	Likely to occur: CNDDDB documents occurrences in Poly Canyon and Chorro Creek Ranch. Surveys confirmed the absence of this species in the Faculty and Staff Workforce Housing site (Terra Verde 2017). The grassland habitat within the analysis area may provide suitable habitat.
California jewelflower <i>Caulanthus californicus</i>	Annual herb; occurs in non-native grassland, upper Sonoran subshrub scrub, and cismontane juniper woodland and scrub communities in subalkaline and sandy loam soils. Current known naturally occurring populations are in Santa Barbara Canyon, Carrizo Plain, and the Kreyenhagen Hills in Fresno County. 61–1,000 meters.	February– May	FE/SE/1B.1	Not expected to occur: The plan area does not support suitable soils or habitats. The campus is outside this species’ current known range.
Nipomo Mesa ceanothus <i>Ceanothus impressus</i> var. <i>nipomensis</i>	Perennial shrub typically found in sandy soils within chaparral habitat. 30-245 meters.	February- April	--/--/1B.2	Not expected to occur: The analysis area does not support suitable soil or habitat for this species and its outside of the current known range for this species.
San Luis Obispo ceanothus	Perennial shrub typically found in dacite in chaparral and cismontane woodland. 140-225 meters.	June	--/--/1B.1	Not expected to occur: The plan area does not support suitable soils or habitats.

Species Name	Habitat and Distribution	Flower Season	Legal Status ¹ Federal/ State/CNPS	Potential for Occurrence within the Analysis Area ²
<i>Ceanothus thyrsiflorus</i> var. <i>obispoensis</i>				
Congdon's tarplant <i>Centromadia parryi</i> ssp. <i>congdonii</i>	Occurs in alkaline soils within valley and foothill grassland. 0–230 meters.	June–October (sometimes blooms till November)	--/--/1B.1	May occur: Grassland habitat may provide suitable habitat for this species. Surveys confirmed the absence of this species in the Faculty and Staff Workforce Housing site (Terra Verde 2017).
Coastal goosefoot <i>Chenopodium littoreum</i>	Annual herb; occurs on coastal dunes. 10–30 meters.	April–August	--/--/1B.2	Not expected to occur: The analysis area does not support coastal dunes.
dwarf soaproot <i>Chlorogalum</i> <i>pomeridianum</i> var. <i>minus</i>	Occurs in chaparral habitats with serpentine soils. 305–1,000 meters.	May–August	--/--/1B.2	Not expected to occur: CNDDDB reports occurrences within Poly Canyon within serpentine soils. However, not expected to occur within the analysis area due to lack of serpentine soils.
salt marsh bird's-beak <i>Chloropyron maritimum</i> ssp. <i>maritimum</i>	Annual herb; occurs in coastal dunes and coastal salt marshes and swamps. 0–30 meters.	May–October (sometimes blooms till November)	FE/SE/1B.2	Not expected to occur: The analysis area does not support coastal salt marsh habitat.
Brewer's spineflower <i>Chorizanthe breweri</i>	Occurs in chaparral, cismontane woodland, coastal scrub, closed-cone coniferous forest; rocky or gravelly serpentine sites; usually in barren areas. 45–800 meters.	April–August	--/--/1B.3	Not expected to occur: CNDDDB documents occurrences in Poly Canyon, Chorro Creek Ranch, and Pennington Creek Biological Preserve. Although the Faculty and Staff Workforce Housing site supports marginal habitat for this species. Surveys confirmed the absence of this species in the Faculty and Staff Workforce Housing site (Terra Verde 2017). Not expected to occur within the analysis area due to lack of serpentine soils.
straight-awned spineflower <i>Chorizanthe rectispina</i>	Occurs in chaparral, cismontane woodland, and coastal scrub; often on granite in chaparral. 355–1035 meters.	April–July	--/--/1B.3	Not expected to occur: The analysis area does not support suitable soils and are located at a lower elevation than this species' range.
San Luis Obispo fountain thistle [=Chorro Creek Bog Thistle] <i>Cirsium fontinale</i> var. <i>obispoense</i>	Occurs in chaparral, cismontane woodlands; serpentine seeps or bogs. 35–380 meters.	February–July (sometimes as late as August–September)	FE/SE/1B.2	May occur: Species may occur in serpentine seeps along Poly Canyon and Stenner Creek. Surveys confirmed the absence of this species in the Faculty and Staff Workforce Housing site (Terra Verde 2017). CNDDDB documents occurrences in the Cal Poly bioreserve areas.
Cuesta Ridge thistle <i>Cirsium occidentale</i> var. <i>lucianum</i>	Perennial herb; occurs in openings among chaparral with rocky substrates and serpentine; often found on steep rocky slopes and road cuts. 500–750 meters.	April–June	-- / -- /1B.2	Not expected to occur: The analysis area does not support suitable soils and is located at a lower elevation than this species' range. Nearest CNDDDB occurrence is within

Species Name	Habitat and Distribution	Flower Season	Legal Status ¹ Federal/ State/CNPS	Potential for Occurrence within the Analysis Area ²
				serpentine soils along Stenner Creek outside of the analysis area.
Surf thistle <i>Cirsium rhotophilum</i>	Occurs in coastal dunes, coastal bluff scrub, and open areas in central dune scrub; usually in coastal dunes. 3–60 meters	April–June	--/ST/1B.2	Not expected to occur: The analysis area does not support coastal dunes and are located at a higher elevation than this species' range.
La Graciosa thistle <i>Cirsium scariosum</i> var. <i>loncholepis</i>	Perennial herb typically found in mesic, sandy soils within cismontane woodland, coastal dunes, coastal scrub, marshes and swamps (brackish), and valley and foothill grassland. 4–220 meters.	May–August	FE/ST/1B.1	May occur: Species may occur in mesic areas within grassland habitat.
popcorn lichen <i>Cladonia firma</i>	Squamulose lichen; occurs on soil, detritus, or moss on stabilized coastal dunes among coastal scrub. Known in California only from Morro Bay and Baywood-Los Osos areas. 30–75 meters.	NA	--/--/2B.1	Not expected to occur: The analysis area does not support coastal dunes.
Pismo clarkia <i>Clarkia speciosa</i> ssp. <i>immaculata</i>	Occurs in sandy soils, openings in chaparral, cismontane woodland, valley and foothill grassland. On ancient sand dunes not far from the coast. 25–185 meters.	May–July	FE/SR/1B.1	Not expected to occur: The analysis area does not support suitable habitat for this species.
dune larkspur <i>Delphinium parryi</i> ssp. <i>blochmaniae</i>	Perennial herb; occurs in maritime chaparral and coastal dunes with sandy or rocky soils. 0–200 meters.	April–June	--/--/1B.2	Not expected to occur: The analysis area does not support coastal dunes or maritime chaparral.
Eastwood's larkspur <i>Delphinium parryi</i> ssp. <i>eastwoodiae</i>	Perennial herb; occurs in chaparral and valley and foothill grassland among serpentine soils. 60–640 meters.	March–May (sometimes may start blooming in February)	--/--/1B.2	Not expected to occur: CNDDDB documents occurrences in Poly Canyon within the plan area. However, not expected to occur within the analysis area due to lack of serpentine soils.
umbrella larkspur <i>Delphinium umbracolorum</i>	Perennial herb; occurs in cismontane woodland. 400–1600 meters.	April–June	--/--/1B.3	Not expected to occur: The analysis area does not support cismontane woodland.
beach spectaclepod <i>Dithyrea maritima</i>	Occurs in coastal dunes, coastal scrub, sea shores, on sand dunes, and sandy places near the shore. 3–50 meters.	March–May	--/ST/1B.1	Not expected to occur: The analysis area does not support suitable habitat for this species.
Betty's dudleya <i>Dudleya abramsii</i> ssp. <i>bettinae</i>	Occurs in coastal scrub, valley and foothill grassland, chaparral, and rocky barren serpentine exposures. 20–180 meters.	May–July	--/--/1B.2	Not expected to occur: Surveys confirmed the absence of this species in the Faculty and Staff Workforce Housing site (Terra Verde 2017). This species is not expected to occur within the analysis area due to lack to serpentine soils.
mouse-gray dudleya <i>Dudleya abramsii</i> ssp. <i>murina</i>	Occurs in serpentine outcrops in chaparral and cismontane woodland. 90–300 meters.	May–June	--/--/1B.3	Not expected to occur: Cal Poly reports occurrences in Poly Canyon (Cal Poly 2019) and CNDDDB documents occurrences in the Chorro Creek Ranch and Poly Canyon but outside of the analysis area. Species

Species Name	Habitat and Distribution	Flower Season	Legal Status ¹ Federal/ State/CNPS	Potential for Occurrence within the Analysis Area ²
				not expected to occur in the analysis area due to lack of serpentine soils.
Blochman's dudleya <i>Dudleya blochmaniae</i> ssp. <i>blochmaniae</i>	Occurs in coastal scrub, chaparral, and valley and foothill grassland habitats on rocky outcrops in clay or serpentine soils. 5–450 meters.	April–June	--/--/1B.1	May occur: CNDDDB documents occurrences in Poly Canyon and Pennington Creek vicinity. The University-Based Retirement Community site supports suitable habitat.
Yellow-flowered eriastrum <i>Eriastrum luteum</i>	Annual herb; occurs in broadleaf upland forest, chaparral, and cismontane woodland on sandy or gravelly soils. 290–1,000 meters.	May–June	--/--/1B.2	Not expected to occur: The analysis area does not support suitable habitat and are located at a lower elevation than this species' range.
Blochman's leafy daisy <i>Erigeron blochmaniae</i>	Perennial rhizomatous herb; occurs in coastal dunes and coastal scrub on sandy soils. 3–45 meters.	July–August	--/--/1B.2	Not expected to occur: The analysis area does not provide suitable habitat.
Indian knob mountainbalm <i>Eriodictyon altissimum</i>	Evergreen shrub; occurs in maritime chaparral, cismontane woodland, and coastal scrub with sandstone substrates. 80–270 meters.	March–June	FE/SE/1B.1	Not expected to occur: The analysis area does not support sandstone soils.
Hoover's button-celery <i>Eryngium aristulatum</i> var. <i>hooveri</i>	Occurs in vernal pools and seasonal wetlands (occasionally alkaline). 5–45 meters.	July (may bloom as early as June or as late as August)	--/--/1B.1	Not expected to occur: The analysis area is located at a higher elevation than this species' elevational range.
San Joaquin spearscale <i>Extriplex joaquiniana</i>	Shrub; occurs in chenopod scrub, meadows, seeps, playas, and valley and foothill grassland, often in alkaline soils. 1–835 meters.	April–October	--/--/1B.2	May occur: The University-Based Retirement Community site supports marginal habitat.
Ojai fritillary <i>Fritillaria ojaiensis</i>	Bulbiferous herb; occurs in broadleaf upland forest, chaparral, and lower montane coniferous forest on rocky soils. 300–998 meters.	February–May	--/--/1B.2	Not expected to occur: The study area does not support suitable habitat.
San Benito fritillary <i>Fritillaria viridea</i>	Occurs in chaparral on serpentine slopes; elev. 300–1,525 meters.	March–May	--/--/1B.2	Not expected to occur: The analysis area does not support suitable habitat.
mesa horkelia <i>Horkelia cuneata</i> ssp. <i>puberula</i>	Perennial herb; occurs in chaparral, cismontane woodlands, and coastal scrub in sandy or gravelly sites. 70–810 meters	February–July (may sometimes bloom in September)	--/--/1B.1	Not expected to occur: The analysis area does not support suitable habitat.
Kellogg's horkelia <i>Horkelia cuneata</i> ssp. <i>sericea</i>	Perennial herb; occurs in closed-cone coniferous forest, maritime chaparral, and coastal scrub with sandy or gravelly openings. 10–200 meters.	April–September	--/--/1B.1	Not expected to occur: The analysis area does not support suitable habitat.
Perennial goldfields <i>Lasthenia californica</i> ssp. <i>macrantha</i>	Perennial herb from the Asteraceae family; occurs in coastal bluff scrub, coastal dunes, and coastal scrub. 5–520 meters.	January–November	--/--/1B.2	Not expected to occur: The analysis area does not support suitable habitat.

Species Name	Habitat and Distribution	Flower Season	Legal Status ¹ Federal/ State/CNPS	Potential for Occurrence within the Analysis Area ²
Coulter's goldfields <i>Lasthenia glabrata</i> ssp. <i>coulteri</i>	Annual herb; occurs in freshwater wetlands coastal salt marshes, wetland/riparian habitat, alkali sink, playas, vernal pools, and swamps. 1–1,220 meters.	February–June	--/--/1B.1	May occur: Waterways and wetlands within the analysis are may provide suitable habitat.
Jones's layia <i>Layia jonesii</i>	Occurs in chaparral and valley and foothill grassland on clay or serpentine outcrops. 5–400 meters.	March–May	--/--/1B.2	May occur: CNDDDB documents occurrences of Jones's layia near the summit of Poly Canyon and on Chorro Creek Ranch property (CNDDDB 2019). Surveys confirmed the absence of this species in the Faculty and Staff Workforce Housing site (Terra Verde 2017). The grassland areas in the analysis area may provide suitable habitat.
San Luis Obispo County lupine <i>Lupinus ludovicianus</i>	Occurs in chaparral, cismontane woodland, and in open areas in sandy soils or sandstone soils. 50–525 meters.	April–July	--/--/1B.2	Not expected to occur: The analysis area does not support suitable soils for this species.
Slender bush-mallow <i>Malacothamnus gracilis</i>	Perennial deciduous shrub usually found in rocky soils within chaparral habitat at elevations ranging from 190–575 meters.	May–October	--/--/1B.1	Not expected to occur: The analysis area does not support habitat suitable for this species.
Carmel Valley bush-mallow <i>Malacothamnus palmeri</i> var. <i>involucratus</i>	Perennial deciduous shrub typically found in chaparral, cismontane woodland, and coastal scrub at elevations ranging from 30–1100 meters.	April–October	--/--/1B.2	Not expected to occur: The analysis area does not support habitats suitable for this species.
Santa Lucia bush-mallow <i>Malacothamnus palmeri</i> var. <i>palmeri</i>	Deciduous shrub; occurs in chaparral with rocky substrates. 60–360 meters.	May–July	--/--/1B.2	Not expected to occur: The analysis area does not support suitable habitat for this species.
Palmer's monardella <i>Monardella palmeri</i>	Occurs in chaparral and cismontane woodland on serpentine slopes. 200–800 meters.	June–August	--/--/1B.2	Not expected to occur: The analysis area does not support suitable habitat for this species. Surveys confirmed the absence of this species in the Faculty and Staff Workforce Housing site (Terra Verde 2017).
southern curly-leaved monardella <i>Monardella sinuata</i> ssp. <i>sinuata</i>	Annual herb; occurs in sandy soil among chaparral, cismontane woodland, coastal dunes, and coastal scrub with openings. 0–300 meters.	April–September	--/--/1B.2	Not expected to occur: The analysis area does not support suitable habitat for this species.
San Luis Obispo monardella <i>Monardella undulata</i> spp. <i>undulata</i>	Perennial rhizomatous herb, typically found in coastal dunes and coastal scrubs with sandy soils. 10–200 meters	May–September	--/--/1B.2	Not expected to occur: The analysis area does not support suitable habitat for this species.
Woodland woollythreads <i>Monolopia gracilens</i>	Annual herb, typically found in serpentine soils within broadleaved upland forest (openings), chaparral (openings), cismontane woodland, North Coast coniferous forest (openings), and valley and foothill grasslands. 100–1200 meters	March–July (occasionally may bloom as early as February)	--/--/1B.2	Not expected to occur: The analysis area does not support suitable habitat for this species.

Species Name	Habitat and Distribution	Flower Season	Legal Status ¹ Federal/ State/CNPS	Potential for Occurrence within the Analysis Area ²
spreading navarretia <i>Navarretia fossalis</i>	Annual herb; occurs in chenopod scrub, marshes and swamps (assorted shallow freshwater), playas, and vernal pools. 30–655 meters.	April–June	FT/--/1B.1	May occur: The edges of the reservoirs and ponds may provide suitable habitat.
shinning navarretia <i>Navarretia nigelliformis</i> ssp. <i>radians</i>	Annual herb; sometimes occurs in clay soils within cismontane woodland, valley and foothill grassland, and vernal pools. 76–1,000 meters.	April–July (occasionally may bloom as early as March)	--/--/1B.2	May occur: Grassland habitat may provide suitable habitat.
coast woolly-heads <i>Nemacaulis denudate</i> var. <i>denudata</i>	Annual herb; occurs on coastal dunes. 0–100 meters.	April–September	--/--/1B.2	Not expected to occur: The analysis area does not support suitable soils or habitat.
hooked popcornflower <i>Plagiobothrys uncinatus</i>	Annual herb; occurs in chaparral, cismontane woodland, and valley and foothill grassland with sandy soils. 300–760 meters.	April–May	--/--/1B.2	Not expected to occur: The analysis area does not support suitable soils and are located at a lower elevation than this species' range.
Diablo Canyon blue grass <i>Poa diaboli</i>	Rhizomatous herb; occurs in closed-cone coniferous forest, chaparral, cismontane woodland, and coastal scrub with shale substrates. 120–400 meters.	March–April	--/--/1B.2	Not expected to occur: The analysis area does not support suitable habitat for this species.
adobe sanicle <i>Sanicula maritima</i>	Occurs in moist seeps within coastal prairie, chaparral, meadows, and valley and foothill grassland habitats in clay or serpentine soils. 30–240 meters.	February–May	--/SR/1B.1	May occur: Grassland habitat within the analysis area may provide suitable habitat, as well as the serpentinite soils in Poly Canyon.
black-flowered figwort <i>Scrophularia atrata</i>	Occurs in closed-cone coniferous forest, chaparral, coastal dunes, coastal scrub, and riparian scrub; around swales and in sand dunes; and in sand, diatomaceous shale, and soils derived from other parent material. 10–250 meters.	March–July	--/--/1B.2	Not expected to occur: The planning areas do not support suitable soils.
rayless (chaparral) ragwort <i>Senecio aphanactis</i>	Sometimes occurs in alkaline soils within chaparral, cismontane woodlands, and coastal scrub. 15–800 meters.	January–April (may sometimes bloom till May)	--/--/2B.2	Not expected to occur: CNDDDB reports an occurrence within Rockslide Ridge within the plan area. Surveys confirmed the absence of this species in the Faculty and Staff Workforce Housing site (Terra Verde 2017).
Cuesta pass checkerbloom <i>Sidalcea hickmanii</i> ssp. <i>anomala</i>	Occurs in closed-cone coniferous forest with rocky serpentine slopes. 600–800 meters.	May–June	--/SR/1B.2	Not expected to occur: The analysis area is outside of the elevational range of this species.
most beautiful jewelflower <i>Streptanthus albidus</i> ssp. <i>peramoenus</i>	Occurs in chaparral, cismontane woodlands, valley and foothill grasslands on serpentine soil. 110–1,000 meters.	April–September (may bloom as early as March or as late as October)	--/--/1B.2	Not expected to occur: CNDDDB documents occurrences in the Poly Canyon area. Species not expected to occur within the analysis area due to lack of serpentine soils.

Species Name	Habitat and Distribution	Flower Season	Legal Status ¹ Federal/ State/CNPS	Potential for Occurrence within the Analysis Area ²
California seablite <i>Suaeda californica</i>	Low-growing evergreen shrub; occurs in coastal salt marshes and swamps. 0–15 meters.	July–October	FE/--/1B.1	Not expected to occur: The analysis area does not provide suitable habitats.
Splitting yarn lichen <i>Sulcaria isidiifera</i>	Epiphytic lichen; occurs on branches of old growth oaks and shrubs in coastal scrub habitat.	NA	--/--/1B.1	Not expected to occur: Species not expected to occur in the analysis area.
saline clover <i>Trifolium hydrophilum</i>	Annual herb; occurs in marshes and swamps, valley and foothill grassland (mesic, alkaline), and vernal pools. 0–300 meters.	April–June	--/--/1B.2	May occur: Mesic areas within grassland habitat may provide suitable habitat for this species.
caper fruited tropicodarpum <i>Tropidocarpum capparideum</i>	Occurs in valley and foothill grassland habitats on alkaline hills 1–455 meters.	March–April	--/--/1B.1	Not expected to occur: The analysis area does not support alkaline hills.

Notes: CRPR = California Rare Plant Rank; CNDDDB = California Natural Diversity Database

¹ Legal Status Definitions

Federal:

- E Endangered (legally protected by ESA)
- T Threatened (legally protected by ESA)

State:

- E Endangered (legally protected by CESA)
- T Threatened (legally protected by CESA)
- R Rare (legally protected by CNPPA)

California Rare Plant Ranks:

- 1B Plant species considered rare or endangered in California and elsewhere (protected under CEQA, but not legally protected under ESA or CESA)
- 2B Plant species considered rare or endangered in California but more common elsewhere (protected under CEQA, but not legally protected under ESA or CESA)

Threat Ranks:

- 0.1 Seriously threatened in California (over 80% of occurrences threatened; high degree and immediacy of threat)
- 0.2 Moderately threatened in California (20-80% occurrences threatened; moderate degree and immediacy of threat)
- 0.3 Not very threatened in California (less than 20% of occurrences threatened; low degree and immediacy of threat or not current threats known)

² Potential for Occurrence Definitions

Not expected to occur: Species is unlikely to be present within the plan area due to poor habitat quality, lack of suitable habitat features, or restricted current distribution of the species.

May occur: Suitable habitat is available within the plan area; however, there are little to no other indicators that the species might be present.

Likely to occur: All of the species life history requirements can be met by habitat present on the site, and populations/occurrences are known to occur in the immediate vicinity.

Sources: CNDDDB 2019; CNPS 2019; USFWS 2019a, Baldwin et al. 2012.

Baldwin, B., D. Goldman, D. Keil, R. Patterson, and T. Rosatti (editors). 2012. The Jepson Manual: Vascular Plants of California. Second Edition. Berkeley, California: University of California Press.

Table 2 Special-Status Wildlife Species Evaluated for the 2019 Master Plan

Species Name	Habitat and Distribution	Legal Status ¹ Federal/State /Other	Potential for Occurrence within the Analysis Area ²
Gastropods			
Morro shoulderband snail <i>Helminthoglypta walkeriana</i>	Restricted to Baywood fine sand in coastal dune and coastal sage scrub communities near Morro Bay; often occurs under shrubs that exhibit dense, low growth and have ample contact with the ground. Utilize mock heather, seaside golden yarrow, deerweed, sand almond, and ice plant, among others.	FE/--/--	Not expected to occur: The analysis area is outside of the current known range of this species.
Insects			
monarch butterfly <i>Danaus plexippus</i>	Occurs along the coast from northern Mendocino to Baja California, Mexico. Winter roosts in wind-protected tree groves (eucalyptus, Monterey pine, and cypress), with nectar and water sources nearby.	--/SA/--	Present The riparian corridors of Smith Reservoir, Brizzolara Creek, and Stenner Creek support marginal conditions for this species. Species was observed in the Farm Shop and Faculty and Staff Workforce Housing sites. CNDDDB reports a winter roost in the southwest portion of the Master Plan Area.
Kern primrose sphinx moth <i>Euproserpinus euterpe</i>	Typically found in valley and foothill grassland within the Walker Basin, Kern County, and several other scattered locations (Carrizo Plain, Pinnacles National Monument). Host plant is evening primrose (<i>Camissonia contorta epilobioides</i>).	FT/--/--	Not expected to occur: The analysis area is located east of this species' range and does not support the necessary host plant.
Morro Bay blue butterfly <i>Plebejus icarioides moroensis</i>	Restricted to the dunes at Vandenberg Air Force Base, Pismo/Guadalupe dune system and the dunes of Morro Bay; locally common from March to July; flies only along the immediate coast of San Luis Obispo and western Santa Barbara counties; feeds on <i>Lupinus chamissonis</i> .	--/SA/--	Not expected to occur: The analysis area is located east of this species' range and do not support the necessary host plant.
Branchiopods			
vernal pool fairy shrimp <i>Branchinecta lynchi</i>	Occurs in vernal pool habitats including depressions in sandstone, to small swale, earth slump, or basalt-flow depressions with a grassy or, occasionally, muddy bottom in grassland.	FT/--/--	Not expected to occur: The analysis area does not support suitable soils.
California linderiella <i>Linderiella occidentalis</i>	Occurs in seasonal ponds in grasslands, sandstone depressions, and alluvial flats with hardpan beneath.	--/--/--	Not expected to occur: The analysis area does not support suitable habitat for this species.
Fish			
tidewater goby <i>Eucyclogobius newberryi</i>	Occurs in brackish shallow lagoons and lower stream reaches where water is fairly still, but not stagnant.	FE/SSC/--	Not expected to occur: The analysis area does not support brackish water aquatic sites.
South-Central California Coast steelhead DPS <i>Oncorhynchus mykiss</i>	Occurs in clear, cool water with abundant in-stream cover, well-vegetated stream margins, relatively stable water flow, and a 1:1 pool-to-riffle ratio.	FT, PCH/SSC/--	Present Known to occur in Stenner Creek and Brizzolara Creek. Both these creeks are designated critical habitat for steelhead.

Species Name	Habitat and Distribution	Legal Status ¹ Federal/State /Other	Potential for Occurrence within the Analysis Area ²
Amphibians			
California tiger salamander <i>Ambystoma californiense</i>	Cismontane woodland, meadow and seep, riparian woodland, valley and foothill grassland, vernal pool, and wetlands. Central Valley DPS federally listed as threatened. Santa Barbara and Sonoma counties DPS federally listed as endangered. Need underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding.	FT/ST, WL/--	Not expected to occur: The analysis area is outside of the current known range for this species.
Lesser slender salamander <i>Batrachoseps minor</i>	Occurs in the South Santa Lucia Mountains in tankbark oak, coast live oak, blue oak, sycamore and laurel that support shaded slopes with abundant leaf litter.	--/ SSC/--	Not expected to occur: The analysis area does not provide suitable habitat for this species.
foothill yellow-legged frog <i>Rana boylei</i>	Frequents rocky streams and rivers with rocky substrate and open, sunny banks, in forests, chaparral, and woodlands. Range in California includes the north and central coasts and the western Sierras.	--/ SSC/--	Not expected to occur: The analysis area does not provide suitable habitat for this species
California red-legged frog <i>Rana draytonii</i>	Occurs in aquatic habitats with little or no flow and surface water depths to at least 2.3 feet. Presence of fairly sturdy underwater supports such as cattails.	FT / SSC/--	Present: Shepard, Smith, and Drumm Reservoirs; the Swine unit detention basins; and Brizzolara and Stenner Creeks support suitable aquatic habitat. Cal Poly staff observed species in the Swine Unit detention basin in 2011. CNDDDB documents an occurrence in Brizzolara Creek.
western spadefoot <i>Spea hammondi</i>	Inhabits vernal pools in primarily grassland, but also in valley and foothill hardwood woodlands with sandy or gravelly soils.	--/ SSC/--	Not expected to occur: The clay and clay loam soils found in the undeveloped parts of the analysis area not suitable for this burrowing species.
Coast Range newt <i>Taricha torosa torosa</i>	Breed in ponds, reservoirs, and slow-moving streams. Frequents terrestrial habitats such as oak woodlands.	--/ SSC/--	Present The perennial reservoirs and stream reaches on the campus lands support appropriate aquatic habitat. CNDDDB documents an occurrence in Poly Canyon at Brizzolara Creek.
Reptiles			
California legless lizard <i>Anniella pulchra</i> (inclusive of <i>A. p. nigra</i>)	Occurs in sandy or loose loamy soils with high moisture content under sparse vegetation.	--/ SSC/--	Not expected to occur: Clay and clay loam soils in the analysis area are not suitable for this species.
western pond turtle <i>Actinemys marmorata</i>	Quiet waters of ponds, lakes, streams, and marshes. Typically in the deepest parts with an abundance of basking sites.	--/ SSC/--	Likely to occur: Some of the reservoirs in the analysis area support suitable aquatic habitat. CNDDDB documents an occurrence in Stenner Creek on Cal Poly land.
Blunt-nosed leopard lizard <i>Gambelia silus</i>	Resident of sparsely vegetated alkali and desert scrub habitats, in areas of low topographic relief. Seeks cover in mammal burrows, under shrubs or structures such as fence posts; they do not excavate their own burrows.	FE/CE, FP/ -	Not expected to occur: The analysis area does not provide suitable habitat for this species

Species Name	Habitat and Distribution	Legal Status ¹ Federal/State /Other	Potential for Occurrence within the Analysis Area ²
Coast horned lizard <i>Phrynosoma coronatum</i> (<i>blainvillii</i> population)	Frequents a wide variety of habitats, commonly occurring in lowlands along sandy washes, coastal sage scrub, and chaparral in arid and semi-arid climate conditions. Species prefers friable, rocky, or shallow sandy soils.	--/ SSC/--	Not expected to occur: The analysis area does not provide suitable habitat for this species.
Birds			
tricolored blackbird <i>Agelaius tricolor</i>	(Nesting colony) requires open water, protected nesting substrate such as cattails or tall rushes, and foraging area with insect prey.	--/SE, SSC/--	Present: Some of the reservoirs in the planning areas support suitable habitat. A small flock <25 individuals was observed foraging in the fields where two of the proposed Water Recycling Facility water storage pond locations would be located.
grasshopper sparrow <i>Ammodramus</i> <i>savannarum</i>	Dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes. Favors native grasslands with a mix of grasses, forbs and scattered shrubs. Loosely colonial when nesting.	--/ SSC/--	Likely to occur: The non-native annual grasslands associated with grazing areas could support this species.
golden eagle <i>Aquila chrysaetos</i>	Usually occurs in mountainous areas with varying vegetative cover; removed from people; may forage in grasslands and other open habitats; nests on cliff edges and rarely in tall trees.	BEGEPAFP, Sec.3503.5/--	Not expected to occur: The planning areas do not support cliffs for nesting habitat.
burrowing owl <i>Athene cunicularia</i>	Occurs in open, dry grasslands, deserts, and scrublands; subterranean nester, dependent upon burrowing mammals.	--/ SSC/--	May occur: The campus is outside the breeding range for burrowing owl. However, burrowing owls could occupy the campus grass lands during the winter months.
western yellow-billed cuckoo <i>Coccyzus americanus</i> <i>occidentalis</i>	Occurs in forests to open riparian woodlands with thick under story.	FT /SE/--	May occur: Brizzolara Creek and Stenner Creek riparian areas support marginal conditions for this species
white-tailed kite <i>Elanus leucurus</i>	Occurs in open grasslands, meadows, or marshlands for foraging close to isolated trees for nesting and perching.	--/FP/--	Likely to occur: Brizzolara Creek and Stenner Creek riparian areas support suitable conditions for this species. Due to the fully protected status of this species and the provisions of CFGC 3503.5, nests must be avoided.
Southwestern willow flycatcher <i>Empidonax trailii extimus</i>	Typically found in areas with willows or other shrubs near standing or running water in southern California. Most nests are in willow, but have been found in box elder, dogwood, hawthorn, bracken fern, and tamarisk.	FE/SE/--	Not expected to occur: Although the plan area is within the historical range of the species, the riparian habitat in the plan area does not provide suitable habitat for this species. Nearest historical observation is within the Santa Ynes River (CNDDB 2019).
California condor <i>Gymnogyps californianus</i>	Requires vast expanses of open savannah, grasslands, and foothill chaparral in mountain ranges of moderate altitude. Forages up to 100 miles from roost/nest.	FE/SE,FP/--	Not expected to occur: The analysis area does not contain suitable roosting or nesting habitat for this species.
California black rail <i>Laterallus jamaicensis</i> <i>coturniculus</i>	Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	--/ST,FP/--	Not expected to occur: The analysis area does not provide suitable habitat.

Species Name	Habitat and Distribution	Legal Status ¹ Federal/State /Other	Potential for Occurrence within the Analysis Area ²
Least Bell's vireo <i>Vireo bellii pusillus</i>	Riparian forest, riparian scrub, riparian woodland. Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2,000 feet. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.	FE/SE/--	May occur: The analysis area is within the historic range of least Bell's vireo. While the species was extirpated throughout much of its historic range, subsequent to listing under the ESA, the least Bell's vireo population is expanding (Kus 2002). Though very uncommon, a few individuals have been observed along Morro Bay (eBird 2019). While the species is uncommon, it is possible that recolonization of the historic range could continue into the foreseeable future.
loggerhead shrike <i>Lanius ludovicianua</i>	Predatory passerine; frequents open areas with scattered shrubs; commonly observed foraging in grassland, desert scrubs, and waste places; builds nests in isolated trees or shrubs in the vicinity of foraging areas.	--/ SSC/--	May occur: The grasslands associated with grazing areas and pastures could support this species.
purple martin <i>Progne subis</i>	Occupies valley foothill and montane hardwood forests, conifer forests, and riparian habitats; may nest in old woodpecker cavities or in human-made structures such as bridges and culverts; feeds on insects.	--/ SSC/--	May occur: Brizzolara Creek and Stenner Creek riparian areas support marginal conditions for this species.
California Ridway's rail (= California clapper rail) <i>Rallus obsoletus obsoletus</i> (= <i>Rallus longirostris obsoletus</i>)	Occurs within salt and brackish marshes dominated by pickleweed and Pacific cordgrass; currently restricted to marsh areas within the vicinity of San Francisco Bay; last species to be sighted in Morro Bay was documented in 1939.	FE/SE,FP/--	Not expected to occur: The analysis area does not provide suitable habitat for this species
Mammals			
Pallid bat <i>Antrozous pallidus</i>	Prefers rocky outcrops, cliffs, and crevices with access to open habitats for foraging; day roosts in caves, crevices, mines, and occasionally in hollow trees and buildings; night roosts may be in more open sites, such as porches and buildings.	--/ SSC/--	May occur: The existing agricultural structures in the BCEC, the existing rodeo facility, and existing Farm Shop near Stenner Creek in the North Campus could provide roosting habitat.
Ringtail <i>Bassariscus astutus</i>	Riparian habitats, forest habitats, and shrub habitats in lower to middle elevations. Usually found within 0.6 mile of a permanent water source.	--/FP/--	May occur: Brizzolara Creek and Stenner Creek riparian areas support suitable habitat for this species.
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	Occurs in a wide variety of habitats; most common in mesic (wet) sites; may use trees for day and night roosts; however, requires caves, mines, rock faces, bridges, or buildings for maternity roosts. Maternity roosts are in relatively warm sites.	--/ SSC/--	May occur: The existing agricultural structures in the BCEC, the existing rodeo facility, and existing Farm Shop near Stenner Creek in the North Campus could provide roosting habitat. CNDDDB documents an occurrence in Chorro Creek neighboring Cal Poly land.
Morro Bay kangaroo rat <i>Dipodomys heermanni morroensis</i>	Typically occurs in habitats associated with stabilized dunes and coastal dune scrub communities with dominant vegetation including mock heather, buck brush, and deer weed.	FE/SE/--	Not expected to occur: The analysis area does not provide suitable habitat for this species and is outside of the current known range of the species.

Species Name	Habitat and Distribution	Legal Status ¹ Federal/State /Other	Potential for Occurrence within the Analysis Area ²
Giant kangaroo rat <i>Dipodomys ingens</i>	Typically found in annual grasslands on the western side of the San Joaquin Valley, marginal habitat in alkali scrub. Needs level terrain and sandy loam soils for burrowing.	FE/SE/--	Not expected to occur: The analysis area is outside of the current known range of this species and no suitable habitat is present.
Western mastiff bat <i>Eumops perotis</i>	Found in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc.; roosts in crevices in cliff faces, high buildings, trees, and tunnels.	--/ SSC/--	Not expected to occur: The structures in the development areas do not provide the open roosting substrate typically associated with this species.
Monterey dusky-footed woodrat <i>Neotoma fuscipes annectens</i>	Occurs in coastal central California in habitats that exhibit a moderate vegetative canopy, with a brushy understory. Builds nests of sticks and leaves at the base of, or within, a tree or shrub, or at the base of a hill. Primarily feeds on woody plants, but also eats fungi, flowers, grasses, and acorns.	--/ SSC/--	Likely to occur: The riparian and woodland communities provide suitable habitat for this species.
big free-tailed bat <i>Nyctinomops macrotis</i>	Rare vagrant in California, probable resident in Texas, New Mexico, and southern Arizona; probably does not breed in California; prefers rugged, rocky canyons but will roost on buildings or in caves and trees.	--/ SSC/--	Not expected to occur: This species is rarely observed in California and the analysis area does not support suitable habitat.
American badger <i>Taxidea taxus</i>	Occurs in open stages of shrub, forest, and herbaceous habitats; needs uncultivated ground with friable soils.	--/ SSC/--	May occur: Grassland habitat in the University-Based Retirement Community site may support badgers.
San Joaquin kit fox <i>Vulpes macrotis mutica</i>	Typically found in annual grasslands or grassy open stages with scattered shrubby vegetation in chenopod scrub and valley and foothill grasslands. Needs loose-textured sandy soils for burrowing, and suitable prey base.	FE/ST/--	Not expected to occur: The analysis area is outside of the current known range of the species.

General references: Unless otherwise noted all habitat and distribution data provided by CNDDB.

Note: CNDDB = California Natural Diversity Database

¹ Legal Status Definitions

Federal:

- E Endangered (legally protected)
- T Threatened (legally protected)
- D Delisted
- PT Proposed Threatened
- BCC Bird of Conservation Concern

State:

- D Delisted
- FP Fully protected (legally protected)
- SA Special Animal List (no formal protection other than CEQA consideration).
- SSC Species of special concern (no formal protection other than CEQA consideration)
- E Endangered (legally protected)
- T Threatened (legally protected)
- CT Candidate Threatened

² Potential for Occurrence Definitions

Not expected to occur: Species is unlikely to be present in the plan area due to poor habitat quality, lack of suitable habitat features, or restricted current distribution of the species.

May occur: Suitable habitat is available in the plan area; however, there are little to no other indicators that the species might be present.

Likely to occur: All of the species life history requirements can be met by habitat present on the site, and populations/occurrences are known to occur in the immediate vicinity.

Source: CNDDDB 2019; eBird 2019; USFWS 2019