

4.4 BIOLOGICAL RESOURCES

This section of the EIR identifies and evaluates potential impacts to biological resources resulting from implementation of the project. All information in this section, including biological survey results, habitat mapping, impact calculations, and citations, were provided in the *Biological Report for Dana Reserve* (Althouse and Meade 2022a) and the *N. Frontage Road Extension Addendum to Biological Report for Dana Reserve Specific Plan* (Althouse and Meade 2022b) (EIR Appendix E).

4.4.1 Existing Conditions

4.4.1.1 Specific Plan Area

4.4.1.1.1 SITE HISTORY

The project area and adjacent landscapes are comprised of gently rolling hills that generally slope from the southwestern side near Hetrick Avenue towards the northeastern side near US 101. Elevations in the project area range from 355 to 430 feet. No watercourses are located on the property. Nipomo Creek (off-site) occurs east of US 101, conveying water southeast toward the Santa Maria River. Between US 101 and Pomeroy Road, the project area is bordered by dense oak woodland on the southern end and patches of landscape trees, oaks, and a line of eucalyptus trees (*Eucalyptus globulus*) closer to US 101. The main Dana Reserve parcel is undeveloped and has been used as farm and livestock rangeland for more than a century.

Evidence of episodic disturbance from farming was observed in the field and from aerial imagery dating back to 1939. Field evidence of very old woodland clearcutting suggests a link to a historic drought between 1862 and 1864 when ranchers were compelled to fell trees for livestock consumption (Guinn 1890; and personal communications between Althouse and Meade with Jim Sinton, family rancher familiar with the Nipomo Mesa). Google Earth imagery indicates that the grassland west of US 101 was last farmed in about 2002, or possibly 2006 (Althouse and Meade 2022a).

Farming, mowing, and chaparral (brush) removal appears to have been conducted for decades. Imagery from 1939 shows evidence of brush clearing on rolling topography and farmed fields on flatter terrain, and imagery from 1949 indicates some of the brush cover and associated coast live oaks (*Quercus agrifolia*) were starting to grow back. Some brush clearing is evidenced in 1957. The 1969 to 1994 aerials show chaparral cover generally increasing in areas not actively farmed. Between 1994 and 2002, shrub reduction appears to have reduced brush cover while retaining young trees barely visible in the 1994 imagery. Aerial images from 2002 and years thereafter show reduced brush cover. Livestock pens are visible in 2011 to 2013 aerial imagery.

Two additional parcels provide a connection from Cherokee Place on the north side of the ranch to Willow Road. The western 7-acre parcel is undeveloped and shows evidence of significant site disturbance from past dry farming. There are no trees, weedy species dominate, and a few bushes have become reestablished and/or have regenerated since 2010 when the last mowing appears to have occurred. The eastern 7-acre parcel is densely wooded with a residence and numerous animal pens for horses, chickens, and other animals.

4.4.1.1.2 SOILS

The Soil Survey of San Luis Obispo County, California, Coastal Part (USDA 1984) identifies Oceano sand as two soil map units, depending on slope. Figure 4.4-1 includes digitized spatial data from the USDA soil survey overlaid on an aerial photo. The soil survey map may not indicate small inclusions or other soil types within the project area, such as sandy loam and fine sand soils.

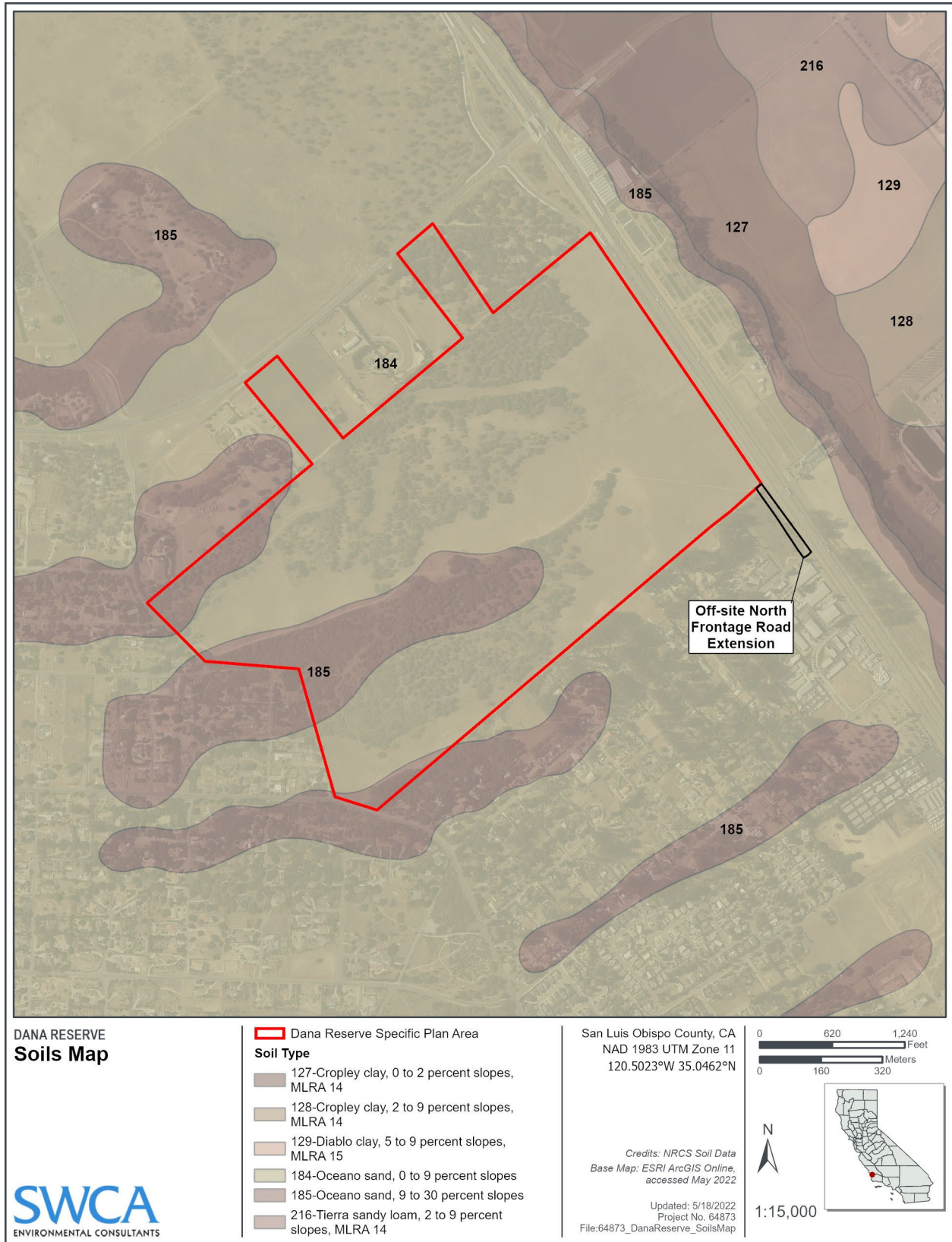


Figure 4.4-1. Soils map.

Oceano sand, 0 to 9 percent slopes (184) and 9 to 30 percent slopes (185), is a very deep and excessively drained soil from stabilized sand dunes formed through deposits of windblown sand. The slope can be nearly flat to moderate (184) to strongly sloping (185). The soil type formed in deposits of windblown sand. Included in this map unit are areas of Baywood fine sand, Garey sandy loam, and dune land. Permeability is rapid, and the available water capacity is low causing droughty conditions making the soil poorly suited for rangeland. Water erosion is slight to moderate (USDA 1984).

4.4.1.1.3 HABITAT TYPES

Habitat types in the project area include coast live oak forest, coast live oak woodland, Burton Mesa chaparral, California perennial grassland group (vegetation with native plants diagnostically present), Mediterranean California naturalized annual grassland (stands strongly dominated by non-native plants), annual brome grasslands alliance, and anthropogenic (Table 4.4-1; Figure 4.4-2; California Native Plant Society [CNPS] 2021a). Habitat classifications are based on the classification system presented in *A Manual of California Vegetation, 2nd Edition* (Sawyer et al. 2009; CNPS 2021a). Habitats were identified to the alliance or association level when possible and to the group level when the on-site habitat did not conform to a known alliance. Sensitive associations were considered when applicable. Global and State ranks are not applied at the group level and, therefore, are not provided for habitat “groups.” Global and State rankings are further discussed in Section 4.4.1.1.5, *Sensitive Natural Communities*

Table 4.4-1. Habitat Types

Habitat Type	Global/ State Rank	Location	Area (acres)
Coast live oak forest (<i>Quercus agrifolia</i> / <i>Toxicodendron diversilobum</i>)	G5/S4	Common on slopes in the project area	38.7
Coast live oak woodland (<i>Quercus agrifolia</i> / <i>Adenostoma fasciculatum</i> – <i>Salvia mellifera</i>)	G3/S3	Throughout project area, commonly integrating with coast live oak forest and Burton Mesa chaparral	78.3
Burton Mesa chaparral (<i>Arctostaphylos [purissima, rudis]</i> Shrubland Special Stands)	G1/S1	Occasional on slopes, in areas lacking canopy cover	36
California perennial grassland group	N/A	Common on lower elevation flats in the project area	126
Mediterranean California naturalized perennial grassland group	N/A	Northern parcel in project area	5.1
Annual brome grasslands alliance	N/A	Northern parcel in project area	3.2
Anthropogenic	N/A	Existing roads and structures, mostly on the northern parcel in project area	1.2
Total			288.5

Coast Live Oak Forest (*Quercus agrifolia* / *Toxicodendron diversilobum*) (G5/S4)

Mature, coast live oak forest occurs on flats and gentle north-trending slopes within the project area. This habitat meets the alliance membership rule of coast live oak comprising greater than 50% average cover in the tree canopy. There are generally few gaps in the canopy with multiple trees creating a continuous overstory. Oak trees within the areas mapped as coast live oak forest are, on average, taller than the oak trees in the areas mapped as coast live oak woodland and Burton Mesa chaparral. This is likely due to a lack of disturbance in the denser forested areas. In addition, fewer trees in the coast live oak forest area show evidence of historic pruning.



Figure 4.4-2. Habitat map.

Other than a single Peruvian pepper tree (*Schinus molle*) in the northeast corner near Cherokee Place and individual pine trees (*Pinus* sp.) near both the northeastern and southwestern boundary, coast live oaks are the only trees present within areas mapped as coast live oak forest. The shaded understory is dominated by non-native annual grasses, poison oak (*Toxicodendron diversilobum*) thickets, and occasional shade-tolerant shrubs, such as coffeeberry (*Frangula californica*), while chaparral species are conspicuously absent. As such, coast live oak forest was identified as the *Quercus agrifolia* / *Toxicodendron diversilobum* association (Sawyer et al. 2009), which has a Global and State Rank of G5/S4, which is not considered a sensitive natural community by the California Department of Fish and Wildlife (CDFW; CDFW 2021b). Special-status plant species such as mesa horkelia (*Horkelia cuneata* var. *puberula*) and Michael's rein orchid (*Piperia michaelii*) are restricted to openings in and around the periphery of coast live oak forest. Of particular note, Pismo clarkia (*Clarkia speciosa* ssp. *immaculata*) is located along the northern edge of coast live oak forest habitat. Coast live oak forest occupies 38.7 acres of the project area.

The following special-status species designated as Species of Special Concern (SSC) by the CDFW (CDFW 2022) occur in coast live oak forest but are unlikely to be observed without appropriately timed focused surveys: northern California legless lizard (*Anniella pulchra*), pallid bat (*Antrozous pallidus*), silver-haired bat (*Lasionycteris noctivagans*), and western red bat (*Lasiurus blossevillii*). The following special-status species designated as Special Animals (SA) by the CDFW also occur in coast live oak forest: hoary bat (*Lasiurus cinereus*) and Yuma myotis (*Myotis yumanensis*) (CDFW 2022). U.S. Fish and Wildlife Service (USFWS) Birds of Conservation Concern (BCC) observed in oak forests include the cavity-nesting oak titmouse (*Baeolophus inornatus*) and Nuttall's woodpecker (*Picoides nuttallii*) (USFWS 2008). Coast live oak forest supports many songbirds, raptors, and common rodents, such as mice, voles, and woodrats. Oak tree canopies, cavities, and loose bark may provide roosting habitat for multiple bat species, including little brown bat (*Myotis lucifugus*) and California myotis (*Myotis californicus*).

Coast Live Oak Woodland (*Quercus agrifolia* / *Adenostoma fasciculatum* – *Salvia mellifera*) (G3/S3)

Coast live oak woodland occurs on gentle slopes and flats within the project area (see Figure 4.4-2). Characteristics of this habitat within the project area meet the alliance membership rule of coast live oak woodland comprising between 20% and 50% cover and a mixture of open and closed canopy. This habitat integrates with adjacent coast live oak forest, Burton Mesa chaparral, and grassland habitats, creating a heterogeneous mosaic. Many of the understory species present in Burton Mesa chaparral are also present here, including crown-sprouting chamise (*Adenostoma fasciculatum*), black sage (*Salvia mellifera*), and sand mesa manzanita (*Arctostaphylos rudis*). However, these areas are not considered Burton Mesa chaparral because oak cover is generally too high (greater than 20%) to be regarded as a shrub-dominated vegetation community (CNPS 2021a). Coast live oak woodland was identified as the *Quercus agrifolia* / *Adenostoma fasciculatum* – (*Salvia mellifera*) association, which is a G3/S3 sensitive natural community (CDFW 2021b). Evidence of historic clearcutting was observed within the coast live oak woodland in the project area along with decades of land management for livestock grazing and fire fuel reduction (see Section 4.4.1.1, *Specific Plan Area*, and Althouse and Meade 2022a).

The coast live oak woodland habitat in the project area supports a unique assemblage of rare plants. All special-status plant species observed within the project area occur within coast live oak woodland or along its gaps and edges. These include sand mesa manzanita, sand buck brush (*Ceanothus cuneatus* var. *fascicularis*), Nipomo Mesa ceanothus (*Ceanothus impressus* var. *nipomensis*), sand almond (*Prunus fasciculata* var. *punctata*), mesa horkelia (*Horkelia cuneata* var. *puberula*), and California spine flower (*Mucronea californica*). Sand mesa manzanita, sand buck brush, Nipomo Mesa ceanothus, and sand almond occur in areas where coast live oak woodland integrates with Burton Mesa chaparral. Mesa horkelia is locally abundant and occurs along the margins of oak woodland and along the dripline of tree canopies where the habitat transitions to more open grassland and shrubland vegetation. Pismo clarkia,

California spineflower (*Mucronea californica*), and Michael's rein orchid were encountered along margins of oak woodland habitat where it transitions to grassland. Coast live oak woodland occupies 78.3 acres within the Specific Plan Area.

Coast live oak woodland habitat within the Specific Plan Area supports Blainville's (Coast) horned lizard (*Phrynosoma blainvillii*), a CDFW SSC (CDFW 2022), which was observed on-site during surveys (Althouse and Meade 2022a). The following special-status species are also supported by coast live oak woodland habitat but are unlikely to be observed without appropriately timed focused surveys: northern California legless lizard, pallid bat, silver-haired bat, western red bat, hoary bat, Yuma myotis. USFWS BCC observed in oak woodlands include the cavity-nesting oak titmouse and Nuttall's woodpecker (USFWS 2008). Coast live oak woodlands support many songbirds, raptors, and common rodents, such as mice, voles, and woodrats. Oak tree canopies, cavities, and loose bark may provide roosting habitat for multiple bat species, including little brown bat and California myotis.

Burton Mesa Chaparral (*Arctostaphylos [purissima, rudis]* Shrubland Special Stands) (G1/S1)

Burton Mesa chaparral is a type of maritime chaparral that is restricted to old, stabilized dune sands of the Lompoc and Nipomo areas along the southern California Coast in northern Santa Barbara and southern San Luis Obispo Counties (CNPS 2021a). Characteristic species of Burton Mesa chaparral (*Arctostaphylos [purissima, rudis]* Shrubland Special Stands) include La Purisima manzanita (*Arctostaphylos purissima*) and/or sand mesa manzanita, which are dominant or characteristically present in the shrub canopy with crown-sprouting chamise, black sage, Eastwood's brittle-leaf manzanita (*Arctostaphylos crustacea* ssp. *eastwoodiana*), California sagebrush (*Artemisia californica*), coyote brush (*Baccharis pilularis*), sand buck brush, Santa Barbara ceanothus (*Ceanothus impressus*), sticky monkeyflower (*Diplacus aurantiacus*), mock heather (*Ericameria ericoides*), golden yarrow (*Eriophyllum confertiflorum*), broom rush-rose (*Crocyanthemum scoparium*) and deer weed (*Acmispon glaber*) (CNPS 2021a). Emergent trees may be present at low cover, including coast live oak or Shreve's oak (*Quercus parvula* var. *shrevei*). Shrubs are generally less than 16 feet, and the canopy is open to continuous (CNPS 2021a). Soils are derived from Pleistocene sand deposits, occasionally marine siltstones overlain with a thin sand layer (CNPS 2021a).

In the project area, Burton Mesa chaparral habitat occurs primarily on south-trending slopes in areas dominated by re-sprouting shrubs with an open canopy (less than 20% oak canopy). Decades of routine brush removal has thinned the endemic chaparral species, such as the rare (California Rare Plant Rank [CRPR] 1B.2) sand mesa manzanita and allowed for the invasion of weedy annual Mediterranean grasses, such as riggut brome (*Bromus diandrus*) and veldt grass (*Ehrharta calycina*). Despite the years of disturbance, sand mesa manzanita persists across the project area, occurring in both the Burton Mesa chaparral (with less than 20% oak canopy) and open woodland habitats (between 20% and 50% oak canopy). The shrub layer in this habitat type is co-dominated by crown-sprouting chamise and black sage. Additional maritime species present in low but persistent cover in the project area include common deer weed, sticky monkeyflower, and broom rush-rose, which are characteristic of the Burton Mesa chaparral association, along with coffeeberry and hollyleaf cherry (*Prunus ilicifolia*).

Burton Mesa chaparral (*Arctostaphylos [purissima, rudis]* Shrubland Special Stands) is a Sensitive Natural Community listed by the CDFW as G1/S1 and is considered a Special Stand by CNPS, which defines this habitat type by the characteristic presence of sand mesa manzanita (CDFW 2021b; CNPS 2021a). Special-status species in this habitat include scattered individuals and groups of sand mesa manzanita, sand almond, sand buck brush, mesa horkelia, and California spineflower.

Coast live oak trees are commonly found within Burton Mesa chaparral, but canopy does not exceed 20% absolute cover. Many of the species described within Burton Mesa chaparral are also present in coast live

oak woodland, as both habitats often integrate. The primary distinction between these two habitats is the canopy cover of coast live oaks, which, when greater than 20%, is considered a woodland or forest. See coast live oak woodland description for further details.

California Perennial Grassland Group

Disturbed California perennial grassland group occurs on the sandy flats of the project area, which appear to have been routinely tilled (i.e., disced) and support a unique assemblage of plants species (see Figure 4.4-2). This habitat type does not conform to a described vegetation alliance in the Manual of California Vegetation (online); therefore, it is identified at the group level and does not have a sensitivity rating (CNPS 2021a). The habitat is strongly dominated by non-native annual plants and generally contains 5% relative cover of native species.

Native perennial plants are consistently diagnostically present, although only two native perennial grasses were observed in small patches: salt grass (*Distichlis spicata*) and Coast range melic (*Melica imperfecta*). All the other grasses are introduced species. The most abundant native plants include California croton (*Croton californicus*) and California spineflower with occasional patches of slender buckwheat (*Eriogonum gracile* var. *gracile*) and emergent shrubs, including deer weed, broom rush-rose, mock heather, California sagebrush, and coastal bush lupine (*Lupinus arboreus*). Ubiquitous introduced annual species, such as ripgut brome and filaree species (*Erodium botrys*, *E. brachycarpum*, and *E. cicutarium*) are also present. Occasional mature individual coast live oak trees are scattered throughout this habitat type.

This habitat supports special-status plant species, including abundant California spineflower and occasional mesa horkelia, sand almond, and sand mesa manzanita. This habitat is utilized by a variety of birds, mammals, reptiles, and invertebrates.

Mediterranean California Naturalized Annual and Perennial Grassland Group

The smaller parcels along the western, northwestern and southeastern portions of the project area contain habitat identified as Mediterranean California naturalized perennial grassland group (see Figure 4.4-2). This habitat is dominated by non-native perennial veldt grass. Perennial veldt grass is a highly invasive plant species, known to invade sandy soils on the California Central Coast. This habitat has low plant diversity and is nearly a monoculture of perennial veldt grass. Other occasional plant species include ripgut brome, common deer weed, wild oats (*Avena fatua*), telegraph weed (*Heterotheca grandiflora*), Santa Barbara wirelettuce (*Stephanomeria elata*), and California croton. A few mature individual coast live oak trees are scattered throughout this habitat type, but oak canopy cover is sparse. This habitat type does not conform to a described vegetation alliance in the Manual of California Vegetation (online); therefore, it is identified at the group level and does not have a sensitivity rating (CNPS 2021a).

This habitat supports special-status plant species, including multiple mature sand buck brush and Nipomo Mesa ceanothus as well as a single individual of mesa horkelia. This habitat is utilized by a variety of birds, mammals, reptiles, and invertebrates. American badger (*Taxidea taxus*) dens were observed in this habitat.

Annual Brome Grassland - Herbaceous Semi-Natural Alliance

The northern portion of the project area contains annual brome grassland. This habitat is dominated by a mix of non-native annual grasses with abundant ripgut brome, perennial veldt grass, wild oats, and short-fruited filaree (*Erodium brachycarpum*) and occasional California croton and scattered individual mock heather. Ripgut brome constitutes over 60% relative cover with other non-natives in the herbaceous layer, with a variety of annuals at low cover, conforming to the membership rules of the *Avena* spp. - *Bromus*

spp. Herbaceous Semi-Natural Alliance (CNPS 2021a). No special-status plant species were observed in this habitat.

No Global or State rank is applied to this vegetation alliance because it is comprised of non-native species (CDFW 2021a). This habitat is utilized by a variety of birds, mammals, reptiles, and invertebrates. A shed skin of a Northern Pacific rattlesnake (*Crotalus oreganus* ssp. *oreganus*) was observed in this habitat.

Anthropogenic

In general, anthropogenic land uses on-site consist of areas that no longer support native vegetation due to physical alteration. This may include construction of structures, hardscape, pavement and/or landscaping. Anthropogenic land consists of approximately 1.2 acres comprised of Cherokee Place roadway and a private driveway and associate structures used for storage (parcel located northeast of Cherokee Place). Other land uses within this land use category are holding pens for horses and goats, a water tank, garden and landscaped areas, parking areas, and maintained areas for fire/brush clearing purposes. Several isolated oaks occur within this land use classification and were mapped separately from the oak habitats described above.

4.4.1.1.4 POTENTIAL WETLANDS AND JURISDICTIONAL WATERS

No evidence of potentially jurisdictional wetlands or waters were observed in the project area during the 2017 to 2020 surveys (Althouse and Meade 2022a). The very deep, excessively drained sandy soils of these ancient dunes have rapid permeability with low water capacity.

4.4.1.1.5 SENSITIVE NATURAL COMMUNITIES

Sensitive Natural Community is a statewide designation given by the CDFW to specific vegetation associations of ecological importance. Rarity and ranking of Sensitive Natural Communities involves the knowledge of range and distribution of a given type of vegetation, and the proportion of occurrences that are of good ecological integrity (CDFW 2021a; CDFW 2021c). Evaluation is conducted at both the Global (G) and State (S) levels, resulting in a rank ranging from 1 for very rare and threatened to 5 for demonstrably secure. Natural Communities with ranks of S1 through S3 are considered Sensitive Natural Communities in California and may need to be addressed in the environmental review processes of CEQA and its equivalents.

The project area contains two recognized sensitive natural communities: Burton Mesa chaparral (*Arctostaphylos [purissima, rudis]* Shrubland Special Stands, G1/S1) and coast live oak woodland (*Quercus agrifolia / Adenostoma fasciculatum* – [*Salvia mellifera*] association, G3/S3) (CDFW 2021b). Both habitats support a unique assemblage of rare plant species that are associated with maritime climate and sandy soils.

No additional sensitive natural communities were identified in the project area. California perennial grassland and Mediterranean California naturalized perennial grassland groups do not conform to a known alliance and do not have global or state ranks because ranking systems are applied at the alliance level in *A Manual of California Vegetation* (CNPS 2021a).

4.4.1.1.6 SPECIAL-STATUS PLANT SPECIES

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

- Plants that are listed or proposed for listing as threatened or endangered under the Federal Endangered Species Act (FESA) (50 Code of Federal Regulations [CFR] Section 17.12 for listed plants and various notices in the *Federal Register* for proposed species).

- Plants that are candidates for possible future listing as threatened or endangered under the FESA.
- Plants that meet the definitions of rare or endangered species under CEQA (State CEQA Guidelines Section 15380).
- Plants that are considered by CNPS to be “rare, threatened, or endangered” in California (CRPR 1, 2, and 3).
- Plants that are listed by CNPS as plants about which more information is needed and plants of limited distribution (CRPR 4).
- Plants that are listed or proposed for listing by the State of California as threatened or endangered under the California Endangered Species Act (CESA) (14 CCR Section 670.5).
- Plants that are listed under the California Native Plant Protection Act (NPPA; California Fish and Game Code [CFGF] Section 1900 et seq.).
- Plants that are considered sensitive by other federal agencies (i.e., U.S. Forest Service, Bureau of Land Management), state and local agencies, or jurisdictions.

Althouse and Meade conducted a data search of the California Natural Diversity Database (CNDDDB) (CDFW 2021a) and the CNPS On-line Inventory of Rare and Endangered Plants of California (CNPS 2021b) on June 3, 2020. Other database searches included online museum and herbarium specimen records for locality data within San Luis Obispo, as maintained by the Consortium of California Herbaria (CCH; CCH 2018). The data search area included the Oceano and Nipomo, California U.S. Geological Survey (USGS) 7.5-minute quadrangles and the six surrounding quadrangles—Arroyo Grande Northeast, Guadalupe, Pismo Beach, Point Sal, Santa Maria, and Tar Spring Ridge.

The search results determined that 81 special-status plant taxa are known to occur in the region (Althouse and Meade 2022a; CDFW 2021a). Of those 81 special-status plant taxa, 18 could potentially occur in the project area based on an analysis of their known ecological requirements and the observed habitat conditions in the project area. Seasonally timed botanical surveys, designed to identify special-status plants species, were conducted in 2018, 2019, and 2020. Additional surveys for sensitive botanical resources were conducted at various times between winter 2017 and summer 2021. Table 4.4-2 lists all the biological surveys conducted for the property by Althouse and Meade between 2017 and 2021 (see EIR Appendix E)

Eight special-status plant taxa were detected during the botanical surveys. One federally and state-listed plant—Pismo clarkia—was detected during 2019 and 2020 surveys. A discussion of each taxon with their typical habitat, range, known occurrences, potential to occur on-site, and survey results for the project area are provided in Table 4.4-3 (CNPS 2021b; CDFW 2021a; Jepson Flora Project 2020). Additional discussion is provided in *Special-Status Plant Taxa Observed* for taxa observed during field surveys. Figures 4.4-3 through 4.4-5 show mapped locations of sensitive plant taxa observed on an aerial photograph and topographic map, respectively. Plants are listed in alphabetical order by scientific name.

Table 4.4-2. Biological Surveys

Survey Date	Biologist(s)	Weather Observations	Activities
12/6/2017	LynneDee Althouse	56°F, 0–5 mph, clear	Initial site visit
12/19/2017	Shannon Henke, Darcee Guttilla	59–66°F, wind 0–8 mph, 5% cloud cover	Botanical survey and wildlife survey
12/29/2017	Shannon Henke, Darcee Guttilla	56–82°F, wind 0–10 mph, 30% cloud cover	Botanical survey and wildlife survey
4/13/2018	Shannon Henke, Darcee Guttilla	55–72°F, wind 12 mph, clear	Botanical survey and wildlife survey
5/18/2018	Shannon Henke	55–68°F, wind 12–24 mph, 50% cloud cover	Botanical survey
6/1/2018	Shannon Henke	64–74°F, wind 13 mph, clear	Botanical survey
6/12/2018	LynneDee Althouse, Shannon Henke	70–80°F, wind 0–2 mph, clear	Botanical survey
7/3/2018	Shannon Henke	61°F, wind 5 mph, 10% cloud cover	Botanical survey
6/14/2019	Kyle Nessen, Mallory Patino, Darcee Guttilla, Shannon Henke, LynneDee Althouse	55°F, wind 0–2 mph, 100% cloud cover	Botanical survey, oak tree inventory, bird point count
8/29/2019	Kyle Nessen, Charleen Rhodes	60–77°F, wind 0–25 mph, 30% cloud cover	Oak tree inventory and botanical survey
9/18/2019	Kyle Nessen	52–78°F, wind 8–14 mph, 25% cloud cover	Oak tree inventory and botanical Survey
9/19/2019	Kyle Nessen	57–75°F, wind 6–24 mph, 100% cloud cover	Oak tree inventory and botanical survey
4/15/2020	Jason Dart, Greg Salas, Bret Robinson	60–72°F, wind 1–5 mph, 0% cloud cover	Legless lizard, badger, and nesting bird surveys
4/17/2020	Will Knowlton	60–70°F, wind 1–5 mph, 100% cloud cover	Nesting bird survey
4/21/2020	LynneDee Althouse, Sarah Termond	65–80°F, wind 0–5 mph, 25% cloud cover	Botanical survey and habitat mapping of 7-acre parcel
4/24/20	Dan Meade	52–83°F, wind 8–14 mph, 25% cloud cover	Invertebrate survey
5/6/2020	Will Knowlton	65–85°F, wind 1–10 mph, 10% cloud cover	Legless lizard, badger, and nesting bird surveys
5/19/2020	LynneDee Althouse, Sarah Termond, Kyle Nessen, Colby Boggs (Rincon Consultants)	65–85°F, wind 0–5 mph, 10% cloud cover	Botanical survey, Pismo clarkia population counts
5/21/2020	Dan Meade	71°F, wind 0–21 mph, clear	Pismo clarkia pollinator survey
5/26/2020	Justin Purnell	60–80°F, wind 5–8 mph, 35% cloud cover	Bat habitat assessment, acoustic monitoring set up, evening emergence survey
5/27/2020	Sarah Termond, Kyle Nessen, Kyle Weichert (Rincon Consultants)	70–85°F, wind 0–5 mph, 10% cloud cover	Botanical survey, Pismo clarkia SCP data collection
6/3/2020	LynneDee Althouse, Sarah Termond, Aaron Harville (MBS Land Surveys), Colby Boggs (Rincon Consultants)	82–90°F, wind 0–5 mph, 10% cloud cover	Pismo clarkia mapping with surveyor
6/9/2020	Sarah Termond	70–90°F, wind 0–5 mph, 10% cloud cover	Botanical survey

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Survey Date	Biologist(s)	Weather Observations	Activities
6/24/2020	LynneDee Althouse	75°F, wind 0–5 mph, clear	Pismo clarkia follow-up
7/21/2020	Bret Robinson	70–80°F, wind 0–5 mph, clear	Reptile cover board inspection and raptor survey
3/9/2021	Kyle Nessen, Adam Searcy	51–58°F, wind 3–11 mph, 35% cloud cover	Site assessment and survey for plant and animal species
4/09/2021	LynneDee Althouse	65°F, gusty wind 10–15 mph, hazy	Pismo clarkia and California spineflower spot-check
4/26/2021	LynneDee Althouse	60°F, breezy 10–15 mph, slightly cloudy	Pismo clarkia and California spineflower spot-check
5/25/2021	Kyle Nessen, Adam Searcy	63–75°F, wind 4–14 mph, 40% cloud cover	Oak tree counting and Pismo clarkia population mapping
5/27/2021	Adam Searcy, Heather Schneider (Santa Barbara Botanic Garden)	50–65°F, wind 2–10 mph, 35% cloud cover	Pismo clarkia tagging for seed collection
6/7/2021	Adam Searcy	52–62°F, wind 1–10 mph, 60% cloud cover	Pismo clarkia census and botanical survey
6/8/2021	Adam Searcy	55–65°F, wind 2–14 mph, 20% cloud cover	Pismo clarkia census and botanical survey
6/16/2021	Adam Searcy	72–92°F, wind 2–8 mph, 35% cloud cover	Oak tree inventory
6/17/2021	Adam Searcy	65–78°F, wind 1–8 mph, 25% cloud cover	Oak tree inventory
6/18/2021	Adam Searcy	61–73°F, wind 2–8 mph, 15% cloud cover	Oak tree inventory
6/21/2021	Adam Searcy	55–66°F, wind 2–9 mph, 45% cloud cover	Oak tree inventory
6/22/2021	Adam Searcy	58–69°F, wind 1–10 mph, 35% cloud cover	Oak tree surveys
7/2/2021	Adam Searcy	56–67°F, wind 1–9 mph, 40% cloud cover	Oak tree surveys
7/12/2021	Adam Searcy	57–70°F, wind 2–8 mph, 30% cloud cover	Pismo clarkia seed collection
1/20/2022	Kyle Nessen, Zach Raposo	56 °F, 0-5 mph, clear	Biological reconnaissance survey of North Frontage Road Extension Parcel, drone flight

Note: All biologists are with Althouse and Meade unless otherwise indicated.

Table 4.4-3. Special-Status Plant Species Observed or That Have Potential to Occur in the Project Area

Scientific Name	Common Name	Legal Status Federal/State/CNPS	Blooming Period	Habitat Preference	Potential to Occur
<i>Arctostaphylos rudis</i>	Sand mesa manzanita	--/--/1B.2	Nov–Feb	Chaparral. Sandy soils. Elevation: <1,000 feet.	Present. Suitable sandy chaparral habitat is present in the project area and species was observed during surveys.
<i>Agrostis hooveri</i>	Hoover's bent grass	--/--/1B.2	Apr–Jul	Open chaparral, oak woodland. Dry sandy soils. Elevation: <1,970 feet.	High. Suitable habitat is present in the project area. CNDDDB #8 (1988) located 3.8 miles west of project area.
<i>Calandrinia breweri</i>	Brewer's calandrinia	--/--/4.2	Mar–Jun	Chaparral, coastal scrub. Disturbed sites, burns. Sandy to loamy soil. Elevation: <3,940 feet.	Moderate. Suitable habitat is present in the project area. CCH record (1948) located 9.5 miles to the north west.
<i>Ceanothus cuneatus</i> var. <i>fascicularis</i>	Sand buck brush	--/--/4.2	Feb–Apr	Coastal chaparral. Sandy substrates. Elevation: <900 feet.	Present. Suitable habitat is present in the project area and species was observed during surveys.
<i>Ceanothus impressus</i> var. <i>nipomensis</i>	Nipomo Mesa ceanothus	--/--/1B.2	Feb–Apr	Chaparral. Canyons, flats. Sandy substrates. Elevation: <650 feet.	Present. Suitable habitat is present in the project area and species was observed during surveys.
<i>Chorizanthe rectispina</i>	Straight-awned spineflower	--/--/1B.3	Apr–Jul	Chaparral, cismontane woodland, coastal scrub. In disintegrating shale, often on granite. Elevation: 650–1,970 feet.	Low. Marginal suitable habitat is present in the project area. CNDDDB #20 (2003) located 7.3 miles to the northwest.
<i>Clarkia speciosa</i> ssp. <i>immaculata</i>	Pismo clarkia	FE/SR/1B.1	May–Jul	Woodland edges, chaparral, disturbed grassland. Openings in sandy soil. Elevation: < 330 feet	Present. Suitable habitat is present in the project area and species was observed during surveys.
<i>Delphinium parryi</i> ssp. <i>blochmaniae</i>	Dune larkspur	--/--/1B.2	Apr–Jun	Coastal chaparral and dunes. Sandy soils. Elevation: <670 feet.	High. Suitable habitat is present in the project area. CNDDDB #23 (1936) located 1.5 miles to the east. Multiple CNDDDB occurrences within near vicinity.
<i>Erysimum suffrutescens</i>	Suffrutescent wallflower	--/--/4.2	Jan–Aug	Stabilized coastal sand dunes, coastal scrub. Coastal dunes and bluffs. Elevation: <500 feet	Low. Project area is inland of species known range and marginal suitable habitat present in the project area. CCH Record #UCSB041306 (1988) located over 5 miles to the west.
<i>Horkelia cuneata</i> var. <i>puberula</i>	Mesa horkelia	--/--/1B.1	Feb–July	Coastal chaparral, woodland. Dry, sandy or gravelly sites. Elevation: 230–2,850 feet.	Present. Suitable habitat is present in the project area and species was observed during surveys.
<i>Horkelia cuneata</i> var. <i>sericea</i>	Kellogg's horkelia	--/--/1B.1	Apr–Sep	Coastal scrub and dunes, coniferous forest, chaparral. Old dunes, coastal sandhills, openings in sand. Elevation: <660 feet.	High. Suitable habitat is present in the project area. CNDDDB #4 (1969) located 1.8 miles to the west.

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Scientific Name	Common Name	Legal Status Federal/State/CNPS	Blooming Period	Habitat Preference	Potential to Occur
<i>Monardella sinuata</i> ssp. <i>sinuata</i>	Southern curly-leaved monardella	--/--/1B.2	Apr–Sep	Chaparral, woodland, coastal sage scrub and dunes. Sandy soils, coastal strand, dune. Elevation: <980 feet.	High. Suitable sandy chaparral and woodland habitats are present in the project area. CNDDDB #28 (1948) located 2.7 miles to the west.
<i>Monardella undulata</i> ssp. <i>undulata</i>	San Luis Obispo monardella	--/--/1B.2	May–Sep	Coastal scrub, stabilized dunes. Stabilized sandy soils. Elevation: <660 feet.	High. Suitable habitat (stabilized sandy soil) is present in the project area. A portion of CNDDDB #37 (1979) occurs within the project area to the south. Additional CCH records in the near vicinity.
<i>Mucronea californica</i>	California spineflower	--/--/4.2	Mar–Aug	Chaparral, woodland, coastal scrub, grassland. Sandy soil. Elevation: <3,280 feet.	Present. Suitable habitat is present in the project area and species was observed during surveys.
<i>Piperia michaelii</i>	Michael's rein orchid	--/--/4.2	April–Aug	Coastal scrub, woodland, chaparral. Generally on dry sites. Elevation: <2,300 feet.	Present. Suitable habitat is present in the project area and species was observed during surveys.
<i>Prunus fasciculata</i> var. <i>punctata</i>	Sand almond	--/--/4.3	Mar–Apr	Coastal scrub, chaparral, woodland. Sandy flats. Elevation: <660 feet.	Present. Suitable habitat is present in the project area and species was observed during surveys.
<i>Scrophularia atrata</i>	Black-flowered figwort	--/--/1B.2	Mar–Jul	Coniferous forest, chaparral, coastal scrub, riparian scrub. Sand, calcium-diatom-rich soils, around swales. Elevation: <1,300 feet.	High. Suitable sandy coastal habitats are present in the project area. CNDDDB #63 (2005) located 2.75 miles to the northwest.

General references: Baldwin et al. 2012; all plant descriptions paraphrased from CNPS 2021b.

Status Codes: --= No status; **Federal:** FE = Federal Endangered; FT=Federal Threatened; **State:** SE=State Endangered; ST= State Threatened; SR= State Rare

California Native Plant Society (CNPS):

Rank 1B = rare, threatened, or endangered in California and elsewhere
 Rank 2 = rare, threatened, or endangered in California, but more common elsewhere
 Rank 3 = plants that about which more information is needed
 Rank 4 = a watch list plants of limited distribution; CBR = Considered but Rejected

Threat Code:

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

Rationale Terms:

Present: Species was or has been observed in the survey area.
 High: Highly suitable habitat and CNDDDB or CNPS occurrence records indicate the species is likely to occur in the project area or the immediate vicinity. High potential is related to presence of appropriate soil, aspect, slope, microsite conditions, and proximity to occupied habitats. Individuals may not have been observed during field surveys; however, the species likely occurs in or near the project area.
 Moderate: Suitable habitat is present in the project area and CNDDDB occurrences or surveys have recorded the species in the vicinity of the project area. Individuals were not observed during field surveys, but the species could be present, at least seasonally or as a transient.
 Low: Marginally suitable habitat is present in the project area, and there are no occurrence records or other historical (i.e., 50 years or older) records in the vicinity of the project area. Individuals were not observed during surveys and are not expected to be present.
 No Potential: Suitable habitat for the species is not present in the Property, the species is a perennial shrub or tree that was not observed during site surveys, and/or the species is not known to occur in the region.

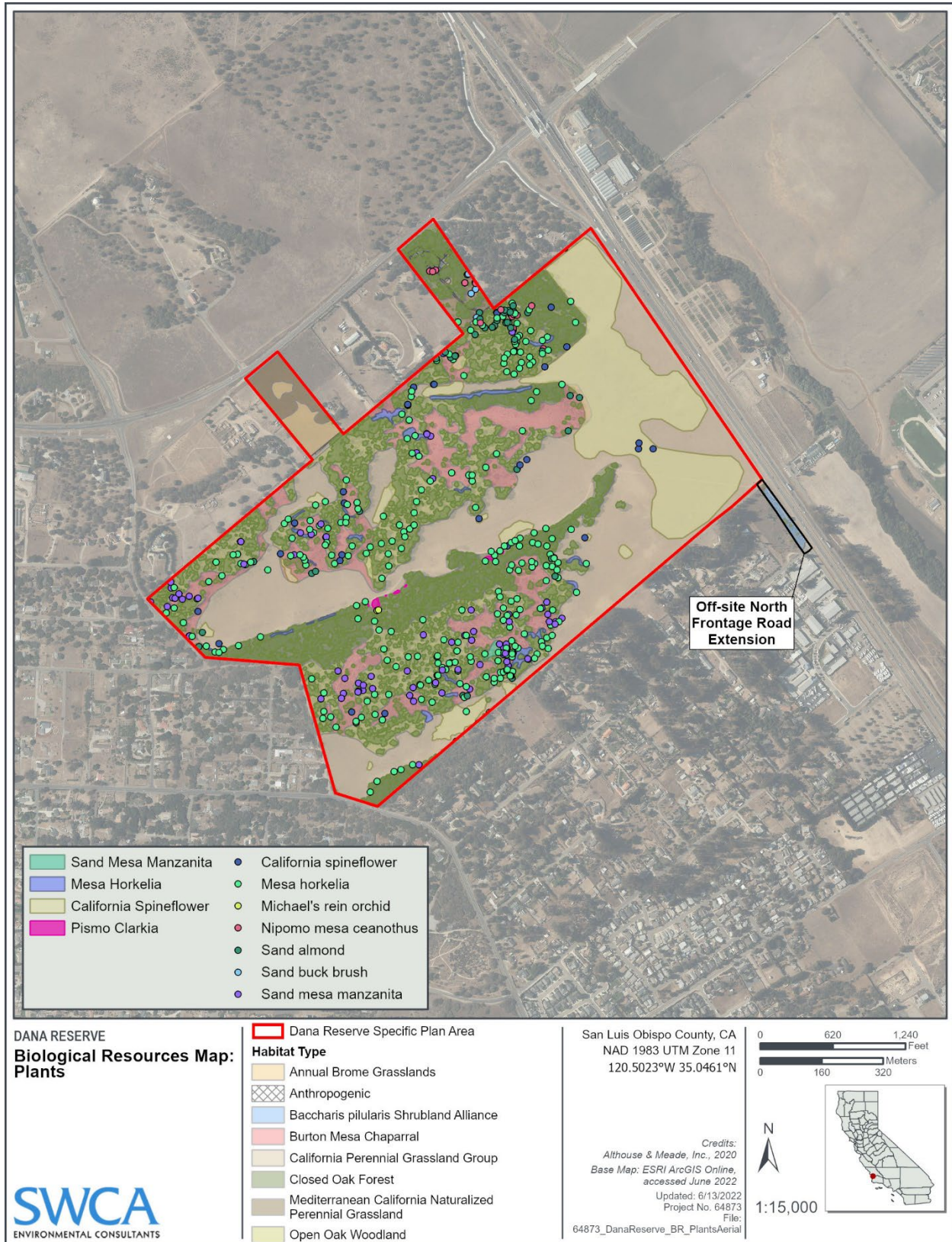


Figure 4.4-3. Biological resources map: plants on aerial.

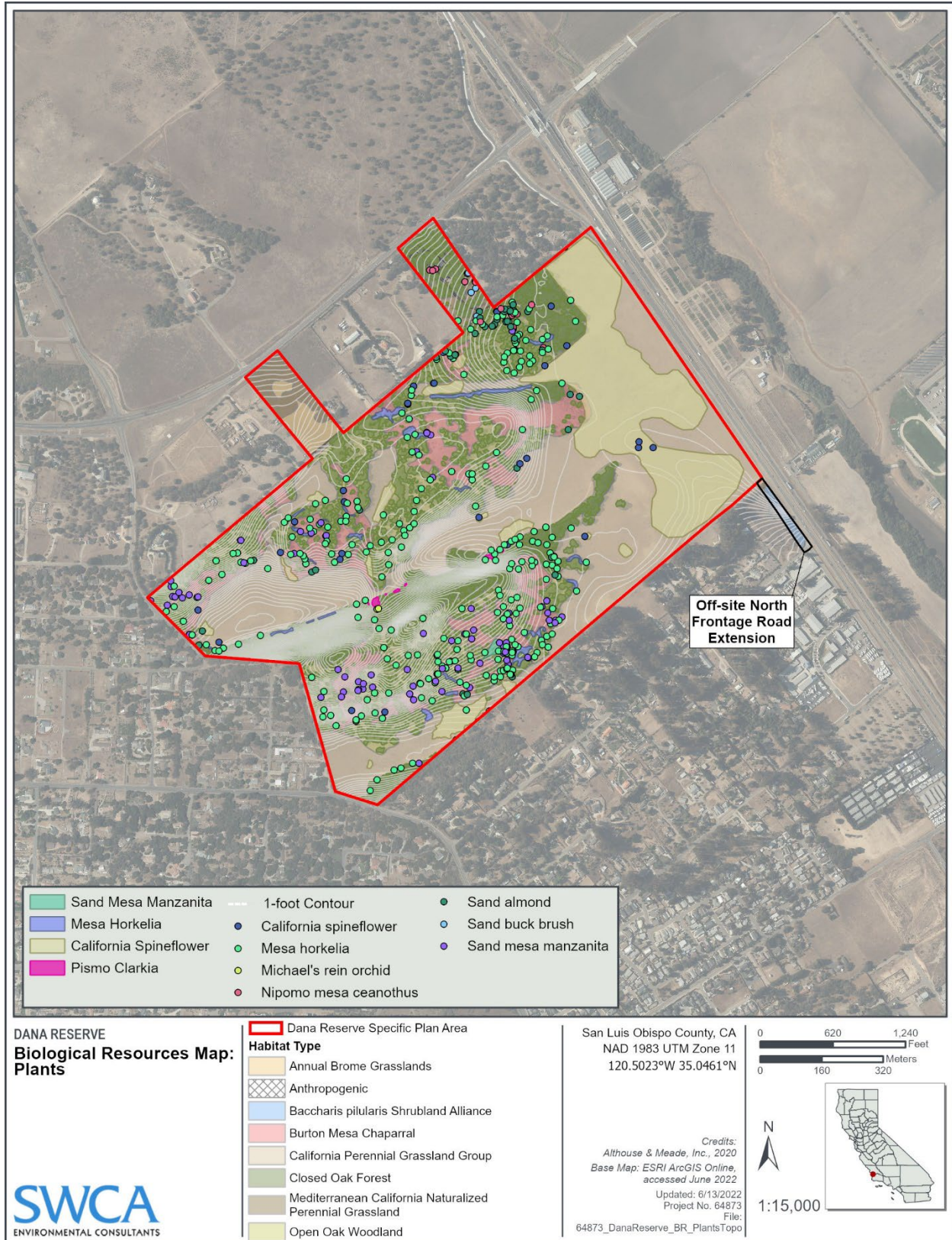


Figure 4.4-4. Biological resources map: plants on topographic map.

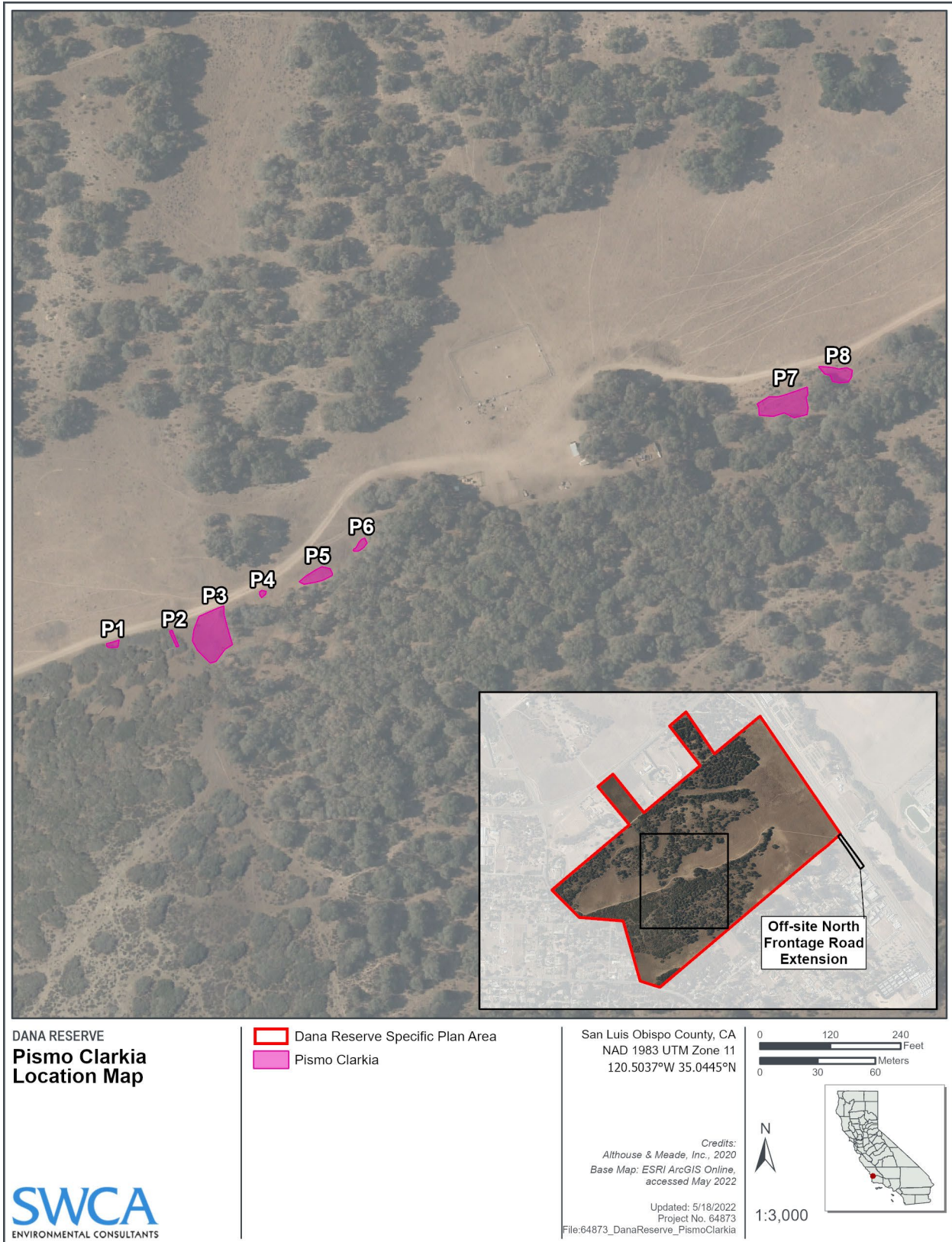


Figure 4.4-5. Pismo clarkia detailed locations map.

Special-Status Plant Taxa Observed

State-Listed Plants

PISMO CLARKIA

Pismo clarkia is listed as Endangered under the FESA, is listed as Rare by the State of California under the NPPA and is a CRPR 1B.1 subspecies endemic to southern San Luis Obispo County. It is known to occur on sandy soils in disturbed grassland, openings in chaparral, and edges of woodland habitats below 330 feet elevation. It is an annual herb that typically blooms between May and July. The closest known records range from approximately 1.4 to 1.9 miles west of the project area (CNDDDB #10, #16, and #17) and are reported as possibly extirpated. The closest known record presumed to be extant is approximately 3.1 miles northwest of the project area (CNDDDB #21). The sandy soils in grassland, chaparral, and woodland habitats in the project area are highly suitable for this taxon. A reference site was visited, and confirmed Pismo clarkia was in bloom on May 18, June 1, June 12, and July 3, 2018, at the nearby known occurrence in Arroyo Grande (CNDDDB #8). Pismo clarkia was not detected in the project area during the 2017 and 2018 studies; however, Pismo clarkia was detected in the project area during the 2019 and 2020 surveys (see Figures 4.4-3 and 4.4-4; EIR Appendix E). The occurrence consists of eight micro-populations (patches) comprising 0.22 acre and occurs immediately south of a 0.25-mile section of the main dirt access road in the central portion of the project area (see Figure 4.4-5). The population was assessed in peak bloom on May 19, 2020, and 6,139 individuals were counted. Patch boundary extents were flagged by botanists and then recorded by licensed surveyor Aaron Harville (MBS Land Surveys; see Figure 4.4-5) on June 3, 2020.

California Rare Plant Rank 1B

SAND MESA MANZANITA

Sand mesa manzanita is a CRPR 1B.2 species endemic to San Luis Obispo and Santa Barbara Counties. It is known to occur on sandy soils in maritime chaparral and coastal scrub habitats less than 1,250 feet elevation, and typically blooms between November and February. Sandy soil in the project area's chaparral and woodland habitats is highly suitable for this species. A portion of a known record (CNDDDB #16) occurs in the project area. Within the project area, 324 sand mesa manzanitas were detected during the 2017 to 2020 surveys (see Figures 4.4-3 and 4.4-4; EIR Appendix E). Individuals are scattered across the project area and the majority are less than 2 feet tall. Stumps appear to have been previously burned or masticated and are regenerating from underground root burls.

NIPOMO MESA CEANOTHUS

Nipomo Mesa ceanothus is a CRPR 1B.2 variety endemic to Santa Barbara and San Luis Obispo Counties. It is known to occur in chaparral habitats on sandy soils below 660 feet elevation. It is an evergreen shrub that typically blooms between February and April. The sandy chaparral habitat in the project area is highly suitable for this taxon. Within the project area, 50 Nipomo Mesa ceanothus shrubs were detected during the 2017 to 2020 surveys (see Figures 4.4-3 and 4.4-4; EIR Appendix E). Individuals predominantly occur in the northeastern portion of the project area, and many are less than 4 feet tall.

MESA HORKELIA

Mesa horkelia is a CRPR 1B.1 variety endemic to the region from San Luis Obispo County to San Diego County. It occurs on sandy and gravelly substrates in coastal chaparral and woodland habitats between 230 and 2,800 feet elevation. It is a matted, perennial herb that typically blooms between February and

July. The closest known record is approximately 7.4 miles west of the project area (CNDDDB #91). The sandy woodland and chaparral habitats in the project area are highly suitable for this variety. Approximately 7,553 mesa horkelia rosettes were detected across the project area during the 2017 to 2020 surveys, predominantly within or near coast live oak woodland. Plants were frequently encountered along the dripline of oak tree canopy (see Figures 4.4-3 and 4.4-4; EIR Appendix E).

California Rare Plant Rank 4

CALIFORNIA SPINEFLOWER

California spineflower is a CRPR 4.2 species that occurs from Monterey to San Diego Counties. It is an annual herb that grows in sandy soils in grassland, coastal scrub, woodland, and chaparral habitats below 3,280 feet elevation. It typically blooms between March and August. The sandy woodland, chaparral, and dune habitats in the project area are highly suitable for this species. California spineflower was abundant within the grassland habitat in the project area during the 2017 to 2020 surveys. The delicate plant was dispersed in a mosaic across approximately 42.6 acres (see Figures 4.4-3 and 4.4-4; EIR Appendix E). Distribution of these plants across the occupied habitat is patchy. Less than 15% of the absolute vegetative cover is California spineflower in occupied grassland habitat. This cover appears to vary significantly from year to year, depending on seasonal conditions and grazing intensity the previous year. The northeastern portion of the project area near US 101 supports the largest concentration of plants, with smaller patches scattered across the remainder of the project area. Patch densities were variable. Aerial review of historic CCH records within an eight-quadrangle search of the project area reveals development and agriculture have substantially reduced the local extent of California spineflower.

SAND BUCK BRUSH

Sand buck brush is a CRPR 4.2 variety endemic to Santa Barbara and San Luis Obispo Counties. It is known to occur in coastal chaparral habitats on sandy soils below 900 feet elevation. It is an evergreen shrub that typically blooms between February and April. The sandy chaparral habitat in the project area is highly suitable for this taxon. Within the project area, 20 sand buck brush shrubs were detected during the 2017 to 2020 surveys (see Figures 4.4-3 and 4.4-4; EIR Appendix E). Individuals predominantly occur in the northeastern portion of the project area, and many are less than 4 feet tall. Sixteen CCH records exist within an eight-quadrangle search, with aerial review depicting two records likely extirpated due to development/agriculture and all others presumed extant.

MICHAEL'S REIN ORCHID

Michael's rein orchid is a CRPR 4.2 variety endemic to the region from San Luis Obispo County to San Diego County. It occurs in dry sites within coastal scrub, woodland, and chaparral below 700 meters elevation. It is a perennial herb that typically blooms between April and August. The coast live oak and chaparral habitats in the project area are highly suitable for this species. Within the project area, seven Michael's rein orchid individuals were detected during the 2020 surveys. All individuals were located within 50 feet of Pismo clarkia Patch 3 along the edge of coast live oak woodland in the central portion of the project area (see Figures 4.4-3 and 4.4-4; EIR Appendix E).

SAND ALMOND

Sand almond is a CRPR 4.3 variety endemic to San Luis Obispo and Santa Barbara Counties. It is known to occur in sandy habitats in maritime chaparral, coastal dune and scrub, and woodland habitats below 200 meters elevation. It is a deciduous shrub that typically blooms between March and April but was observed blooming in the project area in early June. The sandy woodland, chaparral, and dune habitats in the project area are highly suitable for this taxon. Sand almond was detected in the project area during

2017 to 2020 surveys. Across the project area, 141 sand almond plants were detected, primarily near the edges of the oak woodland habitat (see Figures 4.4-3 and 4.4-4). Ten CCH records are known within an eight-quadrangle search. Aerial review shows that two records in San Luis Obispo County are likely extirpated from development/agriculture.

4.4.1.1.7 SPECIAL-STATUS WILDLIFE SPECIES

For the purposes of this section, special-status wildlife species are defined as the following:

- Wildlife that are listed or proposed for listing as threatened or endangered under the ESA (50 CFR 17.11 for listed animals and various *Federal Register* notices for proposed species).
- Wildlife that are candidates for possible future listing as threatened or endangered under the FESA.
- Wildlife that meet the definitions of rare or endangered species under CEQA (State CEQA Guidelines Section 15380).
- Wildlife that are listed or proposed for listing by the State of California as threatened and endangered under the CESA (14 CCR 670.5).
- Wildlife that are SSC to the CDFW.
- Wildlife that are fully protected in California (CFGF Sections 3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians]).
- Birds that are BCC to the USFWS.

Althouse and Meade (2021) conducted a data search from the CNDDDB (CDFW 2021a) on June 3, 2020. The data search area included the Oceano and Nipomo, California USGS 7.5-minute quadrangles and the six surrounding quadrangles—Arroyo Grande Northeast, Guadalupe, Pismo Beach, Point Sal, Santa Maria, and Tar Spring Ridge.

The search results determined that 47 special-status animal species are known to occur in the region (see EIR Appendix E). Of those 47 special-status animal species, 17 could potentially occur in the project area based on an analysis of their known ecological requirements and observed habitat conditions in the project area.

General wildlife surveys were conducted in winter 2017 and spring 2018. A bird point count survey was conducted on June 14, 2019, and nesting bird surveys were conducted on April 15, April 17, and May 6, 2020. Focused legless lizard and badger surveys were conducted on April 14 and May 6, 2020. Additional surveys for reptiles (cover board inspection) and raptors were conducted on July 21, 2020. A focused acoustic survey for bats was conducted on May 26, 2020, and a focused invertebrate survey was conducted on April 24, 2020. A list of all surveys conducted on the project area by Althouse and Meade is listed in Table 4.4-2.

Nine special-status animal species were detected on-site as a result of the focused surveys between 2017 and 2020. However, there are still appropriate habitat conditions for nine other special-status animal species that could still potentially occur in the project area. A discussion of each taxon, including their federal, state, and CDFW listing status; typical nesting or breeding period; habitat preference; potential for occurrence on-site; and detection of the species within the project area is provided in Table 4.4-3 (CDFW 2021a). Figure 4.4-6 shows mapped locations of sensitive animal species observed in the project area.

Table 4.4-4. Special-Status Animal Species Detected or That Have Suitable Habitat within the Project Area

Scientific Name	Common Name	Legal Status Federal/ State/CDFW	Habitat Preference	Potential to Occur
Insects				
<i>Bombus caliginosus</i>	Obscure bumble bee	--/--/SA	Open coastal grasslands and meadows. Food plant genera include <i>Baccharis</i> , <i>Cirsium</i> , <i>Lupinus</i> , <i>Lotus</i> , <i>Grindelia</i> , and <i>Phacelia</i> .	Low. Habitat and nectar sources are present in the project area. A focused sensitive invertebrate survey provided negative results for this species.
<i>Bombus occidentalis</i>	Western bumble bee	--/SCE/SA	Wide variety of natural, agricultural, urban, and rural habitats. Flower-rich meadows of forests and subalpine zones.	Low. Suitable habitat is available in the project area. Closest known historical occurrence (CNDDB #279) is located 14 miles northwest. A focused sensitive invertebrate survey provided negative results for this species.
<i>Danaus plexippus plexippus</i>	Monarch butterfly	FC/--/SA	Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby.	Moderate. Individual butterflies are likely to be present in the project area, but no overwintering aggregations were observed. Suitable habitat is not available in the project area, but the eucalyptus adjacent to the property may provide suitable overwintering habitat. The eucalyptus groves along the NCSO off-site water-related improvements along North Oakglen Avenue may also provide suitable overwintering habitat.
Reptiles				
<i>Anniella pulchra</i>	Northern California legless lizard	--/--/SSC	Sandy or loose loamy soils under coastal scrub or oak trees. Soil moisture essential.	High. Suitable habitat is available in the project area.
<i>Emys marmorata</i>	Western Pond Turtle	--/--/SSC	Permanent or semi-permanent streams, ponds, lakes.	High. Suitable habitat is present in Nipomo Creek, which is part of the NCSO off-site water-related improvement area along East Tefft Street.
<i>Phrynosoma blainvillii</i>	Blainville's (coast) horned lizard	--/--/SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes.	Present. Two observations; suitable habitat is available in the project area. This species was observed during focused surveys.
<i>Rana draytonii</i>	California red-legged frog	FT/--/SSC	Lowlands and foothills in or near sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11 to 20 weeks for larval development.	Low. Nipomo Creek and its tributaries provide suitable habitat for the species, which is part of the NCSO off-site water-related improvement area. However, there are no documented occurrences within the Nipomo Creek watershed.
<i>Thamnophis hammondi</i>	Two-striped gartersnake	--/--/SSC	Coastal California from Salinas to Baja, sea level to 7000 feet, aquatic, in or near permanent water, streams with rocky beds and riparian growth	Low. Nipomo Creek and its tributaries provide suitable habitat for the species, which is part of the NCSO off-site water-related improvement area. However, there are no documented occurrences within the Nipomo Creek watershed.

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Scientific Name	Common Name	Legal Status Federal/ State/CDFW	Habitat Preference	Potential to Occur
Birds				
<i>Accipiter cooperii</i>	Cooper's hawk	--/--/WL (nesting)	Oak woodland, riparian, open fields. Nests in dense trees, especially coast live oak.	Present. This species was observed during 2020 surveys foraging in the coast live oak woodland habitat.
<i>Accipiter striatus</i>	Sharp-shinned hawk	--/--/WL	Riparian, coniferous, and deciduous woodlands near water.	Moderate. Suitable prey (passerines) is available in the project area.
<i>Athene cunicularia</i>	Burrowing owl	--/--/SSC	Burrows in squirrel burrow complexes in open habitats with low vegetation.	Low. Suitable habitat (grazed grassland and squirrel burrows) available in the project area. The Specific Plan Area is located in the overwintering area of their range within California (California Wildlife Habitat Relationship [CWHR] System 2022), where they occur in low densities. While suitable habitat in the form of ground squirrel burrows and grazed perennial grassland is present in the project area, they are unlikely to occur. None were observed on the Specific Plan Area during any of the surveys.
<i>Baeolophus inornatus</i>	Oak titmouse	BCC/--/ WL (nesting)	Nests in cavities in oak woodland habitat. Non-migratory.	Present. Numerous species were observed during the 2017 to 2020 surveys.
<i>Elanus leucurus</i>	White-tailed kite	--/FP/--	Nests in dense tree canopy near open foraging areas	Present. Suitable nesting and foraging habitat are available in the project area. This species was observed during surveys.
<i>Empidonax traillii extimus</i>	Southwestern willow flycatcher	FE/--/SSC	Breeding migrant in riparian woodlands in southern California. Prefers dense, multilayered riparian forests along rivers and streams with perennial flows.	Low. The project area is not located within the current documented range of this species. However, this species has been documented in the Santa Ynez River. Therefore, the presence of individuals cannot be dismissed, particularly in the riparian corridor of Nipomo Creek.
<i>Picoides nuttallii</i>	Nuttall's woodpecker	BCC/--/--	Oak, riparian woodlands.	Present. Nuttall's woodpecker is a year-round resident of oak woodland habitat on-site and was observed during the 2017 to 2020 surveys.
<i>Spinus lawrencei</i>	Lawrence's goldfinch (Nesting)	BCC/--/SA	Arid and open woodlands within near vicinity of chaparral or other brushy areas, tall annual weed fields, and a water source, such as a stream, small lake, or farm pond. Live oaks (<i>Quercus</i> spp.) and blue oaks (<i>Q. douglasii</i>) are predominant trees where this species nests (Linsdale 1950; Coutlee 1968a as cited in Althouse and Meade 20212a)	Low. Marginally suitable nesting habitat is present in the oak woodland habitat on-site. This species is absent from Ebird records from nearby Nipomo Regional Park (2018-2020). The Ebird range distribution map shows the species' range in lower densities in coastal lowland areas. There are CNDDDB records for this species, but not within the eight-quadrangle search.

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Scientific Name	Common Name	Legal Status Federal/ State/CDFW	Habitat Preference	Potential to Occur
<i>Vireo bellii pusillus</i>	Least Bell's vireo	FE/SE/--	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, coyote brush, and mesquite.	Low. The riparian corridor along Nipomo Creek could potentially provide suitable habitat for range-expanding individuals. The nearest known occurrence of this species is from Jim May Park in Santa Maria on July 28, 2019, approximately 13.35 miles south of the project area (eBird 2021). Therefore, the possible presence of individuals cannot be dismissed.
Mammals				
<i>Antrozous pallidus</i>	Pallid bat	--/--SSC	Rock crevices, caves, tree hollows, mines, old buildings, and bridges.	Present. Limited roosting habitat (no structures and few tree cavities) in the project area. Vocalizations detected during 2020 acoustic surveys
<i>Lasionycteris noctivagans</i>	Silver-haired bat	--/--SSC	Coastal and montane forests, often feeds over water. Roosts in hollow trees, loose bark, woodpecker cavities, rarely in rocks.	Present. Suitable roosting and foraging habitat are available in the project area. Vocalizations detected during 2020 acoustic surveys.
<i>Lasiurus cinereus</i>	Hoary bat	--/--SA	Forages in open habitats or habitat mosaics with trees. Roosts in dense foliage of medium to large trees. Feeds on moths. Requires water.	Present. Suitable habitat is available in the project area. Vocalizations detected during 2020 acoustic surveys
<i>Lasiurus blossevillii</i>	Western red bat	--/--SSC	Roosts primarily in trees, from sea level up through mixed conifer forests.	High. Suitable habitat is available in the project area. Not detected during 2020 acoustic surveys.
<i>Myotis yumanensis</i>	Yuma myotis	--/--SA	Caves, mines, buildings, tree cavities, rock crevices, or under bridges. Feeds near open water	Present. Suitable habitat is available in the project area. Vocalizations detected during 2020 acoustic surveys.
<i>Taxidea taxus</i>	American badger	--/--SSC	Needs friable soils in open ground with abundant food source, such as California ground squirrel (<i>Otospermophilus beecheyi</i>).	Present. Several dens observed; suitable grassland habitat and ground squirrels in the project area.

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

Status Codes: --= No status; **Federal:** FE = Federal Endangered; FT= Federal Threatened; FC= Federal Candidate; CH= Federal Critical Habitat; PCH= Proposed Federal Critical Habitat; MBTA= Protected by Federal Migratory Bird Treaty Act; BCC: USFWS Birds of Conservation Concern; **State:** SE= State Endangered; ST= State Threatened; SCT= State Candidate Threatened, SCE= State Candidate Endangered; **CDFW:** SSC= Species of Special Concern; FP= Fully Protected Species; SA= Not formally listed but included in CDFW Special Animals List; WL= Watch List

Rationale Terms:

Present: Species was or has been observed in the survey area.

High: Highly suitable habitat and CNDDB or CNPS occurrence records indicate the species is likely to occur in the project area or the immediate vicinity. High potential is related to presence of appropriate soil, aspect, slope, microsite conditions, and proximity to occupied habitats. Individuals may not have been observed during field surveys; however, the species likely occurs in or near the project area.

Moderate: Suitable habitat is present in the project area and CNDDB occurrences or surveys have recorded the species in the vicinity of the project area. Individuals were not observed during field surveys, but the species could be present, at least seasonally or as a transient.

Low: Marginally suitable habitat is present in the project area, and there are no occurrence records or other historical (i.e., 50 years or older) records in the vicinity of the project area. Individuals were not observed during surveys and are not expected to be present.

No Potential: Suitable habitat for the species is not present in the Property, the species is a perennial shrub or tree that was not observed during site surveys, and/or the species is not known to occur in the region.



Figure 4.4-6. Biological resources map: animals.

Special-Status Animal Taxa Observed

Blainville's (Coast) Horned Lizard

Blainville's (coast) horned lizard, a CDFW SSC, is distributed from northern Baja California through northern California, occurring in open areas of valley foothill hardwood, conifer, riparian, pine-cypress, juniper, and annual grassland habitats (CDFW 2007). Blainville's horned lizard needs friable sandy soil with rocks and logs essential for burrows and reproduction (CDFW 2007; Gerson 2011). Appropriate habitat for Blainville's horned lizard must include an abundance of the native harvester ant (*Pogonomyrmex* and *Messor* sp.). Non-native Argentine ants (*Linepithema humile*) are detrimental to Blainville's horned lizard food resources, as they outcompete the native harvester ant, and the lizard will not eat the Argentine ant (Gerson 2011). Very little data exists on the habitat requirement for reproduction of Blainville's horned lizard; however, it has been reported that in southern California, the egg-laying season is late May through June (CDFW 2016). The closest CNDDDB occurrence of Blainville's horned lizard (CNDDDB #675) is a 2008 record approximately 4.6 miles southeast of the project area on the south side of the Santa Maria River, 0.7 mile west of US 101; four adults were observed in sandy soils with coyote brush, willow, and mulefat. The project area has suitable sandy soils and habitat for Blainville's horned lizard. Two Blainville's horned lizards were observed in the project area in 2018 and 2020.

Cooper's Hawk

Cooper's hawk (*Accipiter cooperii*), a CDFW Watch List species (for nesting occurrences only), occurs regularly in California during the winter months and during spring and fall migration (CDFW 2020a). It is generally regarded as a regular but uncommon nesting species in San Luis Obispo County (Hall et al. 1992). Cooper's hawk frequents oak and riparian woodland habitats, and increasingly urban areas, where it preys primarily on small birds (Rosenfield et al. 2020). One Cooper's hawk was observed foraging overhead during the 2020 site surveys.

Nuttall's Woodpecker

Nuttall's woodpecker, a USFWS BCC (USFWS 2008), with a current range that is limited to California, extending from the lower elevations of the Cascade-Sierra Nevada crest to the coast and as far north as Humboldt County and as far south as San Diego County. Suitable habitats for Nuttall's woodpecker include riparian, deciduous, and oak woodland where it forages for invertebrates in the oak bark and takes cover in the leafy foliage and tree cavities. The breeding season is from late March to early July. As a primary cavity nester, Nuttall's woodpecker is important to other cavity nesting birds (Monahan and Koenig 2006). It excavates nesting cavities in the dead limbs of oak, cottonwood, willow, alder, and sycamore. Nuttall's woodpecker eats mostly insects but will also eat nuts, sap berries and poison-oak seeds (CDFW 2016). Nuttall's woodpecker is a year-round resident of oak woodland habitat on-site and was observed during the 2017 to 2020 surveys.

Oak Titmouse

Oak titmouse is on the CDFW Watch List, is a USFWS BCC (USFWS 2008) due to loss of nesting habitat, and has a Global and State rank of 4 (apparently secure). Oak titmouse is an oak woodland obligate, nesting in cavities of oak trees. It is a common species in oak woodlands on the central coast but is tracked by CDFW due to statewide losses of oak woodland habitat. There are no CNDDDB occurrence records within the eight-quadrangle search radius; however, oak titmouse is a year-round resident in the coast live oak woodland habitat on-site. Numerous oak titmice were observed during the 2017 to 2020 surveys. Preconstruction surveys are recommended prior to activities that affect oak trees.

Pallid Bat

Pallid bat, a CDFW SSC with a Global rank of 5 (secure) and State rank of 3 (vulnerable), is a large, long-eared bat that occurs throughout the state and occupies a wide variety of habitats. Although most common in open, dry areas ideal for foraging with rocky outcrops for roosting, pallid bat is also found regularly in oak and pine woodlands where it roosts in caves, mines, rock crevices, hollow trees, and buildings (Nowak 1994). Bridges are also frequently used by pallid bat, often as night roosts between foraging periods (Pierson et al. 1996). There were no CNDDDB records for the pallid bat in the eight-quadrangle search, which is likely due to their nocturnal activity patterns and requirement for focused surveys. Due to the presence of large coast live oak trees and sparsely vegetated habitats suitable for foraging, the pallid bat has a high potential to occur in the project area. A focused survey for bat roosts and species identification was conducted as part of this study. Pallid bats were observed visually and acoustically during the emergence survey.

Silver-Haired Bat

Silver-haired bat, a CDFW SSC, is a forest-dwelling species generally concentrated in the northern half of the state. However, there are reports of this species in San Luis Obispo, Santa Barbara, and Ventura Counties. This species was detected acoustically at three locations on Vandenberg Air (now Space) Force Base in 1997 and 1998 (Pierson et al. 2002). There were no CNDDDB records for the silver-haired bat in the eight-quadrangle search. Silver-haired bat roosts almost exclusively in trees, using woodpecker hollows and flaking bark. It forages above the canopy, in clearings, and in riparian corridors along water courses. Oak woodlands provide suitable roosting habitat and open fields provide suitable foraging habitat. Silver-haired bats were confirmed present during 2020 nighttime acoustic surveys.

Hoary Bat

Hoary bat, a Special Animal tracked by CDFW, is widely distributed throughout most of California, though it is uncommon in southeastern deserts. Roosting habitat is primarily woodlands and forests, and it forages for moths in open areas and along habitat edges (CDFW 2016). Hoary bat roosts mainly in dense foliage of medium to large deciduous or coniferous trees, near the ends of branches, typically in trees at the edge of a clearing. Roosting has also been documented in caves, under rock ledges, and in tree hollows (Bolster 2005). There were no CNDDDB records for hoary bat in the eight-quadrangle search, which is likely due to their nocturnal activity patterns and requirement for focused surveys. Suitable roosting habitat is present in oak woodlands and open areas provide suitable foraging habitat. Hoary bats were confirmed present during 2020 nighttime acoustic surveys.

Yuma Myotis

Yuma myotis, a Special Animal tracked by CDFW, is a small bat widely distributed throughout western North America. This species of bat is most commonly associated with manmade structures. Crevices are preferred roost areas including those found in cliffs, buildings and bridges, but they will also roost in trees (Bogan et al. 2005). Yuma myotis is most closely associated with water for foraging compared to any other bat species. There were no CNDDDB records for the Yuma myotis in the eight-quadrangle search, but it has been recorded at seven localities within San Luis Obispo County (Pierson et al. 2002). Oak woodlands on-site provide suitable roosting habitat and foraging aquatic resources occur in the vicinity of the project area. Yuma myotis were observed during 2020 nighttime acoustic surveys.

American Badger

American badger, a CDFW SSC with a widespread range across the state (Brehme et al. 2015; CDFW 2016), is a permanent but uncommon resident in all parts of California, except for forested regions of the

far northwestern corner, and is more abundant in dry, open areas of most shrub and forest habitats (CDFW 2021a). It requires friable soil to dig burrows for cover and breeding. The main food source for the species is fossorial rodents, mainly ground squirrels and pocket gophers (CDFW 2016). The breeding season for badgers is in summer and early fall, and females give birth to litters usually in March and April (CDFW 2016). The closest reported CNDDDB occurrence of American badger (CNDDDB #391) is located approximately 5.1 miles from the project area, where an adult badger was observed at a den in the Oceano Dunes State Vehicular Recreation Area. Eight badger dens were documented in the project area during the 2018 and 2020 surveys (see Figure 4.4-6). During the 2020 surveys, two wildlife cameras placed along game trails from April 15 to May 6, 2020, failed to record American badgers on either camera. Nevertheless, due to the presence of suitable habitat with friable soils, and observations of badger dens on-site, American badger presence is presumed confirmed.

Special-Status Animal Taxa with Potential Habitat Present but Not Observed

Monarch Butterfly

Monarch butterfly (*Danaus plexippus*) is a candidate species for protection under the FESA and listed as a CDFW Special Animal. It migrates in the fall to wintering locations along the coast of central and southern California and mainland Mexico. Monarch butterfly aggregates in eucalyptus, Monterey pine (*Pinus radiata*), Monterey cypress (*Cupressus macrocarpa*), and less commonly oak trees (CDFW 2021a). The Nipomo Mesa is largely under-surveyed for monarch butterfly aggregation sites because most of the land is privately owned. There are 21 CNDDDB occurrences of monarch butterfly aggregation sites in the eight-quadrangle search radius (CDFW 2021a). Two of the records (CNDDDB #320 and #399) list the entire Oceano quadrangle, where the Specific Plan Area is located, as an aggregation site because the records contain suppressed sensitive locational data; as of 2014, both aggregation sites are presumed extant. The next nearest aggregation site is a 1983 record (CNDDDB #129) of a eucalyptus grove, located 2.2 miles west of the project area, believed to be extirpated by development and gradual reduction of the grove since 1994. A line of eucalyptus trees south and outside of the project area contains marginal habitat for aggregating monarch butterfly (Althouse and Meade 2022a), but this site is not documented as an aggregation site.

Northern California Legless Lizard

Northern California legless lizard, a CDFW SSC, occurs from Contra Costa County to Santa Barbara County and includes the subspecies formerly treated as *A. pulchra nigra* and *A. pulchra pulchra*, an invalid designation (Pearse and Pogson 2000). It inhabits friable soils in a variety of habitats from coastal dunes to oak woodlands and chaparral. Adapted to subterranean life, the legless lizard thrives near native coastal shrubs that produce an abundance of leaf litter and have strong roots systems (Kuhnz et al. 2005). Areas of exotic vegetation and open grassland do not provide suitable habitat for the silvery legless lizard since these plant communities support smaller populations of insect prey and offer little protection from higher ground temperatures and soil desiccation (Jennings and Hayes 1994; Slobodchikoff and Doyen 1977). Ten CNDDDB records for northern California legless lizard were found in the eight-quadrangle search radius. The closest reported occurrence of northern California legless lizard (CNDDDB #183) is located approximately 0.9 mile northwest of the project area where two individuals were collected from the vicinity of Misty Glen Place at Willow Road in 1985 and 1986. Chaparral and coast live oak woodland habitats in the project area are very likely to support northern California legless lizard. No northern California legless lizards were encountered during 2020 focused surveys despite intensive raking effort, and none were detected as of July 21, 2020 (Althouse and Meade 2022a).

Sharp-Shinned Hawk

Sharp-shinned hawk (*Accipiter striatus*), a CDFW Watch List species (for nesting occurrences only), frequents open oak and riparian woodland habitats. It is a regular fall and winter migrant in San Luis Obispo County that seldom remains in the area through the nesting season. Sharp-shinned hawk prefers to nest in dense, closed canopy forests and is unlikely to nest on-site but may forage for passerines in habitats found on-site. The nearest reported occurrence of nesting sharp-shinned hawk (CNDDDB #9) is a 2003 record, approximately 2.4 miles southwest of the project area. No sharp-shinned hawks were not observed in the project area during surveys between 2017 and 2020 (Althouse and Meade 2022a).

Burrowing Owl

Burrowing owl (*Athene cunicularia*), a CDFW SCC, is a small, rare owl that occupies abandoned mammal holes in the ground, most notably those of the California ground squirrel (*Otospermophilus beecheyi*). In California, the burrowing owl is a year-round resident in the Carrizo Plain, Central Valley, Imperial Valley, and San Francisco Bay region. In the winter months, burrowing owl individuals from other western populations will augment the year-round Californian populations (Shuford and Gardali 2008). The breeding season is generally March through August. Suitable habitat types for the burrowing owl are dry, open annual or perennial grasslands and deserts with an abundance of burrows (CDFW 2020a, 2014). More specifically, the owl is found in coastal prairie, coastal scrub, great basin, Mojavean and Sonoran Desert scrub, and great basin, valley, and foothill grassland habitats (CDFW 2020a). The burrowing owl may also inhabit badger and fox dens and manmade holes, such as pipes and culverts. Rarely, it has been known to dig its own burrow in softer soil types (Coulombe 1971; Gervais et al. 2008 as cited in Althouse and Meade 2022a). Burrows with high horizontal visibility and low vegetation coverage are preferred, but burrows with dense vegetation with high perch sites will be used (Green and Anthony 1989). Orthoptera are the main food source for the owl, but it also consumes other insects, as well as amphibians, carrion, small mammals, reptiles, and birds (Gervais et al. 2008; York et al. 2002; CDFW 2016). The closest of the four reported occurrences of burrowing owl (CNDDDB #1803) is approximately 7.5 miles southwest of the project area. The 2009 observation was an adult burrowing owl occupying a ground squirrel burrow in an open field surrounded by commercial and agricultural development west of Santa Maria. Due to presence of ground squirrel burrows and grazed perennial grassland in the project area, the site could support burrowing owls. Burrowing owls were not observed in the project area.

White-Tailed Kite

White-tailed kite (*Elanus leucurus*), a CDFW Fully Protected species, occurs throughout California. It is known to forage and nest in certain areas of California in fluctuating numbers (Lehman 2018; CDFW 2016). White-tailed kite nests primarily in evergreen trees, especially coast live oaks, near meadows, marshes, farmland or grasslands where they forage on small animals, especially voles (*Microtus californicus*) (Dunk 1995). Communal nocturnal roosts sites, which may shift in location, are often used from early fall to early winter. The closest reported occurrence of nesting white-tailed kite (CNDDDB #169) is approximately 15.2 miles northeast of the project area. The 2017 record is a nesting pair in an oak tree, which is in a riparian open space corridor located in a residential development that is also adjacent to vineyards and pastureland. One white-tailed kite was observed on the property during a site survey on August 29, 2019 (Althouse and Meade 2022a).

Lawrence's Goldfinch

Lawrence's goldfinch (*Spinus lawrencei*), a CDFW Special Animal tracked by the CNDDDB, nests in oak habitats in the mountain areas of northern and eastern San Luis Obispo County and elsewhere in California. Flocks of Lawrence's goldfinch tend to be highly mobile, moving to seasonal food sources.

Marginally suitable nesting habitat is present in the oak woodland habitat on-site. The closest verified occurrence (i.e., with a photo) in eBird is from the Cypress Ridge Golf Course Pavilion approximately 4 miles northwest of the project area (eBird 2022). There is an unverified eBird record immediately south of the project area off Cory Way (eBird 2022). The eBird range distribution map shows the species’ range in lower densities in coastal lowland areas. There are CNDDDB records for this species, but not within the eight-quadrangle search.

Western Red Bat

Western red bat, a CDFW SSC, roosting habitat includes forests and woodlands from lowlands up through mixed conifer forests of mountains, and foraging habitat includes grasslands, shrublands, open woodlands and forests, and croplands, but not deserts (CDFW 2021a). Western red bat in California is strongly associated with riparian habitats, particularly mature stands of cottonwood/sycamore in the Central Valley and lower reaches of the large rivers that drain the Sierra Nevada (Pierson et al. 2006). There were no CNDDDB records for western red bat in the eight-quadrangle search, which is likely due to their nocturnal activity patterns and requirement for focused surveys, rather than absence. No western red bats were detected during 2020 nighttime acoustic surveys.

4.4.1.2 North Frontage Road Extension Parcel

The North Frontage Road Extension Parcel (APN 091-325-022) is an undeveloped parcel approximately 4.91 acres in size at the southeast corner of the Dana Reserve. This parcel is not owned by the project applicant (and owner of the Dana Reserve), and it is not a part of the proposed DRSP area. While the parcel itself is not part of the Specific Plan, there is an existing 40-foot-wide County ROW easement extending north–south fronting through the parcel within which a roadway extension will be constructed. The North Frontage Road Extension Parcel is surrounded by four single-family residential lots to the west, Sandydale Drive and the North Frontage Road northern terminus to the south, US 101 to the east, and undeveloped Dana Reserve to the north. A reconnaissance-level biological survey was conducted by Althouse and Meade biologists on January 20, 2022 (Althouse and Meade 2022b).

4.4.1.2.1 SOILS

The Soil Survey of San Luis Obispo County, California, Coastal Part (USDA 1984) identifies the soil type on the North Frontage Road connection parcel to be the same as the Specific Plan Area: Oceano sand, 0 to 9 percent slopes (see Figure 4.4-1).

4.4.1.2.2 HABITAT TYPES

The North Frontage Road Extension Parcel is comprised of two habitat types: coyote brush scrub and non-native perennial grassland (see Figure 4.4-2). Each habitat accounts for approximately half the parcel, with coyote brush scrub occupying 55% and non-native perennial grassland occupying 45%. Neither is considered a sensitive community by CDFW (2022).

Table 4.4-5. Habitat Types on the North Frontage Road Extension Parcel

Habitat Type	Global/State Rank	Location	Area (Acres.)
Mediterranean California naturalized annual and perennial grassland group	N/A	North Frontage Road Extension Parcel	2.23
Coyote Brush Scrub (<i>Baccharis pilularis</i> shrubland alliance)	N/A	North Frontage Road Extension Parcel	2.68
Total			4.91

Coyote Brush Scrub (*Baccharis pilularis* shrubland alliance)

Coyote brush scrub occupies the eastern half of the project area where shrub or tree species are conspicuously present (see Figure 4.4-2). Coyote brush accounts for over 70% of the relative shrub canopy, with bush lupine and deer weed appearing in low numbers. Because of the strong presence of coyote brush, the area was mapped as *Baccharis pilularis* shrubland alliance, as described in *A Manual of California Vegetation, 2nd Edition* (Sawyer et al. 2009; CNPS 2021a). In addition, isolated individuals of mature eucalyptus trees are found throughout this habitat type. The understory is dominated by non-native grasses and forbs, such as ripgut brome and filaree species (*Erodium* spp.). Telegraph weed, a native forb that co-occurs with other weedy species, is also common.

Several individual arroyo willows (*Salix lasiolepis*) occur within the coyote brush scrub. Willow trees primarily occur as isolated trees, but a semi-continuous canopy forms along the eastern edge of the parcel. When considered in the context of the habitat, willow cover did not exceed 5% absolute cover, thus not meeting the minimum relative or absolute cover criteria to be mapped as a separate *Salix lasiolepis* Shrubland Alliance area (CNPS 2021a). Willows are phreatophytes, meaning they have a deep root system that taps into the underground water table (Robinson 1958). It is likely the willows on-site are supported by occasional moist conditions associated with a swale and a nearby storm culvert. No other wetland indicator species were present in the understory or vicinity of the willow canopy.

Mediterranean California naturalized annual and perennial grassland group

Non-native perennial grassland is found throughout the western half of the project area and is characterized by a near monoculture of veldt grass. Over 90% of the vegetative cover within this habitat type is veldt grass, with only the occasional coyote brush or bush lupine occurring within the shrub layer. A row of eucalyptus trees lines the boundary between the project area and Dana Reserve. Telegraph weed is the only other prominent herbaceous species within this habitat type. Non-native perennial grassland is considered a semi-natural stand and has not been formally described in *A Manual of California Vegetation, 2nd Edition* (Sawyer et al. 2009; CNPS 2021a). Therefore, this habitat type is mapped as Mediterranean California naturalized annual and perennial grassland group according to the U.S. National Vegetation Classification (USNVC; USNVC 2021). No special-status plants or animals were detected in non-native perennial grassland during the January 2022 botanical survey (Althouse and Meade 2022b).

4.4.1.2.3 POTENTIAL WETLANDS AND JURISDICTIONAL WATERS

No features from the National Wetlands Inventory (NWI) (USFWS 2022a) or blue-line streams from the USGS National Hydrography Dataset (NHD) (USGS 2022) occur across the Specific Plan Area. Similarly, there is no evidence from aerial imagery of potentially jurisdictional wetlands or waters on the North Frontage Road Extension Parcel. The land appears to have last been heavily disturbed in 2005. Subsequently, a small patch of willows has developed in a swale next to the access road. Evidence of wetlands was not observed in the soil or associated understory vegetation (Althouse and Meade 2022b). The site's undisturbed soil contained permeable, single-grained sand with many fine roots dissipating at depth, and no hydric soil indicators were observed throughout the parcel. However, the current access road endured deep compaction from past disturbance and potentially led to occasional ponding and eventual runoff to the adjacent US 101 stormwater swale and culvert (Althouse and Meade 2022b). No jurisdictional wetlands or waters of the United States or waters of the state were mapped on the parcel.

4.4.1.2.4 SENSITIVE NATURAL COMMUNITIES

No sensitive natural communities occur on the North Frontage Road Extension Parcel.

4.4.1.2.5 SPECIAL-STATUS PLANT SPECIES

Due to the adjacency of the North Frontage Road Extension Parcel to the Specific Plan Area, maritime climate and sandy soil conditions, the parcel potentially provides suitable habitat to the same special-status plant species that were determined to occur in the Specific Plan Area. Particular attention during the January 20, 2022, site visit was given to identify special-status species that were detected on the adjacent Dana Reserve throughout the 2017 to 2020 surveys. Those species included eight special-status plant taxa: sand mesa manzanita, Nipomo Mesa ceanothus, California spineflower, sand buck brush, sand almond, Rein's orchid, Pismo clarkia, and mesa horkelia. None of these species were detected within this parcel. Spring botanical surveys are needed to confirm the absence of two annual species: California spineflower and Pismo clarkia. The dense veldt grass and lack of coast live oak trees make it highly unlikely that Pismo clarkia will be present on site. California spineflower was not detected as standing dead from previous years but could occur in sandy disturbed areas.

4.4.1.2.6 SPECIAL-STATUS WILDLIFE SPECIES

Due to the adjacency of the North Frontage Road Extension Parcel to the Specific Plan Area, the CNDDDB search conducted for the Specific Plan Area applies to the extension parcel. The eucalyptus trees provide potential nesting habitat for sensitive raptors species and roosting monarch butterflies. The chaparral vegetation provides suitable nesting habitat for birds covered under the federal Migratory Bird Treaty Act (MBTA). Given the friable soils on-site, the parcel could potentially provide suitable habitat for northern California legless lizards and American badgers. Given the adjacency of the property, and similarity of habitat conditions, it is assumed that the species observed on the Specific Plan Area could potentially occur on the extension parcel.

Surveys for signs of nesting birds or badger dens were conducted on January 20, 2022. No indicators of special-status animals were present within the project area. Please refer to Sections 4.4.1.1.5, *Sensitive Natural Communities*, and 4.4.1.1.6, *Special-Status Plant Species*, for a full discussion of potential special-status species.

4.4.1.3 Off-Site Improvements

Buildout of the Specific Plan Area would require a number of off-site transportation-, water-, and wastewater-related improvements. These off-site areas are described in further detail in Chapter 2, *Project Description* (see Figures 2-4 through 2-7). New structures, such as the additional water storage tanks, have undergone separate environmental review. The remaining infrastructure improvements involve either the extension or upsizing of water or sewer pipelines.

The primary water system improvement starts with an extension (new pipe) that runs from Sandydale Drive, under US 101, to North Oakglen Avenue. From there, the extension will run along North Oakglen Avenue to where it intersects with East Tefft Street. There it will connect to an existing water line that runs east along East Tefft Street to the Foothill water tank site. This existing water line, running along East Tefft Street, will be upsized from a 10-inch to a 16-inch DIP (see Figure 2-5). To the extent possible, improvements will occur within existing paved roadways.

The primary wastewater system improvements include either an extension or upsizing of the sewer main pipe within North and South Frontage Roads between the Specific Plan Area and the existing NCSD Southland WWTF.

4.4.1.3.1 SOILS

The Soil Survey of San Luis Obispo County, California, Coastal Part (USDA 1984) identifies the soil type along North and South Frontage Roads (i.e., the main wastewater system improvement area) to be the same as the Specific Plan Area: Oceano sand, 0 to 9 percent slopes.

The USDA Soil Survey (USDA 1984) identifies six soil types within the water system improvement area. Oceano sand, 0 to 9 percent slopes occurs along North Oakglen Avenue and East Tefft Street in the areas west of Nipomo Creek. Nipomo Creek is mapped as Oceano sand, 9 to 30 percent slopes. The remainder of the soil types along East Tefft Street include Marimel silty clay loam, drained; Cropley clay, 2 to 9 percent slopes; Santa Lucia very shaly clay loam, 9 to 15 percent slopes; Diablo and Cibo clays, 9 to 15 percent slopes; and Diablo clay, 5 to 9 percent slopes (USDA 1984).

4.4.1.3.2 HABITAT TYPES

The wastewater system improvement area primarily consists of the developed areas along North and South Frontage Roads. Roadside vegetation consists of ruderal vegetation (predominantly along the eastern side of the road adjacent to US 101) and/or landscaped vegetation (predominantly along the western side of the road adjacent to commercial or residential structures).

The water system improvement areas primarily consist of paved asphalt along North Oakglen Avenue and East Tefft Street. Roadside vegetation along North Oakglen Avenue predominantly consists of ruderal vegetation, with a grove of eucalyptus trees, oak trees, and landscaped vegetation adjacent to the residential areas. North Oakglen Avenue runs parallel to the riparian corridor of Nipomo Creek. There is one area where the riparian vegetation of Nipomo Creek abuts North Oakglen Road to the east (Figure 4.4-7). Roadside vegetation along East Tefft Street consists of ruderal vegetation in the agricultural areas, landscaped vegetation along the residential areas, and riparian vegetation where it crosses over Nipomo Creek and its tributaries.

4.4.1.3.3 POTENTIAL WETLANDS AND JURISDICTIONAL WATERS

The wastewater system improvement area does not traverse any USGS NHD blue-line streams, or any wetland habitat mapped in the NWI (USGS 2022 and USFWS 2022a). There are four stream crossings along the water system improvement area: Nipomo Creek and a tributary of Nipomo Creek, that crosses under East Tefft Street three times (see Figure 4.4-7; USGS 2022). In addition, North Oakglen Avenue parallels Nipomo Creek. Nipomo Creek and its corresponding riparian corridor are mapped as a freshwater forested/shrub wetland (USFWS 2022a). In some areas, the edge of the riparian canopy appears to abut the edge of North Oakglen Avenue on the eastern side (see Figure 4.4-7). A wetland delineation should be conducted along this area to determine the extent of CDFW and Regional Water Quality Control Board (RWQCB) jurisdictional areas to avoid potential impacts.

4.4.1.3.4 SENSITIVE NATURAL COMMUNITIES

Surveys were not conducted for the off-site water and wastewater improvement areas. However, given the disturbed nature of habitat along the wastewater improvement alignment, it is inferred that no sensitive natural communities occur within this area.

The waterline improvement area runs parallel to the riparian habitat of Nipomo Creek and crosses over Nipomo Creek and a tributary to the creek three times. Both Nipomo Creek and the upper creek crossing are mapped as freshwater forested/shrub wetland. While not technically considered sensitive natural communities, based on the presence of mapped riparian habitat, the presence of sensitive natural communities could not be ruled out without additional surveys.

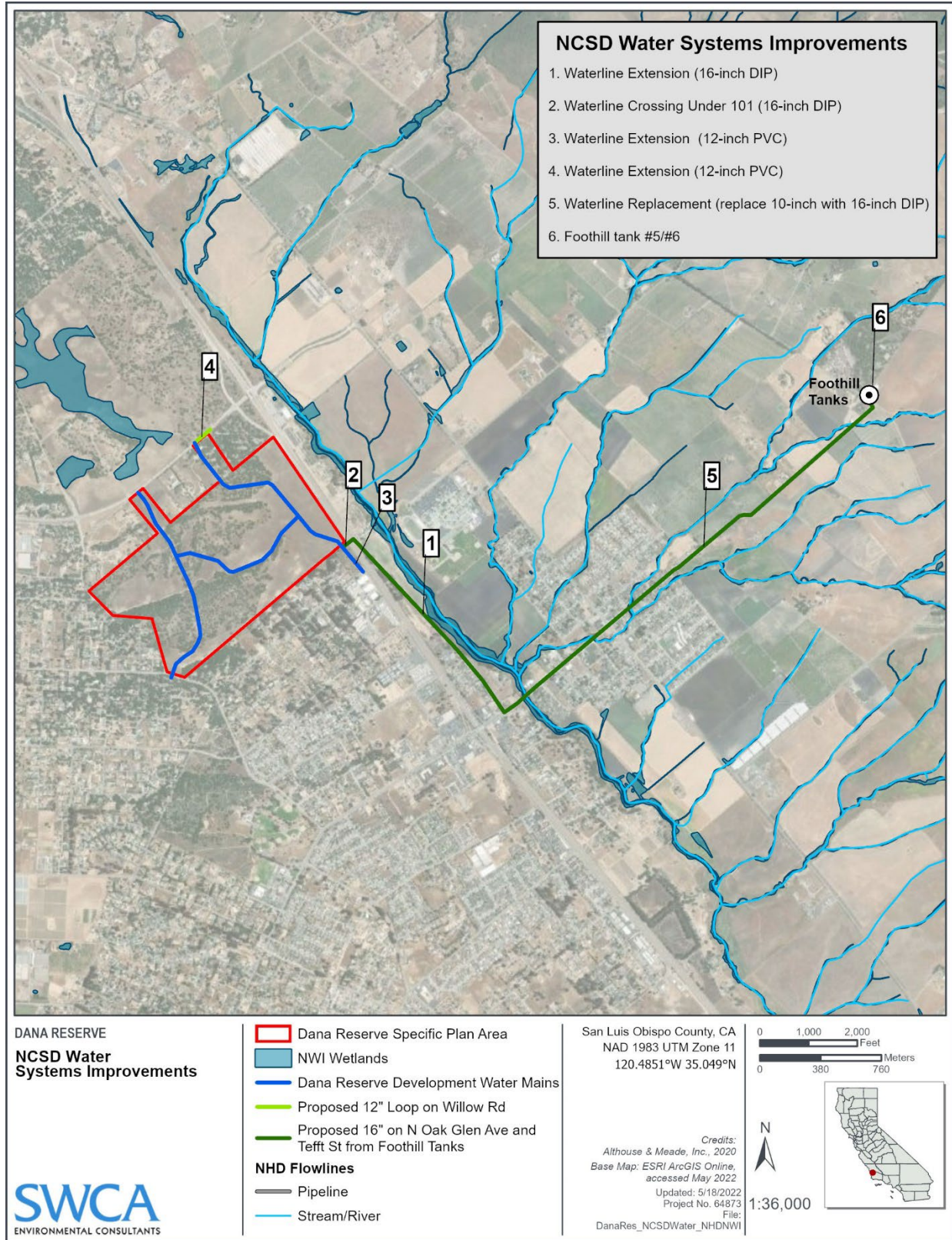


Figure 4.4-7. NCSW water system improvements and NHD and NWI features.

4.4.1.3.5 SPECIAL-STATUS PLANT SPECIES

Given the disturbed nature of the non-paved areas along North and South Frontage Roads, it is assumed that the wastewater system improvement area does not contain suitable habitat for special-status plant species. Similarly, based on the disturbed nature of the roadside vegetation along East Tefft Street, coupled with the lack of sandy soils, which is a key micro-habitat component for several of the special-status plant species in the area, it is assumed that the water system improvement area does not contain suitable habitat for special-status plant species. However, no formal surveys were conducted for either area.

4.4.1.3.6 SPECIAL-STATUS WILDLIFE SPECIES

The analysis of special-status wildlife species for the water and wastewater improvements areas is based on the CNDDDB query conducted for the Specific Plan Area, a separate search of the USFWS Information for Planning and Consultation (IPaC) online screening tool (USFWS 2022b) for the waterline improvement area, and the CEQA analyses conducted for the Foothill Water Tank Project (SWCA 2022a) and the Blacklake Sewer System Consolidation Project (SWCA 2022b).

In general, most of the proposed wastewater extension areas lack significant biological resources, particularly in the highly urbanized areas. However, even the ruderal and landscaped vegetation can provide suitable habitat for nesting birds. In addition, several larger trees, including a few planted coast live oak trees, pine trees, and eucalyptus trees, occur along the alignment that could provide potential habitat for nesting raptors.

The alignment of the proposed waterline extension area runs through more rural, agricultural, and natural areas. It parallels Nipomo Creek along North Oakglen Avenue, which is lined with coast live oak trees and large eucalyptus trees. The eucalyptus trees could potentially provide suitable habitat for monarch butterflies. The riparian corridor along Nipomo Creek provides excellent nesting bird habitat, including nesting habitat for special-status raptors, such as sharp-shinned hawk, Cooper's hawk, and white-tailed kite.

The Nipomo Creek riparian corridor could also potentially provide habitat for southwestern willow flycatcher (*Empidonax traillii extimus*) and least Bell's vireo (*Vireo bellii pusillus*). The width of the corridor and proximity to urban activities may decrease the overall value of the site to provide nesting habitat. Southwestern willow flycatcher and Least Bell's vireo are both federally and state endangered species that require riparian areas to breed.

Least Bell's vireo typically inhabits structurally diverse woodlands along watercourses, including cottonwood-willow woodlands/forests, oak woodlands, and mule fat scrub. Historically, the species was abundant in lowland riparian habitat, ranging from coastal southern California through the Sacramento and San Joaquin Valleys, but now populations are mostly confined to eight counties south of Santa Barbara, with the majority of birds occurring in San Diego County. The nearest known occurrence of least Bell's vireo is from Jim May Park in Santa Maria on July 28, 2019, approximately 13.35 miles south of the NCSO off-site improvement areas (eBird 2021). The last confirmed breeding pair of this species in San Luis Obispo County was along the Salinas River near Bradley in 1983 (Roberson 2002).

The southwestern willow flycatcher requires dense riparian habitats (cottonwood/willow and tamarisk vegetation) for nesting. Whether the work area will extend into the riparian corridor is still to be determined. There are currently no known occurrences of southwestern flycatcher in San Luis Obispo County. The nearest occurrence is from within the Santa Ynez River (eBird 2021). Nesting pairs of both southwestern willow flycatcher and least Bell's vireo are considered unlikely but cannot be ruled out due to the presence of suitable riparian habitat.

The three special-status species tied to aquatic habitat that have the potential to occur in Nipomo Creek and its tributaries are California red-legged frog (*Rana draytonii*), western pond turtle (*Emys marmorata*), and two-striped gartersnake (*Thamnophis hammondi*). California red-legged frog is a federally threatened species and CDFW SSC (USFWS 2002; CDFW 2022). There are no CNDDDB occurrences within the Nipomo Creek watershed; however, the majority of the area is private property and has likely not been surveyed. The closest known CNDDDB occurrence for California red-legged frog (CNDDDB #147) is from Los Berros Creek approximately 3.6 miles west of the NCSF Foothill Water Tank property (CDFW 2021a). There is also an occurrence (CNDDDB #527) located 4.5 miles south of the NCSF Foothill Water Tank property in the Upper Santa Maria River Watershed, which is labeled as being in the Nipomo Creek watershed in the CNDDDB record. Whether or not Nipomo Creek at the crossing of East Tefft Street provides suitable breeding habitat for red-legged frog has not been determined, but it and its tributaries do provide suitable aquatic dispersal habitat for California red-legged frog and there are likely undocumented populations in farm ponds throughout the watershed. Nevertheless, the potential for California red-legged frog to occur in the project area is low.

Western pond turtle is a CDFW SSC (CDFW 2022). The closest CNDDDB occurrence (CNDDDB #1174) is approximately 6.5 miles west of Nipomo Creek, with considerable barriers to dispersal (e.g., State Route 1 and US 101), however, the CNDDDB underrepresents the distribution of this species, and they could potentially occur in Nipomo Creek, especially if there are deeper pool habitat areas. The potential for western pond turtle to occur in the project area is low.

Two-striped gartersnake, a CDFW SSC, is among the most aquatic of the gartersnakes and generally found in or near water sources in oak woodland, willow, coastal sage scrub, and chaparral, often in rocky areas. The NCSF off-site improvement areas are within the range of the species, but there are no CNDDDB records nearby. The closest records (CNDDDB #100 and #103) are 10 miles west within the Guadalupe-Nipomo Dunes preserve and 16 miles east at the confluence of Pine Canyon Creek and the Cuyama River. Given the proximity of the Specific Plan Area to urban areas, the potential for two-striped gartersnake to occur in the project area is low.

4.4.2 Regulatory Setting

4.4.2.1 Federal

4.4.2.1.1 ENDANGERED SPECIES ACT

The FESA of 1973 provides the legal framework for the listing and protection of species (and their habitats) identified as being endangered or threatened with extinction. “Critical Habitat” is a term within the FESA designed to guide actions by federal agencies and is defined as “an area occupied by a species listed as threatened or endangered within which are found physical or geographical features essential to the conservation of the species, or an area not currently occupied by the species which is itself essential to the conservation of the species.” Actions that jeopardize endangered or threatened species and/or critical habitat are considered a “take” under FESA. Take under federal definition means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.

Projects that would result in take of any federally listed endangered or threatened species, or critical habitats, are required to consult with the USFWS through either Section 7 (interagency consultation with a federal nexus) or Section 10 (Habitat Conservation Plan [HCP]) of the FESA, depending on the involvement by the federal government in permitting and/or funding of the project. The FESA does not protect plants unless there is a federal nexus. Plants may not be removed from lands under federal jurisdiction, and activities with a federal nexus have the consultation requirement described above (16 United States Code [USC] 1536 – Interagency Cooperation).

4.4.2.1.2 MIGRATORY BIRD TREATY ACT

All migratory, non-game bird species that are native to the United States or its territories are protected under the federal MBTA of 1918 (50 CFR Section 10.13), as amended under the Migratory Bird Treaty Reform Act of 2004. The MBTA makes it illegal to purposefully take (pursue, hunt, shoot, wound, kill, trap, capture, or collect) any migratory bird, or the parts, nests, or eggs of such a bird, except under the terms of a valid federal permit. Migratory non-game native bird species are protected by international treaty under the federal MBTA.

4.4.2.1.3 CLEAN WATER ACT

The federal Clean Water Act (CWA) of 1972 provides guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters. Section 401 requires that an applicant for a federal license or permit that allows activities resulting in a discharge to waters of the United States, must obtain a state certification that the discharge complies with other provisions of CWA. The RWQCBs administer the certification program in California. Section 404 establishes U.S. Army Corps of Engineers (USACE) jurisdiction over fill materials in essentially all waterbodies, including wetlands. All federal agencies are to avoid impacts to wetlands whenever there is a practicable alternative. Section 404 established a permit program administered by the USACE regulating the discharge of dredged or fill material into waters of the United States, including wetlands. Section 404 guidelines allow the discharge of dredged or fill material into the aquatic system only if there is no practicable alternative that would have less adverse impacts.

4.4.2.2 State

4.4.2.2.1 CALIFORNIA ENDANGERED SPECIES ACT

The CESA of 1970, like the FESA, contains a process for listing of species and regulating potential impacts to listed species. State threatened and endangered species include both plants and wildlife, but do not include invertebrates. The designation "rare species" applies only to California native plants. State threatened and endangered plant species are regulated largely under the Native Plant Preservation Act (NPPA) of 1977 in conjunction with the CESA. State threatened and endangered animal species are legally protected against take. The CESA authorizes the CDFW to enter into a memorandum of agreement for take of listed species to issue an Incidental Take Permit (ITP) for a state-listed threatened and endangered species only if specific criteria are met. Section 2080 of the CESA prohibits the take of species listed as threatened or endangered pursuant to the act. Section 2081 allows the CDFW to authorize take prohibited under Section 2080 provided that: (1) the taking is incidental to an otherwise lawful activity; (2) the taking will be minimized and fully mitigated; (3) the applicant ensures adequate funding for minimization and mitigation; and (4) the authorization will not jeopardize the continued existence of the listed species.

4.4.2.2.2 CALIFORNIA FISH AND GAME CODE

Section 3511 of the CFGC includes provisions to protect Fully Protected species, such as: (1) prohibiting take or possession "at any time" of the species listed in the statute, with few exceptions; (2) stating that "no provision of this code or any other law shall be construed to authorize the issuance of permits or license" to "take" the species; and (3) stating that no previously issued permits or licenses for take of the species "shall have any force or effect" for authorizing take or possession. The CDFW is unable to authorize incidental take of Fully Protected species when activities are proposed in areas inhabited by those species. Sections 3503 and 3503.5 of the CFGC state that it is unlawful to take, possess, or destroy the nest or eggs of any bird, with occasional exceptions. In addition, Section 3513 states that it is unlawful to take or possess any migratory bird as designated in the MBTA or any part of such migratory birds

except as provided by rules and regulations under provisions of the MBTA. The CDFW also manages the NPPA (Fish and Game Code Section 1900, et seq.), which was enacted to identify, designate, and protect rare plants. In accordance with CDFW guidelines, CNPS CRPR 1B list plants are considered “rare” under the CESA and are evaluated in CEQA documents.

Fully Protected species may not be taken or possessed without a permit from the California Fish and Game Commission and/or CDFW. Information on these species can be found within Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) of the CFGC.

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

4.4.2.2.3 CALIFORNIA SENATE BILL 1334: OAK WOODLANDS CONSERVATION

Under SB 1334, county governments are responsible for conserving oak woodlands within their jurisdiction. During the CEQA review process, SB 1334 requires county governments to determine if a proposed project would result in the conversion of oak woodland. If the County determines that the proposed project would result in the conversion of oak woodland, the County is mandated to require implementation of specified mitigation as outlined in an oak woodland management plan. In San Luis Obispo County, oak woodlands are defined as areas containing greater than 10% oak canopy cover. The County oak management plan defines conversion as cutting or removing 10% or more of the oak woodland canopy or removing more than 10 oak trees. The proposed project would result in the conversion of oak woodland; therefore, it is subject to mitigation as mandated by SB 1334 and the County oak management plan. SB 1334 only allows for 50% of the mitigation through replanting and the remainder of the mitigation must be through conservation.

4.4.2.2.4 PORTER-COLOGNE WATER QUALITY CONTROL ACT

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

If there is no CWA Section 404/401 nexus (such as in instances where waters of the state that are not considered waters of the United States could be impacted), compliance with the Porter-Cologne Act for impacts to waters of the state could be regulated by the RWQCB through the Waste Discharge Requirement (WDR) program, which could require obtaining a WDR permit instead of CWA Section 404/401 permits. If the project does not qualify for an existing General Order WDR, in many situations,

the new dredge/fill procedures would be followed to obtain an Individual WDR, which can be an extensive process.

4.4.2.3 Local

4.4.2.3.1 COUNTY OF SAN LUIS OBISPO GENERAL PLAN

Conservation and Open Space Element

The COSE focuses on conservation and protection of the county's unique natural resources while balancing the needs of the natural and build environment. The Biological Resources chapter of the COSE includes the goals and policies intended to sustain healthy ecosystems, preserve biodiversity, restore degraded habitats, and protect diverse landscapes.

4.4.2.3.2 COUNTY OF SAN LUIS OBISPO INLAND LAND USE ORDINANCE (TITLE 22)

Oak Woodland Ordinance

Chapter 22.58 of the LUO establishes the Oak Woodland Ordinance, which applies to inland portions of the unincorporated areas of San Luis Obispo County. Under this ordinance a Minor Use Permit is required to remove between 1 and 3 acres of oak woodland habitat over a 10-year period, and a Conditional Use Permit (CUP) is required to remove more than 3 acres over a 10-year period. This ordinance does not apply to the removal of individual trees unless they are heritage oaks which are defined in LUO Section 22.58.030 as oak trees with a diameter at breast height (DBH) of at least 48 inches and that are separated from all stands and woodlands by at least 500 feet. This ordinance does not apply to the establishment of residential land uses that otherwise require a ministerial (non-discretionary) land use permit. The ordinance notes:

Residential development may be subject to discretionary approval as required by other standards of this Code (Title 22, Land Use Ordinance) or through an application for a land division pursuant to Title 21, Real Property Division Ordinance, of the County Code. Discretionary land use permits, and land division applications are subject to the California Environmental Quality Act (CEQA), where potential impacts associated with tree removal may be evaluated and mitigated.

The ordinance further provides that, where a CUP is required because more than 3 acres of oak woodland would be removed over a 10-year period, an "oak woodland management plan" shall be developed and approved as part of the CUP. The ordinance states:

"Oak Woodland Management Plan" means a plan prepared that provides for the long-term conservation and maintenance of the oak woodland, including but not limited to programs for the maintenance, regeneration and enhancement of the woodland, and the associated woodland habitat and monitoring programs to ensure the objectives of the plan are continuing to be met.

In the absence of a CUP and Oak Woodland Management Plan, the ordinance states that clear-cutting of an Oak Woodland shall not exceed 5% of a site's total Oak Woodland Canopy. A CUP allows for clear-cutting with mitigation and an Oak Woodland Management Plan. LUO Section 22.62.060 - Conditional Use Permits states:

Action on a Conditional Use Permit is discretionary and may include: approval based on the standards of this Title; approval with conditions; or disapproval, based on conflict with the provisions of this code, or information in the staff report or public hearing testimony.

Section 22.98.072(H)(8)

The Land Use Category Standards for the South County Sub-area, Residential Rural (RR), Dana Ranch [aka Dana Reserve] are outlined in LUO Section 22.98.072 (H)(8). This section states:

8. Cañada Ranch property - Specific Plan requirement. A Specific Plan shall be prepared for the Cañada Ranch property shown in Figure 98-40 under the guidance of the County upon the application and funding by the property owner(s) prior to the approval of land division applications, although a clustered land division proposed in compliance with the Residential Rural category, Section 22.22.140, and other applicable provisions of this Title, may be approved without Specific Plan preparation. The Specific Plan shall be prepared in compliance with Government Code Section 65450 to plan for the following:
 - a. Types of uses. The concept of a Specific Plan is for uses in the following priority for acreage, scale and intensity: This ordinance requires a Specific Plan that would include:
 - (1) Open space uses within the oak woodlands;
 - (2) Industrial park(s) that will generate "basic" employment for the Nipomo and south county area;
 - (3) Commercial service parks that do not conflict with downtown and community shopping commercial uses within Nipomo; (1) (2)
 - (4) Retail uses to serve the daily shopping needs of employees and residents of the site in compliance with purpose and character statements for neighborhood shopping areas in Framework for Planning - Inland Area;
 - (5) Commercial retail uses that are in compliance with purpose and character statements in Framework for Planning - Inland Area for highway-oriented retail;
 - (6) Residential areas to contain a mix of housing unit types, a portion of which should be affordable to average employee incomes on the site, timing to be concurrent with or following establishment and operation of nonresidential uses, the timing to be determined by a market feasibility study.
 - b. Oak habitat preservation. Designation of the existing oak forest habitat for open space preservation, where limited recreational and open space uses may be allowed.
 - c. Pedestrian-oriented site planning. Location of workplaces, shopping, services, civic buildings and residences in close proximity to each other to facilitate walking and alternative transportation to the private vehicle.
 - d. Architecture and landscaping. Guidelines for architecture and landscaping that respond to the rural character of the area.

- e. Resource, facility and services needs. Extent of necessary public, or private where applicable, needs including, but not limited to, safety, health, waste management and water supply.

4.4.2.3.3 NIPOMO COMMUNITY PARK MASTER PLAN FINAL PROGRAM EIR BR/MM-10(C), OAK TREE PROTECTION GUIDELINES

Nipomo Community Park Master Plan Final Program EIR BR/mm-10(c), Oak Tree Protection Guidelines (SWCA 2012), describes typical County guidelines to protect oak trees retained within 50 feet of impact areas:

1. A qualified arborist shall determine the critical root zone for each retained tree on a case-by-case basis, based upon tree species, age, and size. This area is generally defined as 1.0 to 1.5 times the distance from the tree base of the average measurement taken from the tree base to the edge of the canopy/dripline. At a minimum, the critical root zone shall be the distance from the trunk to the drip line of the tree.
2. All trees to remain within 50 feet of construction or grading activities shall be marked for protection (e.g., with flagging) and their root zone fenced prior to any grading. Grading, utility trenching, compaction of soil, or placement of fill shall be avoided within these fenced areas. If grading in the root zone cannot be avoided, retaining walls shall be constructed to minimize cut and fill impacts. Care shall be taken to avoid surface roots within the top 18 inches of soil. If any roots must be removed or exposed, they shall be cleanly cut and not left exposed above the ground surface. The project arborist shall approve any work within the root protection zone.
3. Unless previously approved by the County, the following activities are not allowed within the root zone of existing or newly planted oak trees: year-round irrigation (no summer watering, unless “establishing” new tree or native compatible plants for up to seven years); grading (includes cutting and filling of material); compaction (e.g., regular use of vehicles); placement of impermeable surfaces (e.g., pavement); disturbance of soil that impacts roots (e.g., tilling).
4. The County shall minimize trimming of oak trees to remain on-site. Removal of larger lower branches should be minimized to: 1) avoid making tree top heavy and more susceptible to “blow-overs,” 2) reduce having larger limb cuts that take longer to heal and are much more susceptible to disease and infestation, 3) retain wildlife habitat values associated with the lower branches, 4) retain shade to keep summer temperatures cooler (retains higher soil moisture, greater passive solar potential, provides better conditions for oak seedling volunteers), and 5) retain the natural shape of the tree. The amount of trimming (roots or canopy) done in any one season shall be limited as much as possible to reduce tree stress/shock (10% or less is best, 25% maximum). If trimming is necessary, the applicant shall use a certified arborist when removing limbs. Unless a hazardous or unsafe situation exists, major trimming shall be done only during the summer months.

4.4.2.4 Applicable State, Regional, and Local Land Use Plans and Policies Relevant to Biological Resources

Table 4.4-6 lists applicable state, regional, and local land use policies and regulations pertaining to biological resources that were adopted for the purpose of avoiding or mitigating an environmental effect and that are relevant to the proposed project. A general overview of these policy documents is presented

in Section 4.4.2, *Regulatory Setting*, and Chapter 3, *Environmental Setting*. Also included in Table 4.4-6 is an analysis of project consistency with identified policies and regulations. Where the analysis concludes the proposed project would potentially conflict with the applicable policy or regulation, the reader is referred to Section 4.4.5, *Project-Specific Impacts and Mitigation Measures*, and Section 4.11, *Land Use and Planning*, for additional discussion.

Table 4.4-6. Preliminary Policy Consistency Evaluation

Goals, Policies, Plans, Programs and Standards	Intent of the Policy in Relation to Avoiding or Mitigating Significant Environmental Impacts	Preliminary Consistency Determination
County of San Luis Obispo General Plan		
General Plan Safety Element		
<p>Policy S-30 Hazardous Trees. Reduce the danger to people and property from trees that are weakened and susceptible to falling or limb loss during storms.</p>	<p>The intent of this policy is to reduce hazards associated with hazardous trees.</p>	<p>Potentially Consistent. The project would result in the removal of 3,943 oak trees within the Specific Plan Area and would have the potential to impact additional trees to remain on-site. Mitigation Measure BIO/mm-17.1 has been identified to require preparation of an on-site tree protection plan for trees to be retained. This measure includes a post-construction tree inspection to be conducted by the project arborist prior to the occupancy of each project phase and identifies protection measures for newly planted/mitigation oak trees on-site. Implementation of this measure would protect the health of trees on-site and minimize future hazardous tree conditions. If hazardous tree conditions were to develop on-site, the project Master Homeowner's Association (HOA) and/or the affected neighborhood HOA would be responsible for securing a hazardous tree removal permit and addressing the issue. Therefore, with implementation of Mitigation Measure BIO/mm-17.1, the project would be potentially consistent with this policy.</p>
Conservation and Open Space Element		
<p>Goal BR 1 Native habitat and biodiversity will be protected, restored, and enhanced.</p>	<p>The intent of this policy is to protect, restore, and enhance native habitat and biodiversity in the County.</p>	<p>Potentially Inconsistent. The project would result in significant impacts to special-status plant species and sensitive natural communities that would constitute a net loss of species and habitat diversity in the county. The applicant would be required to mitigate for the loss of California spineflower, sand buck brush, and sand almond at a 1:1 mitigation ratio in BIO/mm-4.1. However, it is reasonable to assume that a portion of replanted plants would not successfully establish, and therefore would constitute a net loss for these species.</p> <p>Of the 3,943 oak trees to be removed, the mitigation only requires the applicant to plant replacement trees for 194 of the trees being removed. At this level, this is a significant net loss of oak trees and acreage of oak woodlands in the County.</p>

Goals, Policies, Plans, Programs and Standards	Intent of the Policy in Relation to Avoiding or Mitigating Significant Environmental Impacts	Preliminary Consistency Determination
<p>Policy BR 1.1 Protect sensitive biological resources. Protect sensitive biological resources such as, wetlands, migratory species of the Pacific flyway, and wildlife movement corridors through:</p> <ol style="list-style-type: none"> 1. environmental review of proposed development applications, including consideration of cumulative impacts; 2. participation in comprehensive habitat management programs with other local and resource agencies; and, 3. acquisition and management of open space lands that provide for permanent protection of important natural habitats. 	<p>The intent of this policy is to protect wetlands, migratory species of the Pacific flyway, and wildlife movement corridors.</p>	<p>Potentially Consistent. The proposed development will not disrupt known major wildlife movement corridors. BIO/mm-16.1 through BIO/mm-16.3 would prevent impacts to wetlands and other aquatic habitat from the installation of off-site water improvements. There are no other wetland habitats on the Specific Plan Area.</p>
<p>Policy BR 1.2 Limit development impacts. Regulate and minimize proposed development in areas that contain essential habitat for special-status species, sensitive natural communities, wetlands, coastal and riparian habitats, and wildlife habitat and movement corridors as necessary to ensure the continued health and survival of these species and protection of sensitive areas.</p>	<p>The intent of this policy is to protect essential habitat for special-status species, sensitive natural communities, wetlands, coastal and riparian habitats, and wildlife habitat and movement corridors.</p>	<p>Potentially Inconsistent. The proposed development will require mitigation for impacts to special-status species through the preservation and restoration of off-site occupied habitat areas (BIO/mm-2.1 through BIO/mm-4.2 and BIO/mm-15.1). However, suitable off-site habitat areas may not exist; therefore, the impact could potentially prevent the continued health and survival of species such as Nipomo Mesa ceanothus or mesa horkelia. In addition, the 1:1 mitigation ratio in BIO/mm-3.1 would constitute a net loss for the species. The proposed development will not disrupt known major wildlife movement corridors. BIO/mm-16.1 through BIO/mm-16.3 would prevent impacts to wetlands and other aquatic habitat from the installation of off-site water improvements. There are no other wetland or riparian habitats in the project area.</p>
<p>Policy BR 1.3 Environmental Review. Require environmental review of development applications pursuant to CEQA and County procedures to assess the impact of proposed development on native species and habitat diversity, particularly special-status species, sensitive natural communities, wetlands, and important wildlife nursery areas and movement corridors.</p>	<p>The intent of this policy is to protect sensitive resources by ensuring adequate environmental review of development applications.</p>	<p>Potentially Consistent. The DRSP and all related entitlements, as well as future development proposed within the DRSP, and all future required off-site improvements have been analyzed in this EIR. The DRSP EIR is intended to expedite the processing of future projects that are consistent with the DRSP and consistent with the analysis and findings of this EIR.</p> <p>If, when considering subsequent development proposals, the County determines that a proposed development would be consistent with the uses described herein and would not result in new or more severe significant environmental effects or require additional mitigation, the County can approve the project without additional environmental review (California Government Code Section 65457 and State CEQA Guidelines Section 15182). However, if there are significant changes proposed that are not consistent with the approved DRSP or the type and level of development analyzed in this EIR that the County concludes may result in new significant environmental impacts, additional environmental review would be required consistent with the requirements of the State CEQA Guidelines Section 15162.</p>

Goals, Policies, Plans, Programs and Standards	Intent of the Policy in Relation to Avoiding or Mitigating Significant Environmental Impacts	Preliminary Consistency Determination
<p>Policy BR 1.4 No Net Loss. Require that development projects are approved with conditions and mitigation measures to ensure the protection of sensitive resources and to achieve "no net loss" of sensitive habitat acreage, values, and function. Give highest priority to avoidance of sensitive habitat. When avoidance is not feasible, require provision of replacement habitat onsite through restoration and/or habitat creation. When onsite mitigation is not feasible, provide for offsite mitigation that reflects no net loss.</p>	<p>The intent of this policy is to achieve "no net loss" of sensitive habitat acreage, values, and function.</p>	<p>Potentially Inconsistent. The project has significant impacts to special-status plant species and sensitive natural communities that would constitute a net loss of species and habitat diversity in the County. The 1:1 mitigation ratio in BIO/mm-4.1 for California spineflower, sand buck brush, and sand almond would constitute a net loss for these species. Of the 3,943 oak trees to be removed, Mitigation Measure BIO/mm-17.2 only requires the applicant to plant replacement trees for 194 of the trees being removed. At this level, this is a significant net loss of oak trees and acreage of oak woodlands in the County.</p>
<p>Policy BR 1.9 Preserve Ecotones. Require that proposed discretionary development protects and enhances ecotones, or natural transitions between habitat types because of their importance to vegetation and wildlife. Ecotones of particular concern include those along the margins of riparian corridors, baylands and marshlands, vernal pools, and woodlands and forests where they transition to grasslands and other habitat types.</p>	<p>The intent of this policy is to protect and enhance ecotones, or natural transitions between habitat types.</p>	<p>Potentially Inconsistent. It is currently unknown whether it would be feasible to locate and preserve coast live oak woodland within the range of Burton Mesa chaparral, as required by mitigation measure BIO/mm 13.1, because that combination of habitats is not a common occurrence. It is within this unique transitional area where certain special-status plant species thrive. Similar ecotones will be preserved on the Dana Ridge Mitigation Site, but it does not preserve the same habitat types or support the same woodland species.</p>
<p>Policy BR 1.11 Protect wildlife nursery areas and movement corridors. Identify, protect, and enable the management of connected habitat areas for wildlife movement. Features of particular importance to wildlife for movement may include, but are not limited to, riparian corridors, shorelines of the coast and bay, and ridgelines. Identification and designation of wildlife corridors will not interfere with agricultural uses on private lands.</p>	<p>The intent of this policy is to protect wildlife nursery areas and movement corridors.</p>	<p>Potentially Consistent. The project site contains no significant wildlife movement corridors or nursery areas. Therefore, there will be no significant impacts to these resources.</p>
<p>Policy BR 1.12 Development Impacts to Corridors. Ensure that important corridors for wildlife movement and dispersal are protected as a condition of discretionary permits. Provide linkages and corridors as needed to connect sensitive habitat areas such as woodlands, forests, and wetlands.</p> <p>Implementation Strategy BR 1.12.1. Identify and protect wildlife corridors. Require all discretionary development applications in rural areas, including land divisions, to identify and protect wildlife corridors, and avoid disturbance of identified key wildlife corridors as the primary method of protection.</p> <p>Implementation Strategy BR 1.12.2. Mitigate impacts to wildlife corridors. If avoidance is not feasible, re-establish and/or restore important wildlife corridors that may have been damaged or disrupted.</p>	<p>The intent of this policy is to protect and mitigate for impacts to important wildlife corridors.</p>	<p>Potentially Consistent. The project site contains no significant wildlife movement corridors or nursery areas. Therefore, there will be no significant impacts to these resources.</p>
<p>Policy BR 1.13 Maintain safe wildlife movement. Maintain and enhance existing stream channels and riparian corridors to provide for wildlife movement at roadway crossings.</p>	<p>The intent of this policy is to maintain wildlife movement corridors.</p>	<p>Potentially Consistent. The project site contains no significant wildlife movement corridors. Therefore, there will be no significant impacts to these resources.</p>

Goals, Policies, Plans, Programs and Standards	Intent of the Policy in Relation to Avoiding or Mitigating Significant Environmental Impacts	Preliminary Consistency Determination
<p>Policy BR 1.14 Wildlife and roadways. Include the need for wildlife movement in designing and expanding major roadways and stream crossings.</p>	<p>The intent of this policy is to provide for wildlife movement across roadways and stream crossings.</p>	<p>Potentially Consistent. The project site contains no significant wildlife movement corridors. Therefore, there will be no significant impacts to these resources.</p>
<p>Policy BR 1.15 Restrict disturbance in sensitive habitat during nesting season. Avoid impacts to sensitive riparian corridors, wetlands, and coastal areas to protect bird-nesting activities.</p> <p>Implementation Strategy BR 1.15.1. Identify setbacks from bird nesting areas. Design land divisions and development with adequate setbacks from sensitive habitat areas that are occupied during the nesting season to protect bird nesting, rearing, and fledging activities.</p> <p>Implementation Strategy BR 1.15.2. Preconstruction surveys for bird nesting areas. Require preconstruction surveys, using established protocols, where development is proposed in sensitive habitat areas during the nesting season in order to protect nests in active use.</p>	<p>The intent of this policy is to protect nesting birds.</p>	<p>Potentially Consistent. Through the implementation of Mitigation Measure BIO/mm-7.1 to avoid nesting birds, the project will be consistent with this policy.</p>
<p>Goal BR 2 Threatened, rare, endangered, and sensitive species will be protected.</p>	<p>The intent of this policy is to protect threatened, rare, endangered, and sensitive species.</p>	<p>Potentially Consistent. Populations of threatened, rare, and endangered species shall be protected through the implementation of mitigation measures to preserve occupied habitat areas.</p>
<p>Policy BR 2.1 Coordinate with Trustee Agencies. The County will consult with trustee and other relevant state and federal agencies during environmental review when special-status species, sensitive natural communities, marine resources, or wetlands may be affected.</p> <p>Implementation Strategy BR 2.1.1. Coordination with trustees during discretionary review. During review of discretionary development applications, coordinate with relevant trustee agencies and require evidence of compliance with any necessary permits from federal and state agencies prior to issuance of grading or building permits.</p>	<p>The intent of this policy is to ensure the relevant federal and state agencies are consulted during environmental review when special-status species, sensitive natural communities, marine resources, or wetlands may be affected.</p>	<p>Potentially Consistent. Mitigation measures require the project applicant to obtain all necessary approvals from USACE, CDFW, and RWQCB prior to issuance of the grading permit.</p>
<p>Policy BR 2.2 Promote Early Consultation with Other Agencies. Require applicants to consult with all agencies with review and/or permit authority for projects in areas supporting wetlands and special-status species at the earliest opportunity.</p> <p>Implementation Strategy BR 2.2.1. Promote pre-application activities. Inform applicants during pre-application review or other pre-submittal activities about other agencies that may have jurisdiction, and the policies and standards of those agencies that may regulate proposed development activities.</p>	<p>The intent of this policy is to promote early consultation with the appropriate federal and state agencies.</p>	<p>Potentially Consistent. Mitigation measures require the project applicant to obtain all necessary approvals from USACE, CDFW, and RWQCB prior to issuance of the grading permit.</p>

Goals, Policies, Plans, Programs and Standards	Intent of the Policy in Relation to Avoiding or Mitigating Significant Environmental Impacts	Preliminary Consistency Determination
<p>Policy BR 2.4 Species Recovery Programs. Support recovery programs for endangered and threatened species.</p> <p>Implementation Strategy BR 2.4.1. Require consistency with recovery plans. Require that applications for discretionary land use projects and land divisions located in the habitat for endangered or threatened species be consistent with applicable recovery plans.</p>	<p>The intent of this policy is to support recovery programs for endangered and threatened species.</p>	<p>Potentially Consistent. Mitigation measures will require mitigation for impacts to state-listed Pismo Clarkia and any other federally or state-listed species potentially affected by the proposed project.</p>
<p>Policy BR 2.6 Development impacts to listed species. Ensure that potential adverse impacts to threatened, rare, and endangered species from development are avoided or minimized through project siting and design. Ensure that proposed development avoids significant disturbance of sensitive natural plant communities that contain special-status plant species or provide critical habitat to special-status animal species. When avoidance is not feasible, require no net loss of sensitive natural plant communities and critical habitat areas.</p> <p>Implementation Strategy BR 2.6.1. Use of biological resource surveys. Require applications for discretionary projects and land divisions to provide a biological resource survey performed by a qualified biologist when needed to address special-status animal and plant species and their associated habitats.</p> <p>Implementation Strategy BR 2.6.2. Use of habitat preservation ratio. Where avoidance, restoration, or replacement of habitat of special status species is not feasible, require preservation and/or enhancement of similar habitat at a minimum 2:1 ratio to avoid significant cumulative loss of valuable habitats and to achieve no net loss of habitat value.</p> <p>Implementation Strategy BR 2.6.3. Use of easements to protect habitat. Obtain easements or dedications to protect habitat, especially where it is connected to other large areas of unique or sensitive habitat. Natural open space areas in development projects should be contiguous to natural areas adjacent to the site wherever possible.</p> <p>Implementation Strategy BR 2.6.4. Use of habitat banking or TDC program. As an alternative to onsite mitigation and habitat protection, consider participation in an established habitat banking or Transfer of Development Credit (TDC) program if the project meets the criteria of the program.</p> <p>Implementation Strategy BR 2.6.5. Habitat banking program. Evaluate the development of a habitat-banking program to mitigate the effects of development on unique or sensitive habitat.</p>	<p>The intent of this policy is to ensure potential adverse effects to sensitive species are avoided through project siting and design.</p>	<p>Potentially Inconsistent. Consistent with County COSE Policy BR 2.6.3 and SB 1334, the proposed project would create a conservation easement to permanently preserve habitat at Dana Ridge. The 1:1 mitigation ratio specified in BIO/mm-4.1 is inconsistent with County COSE Policy BR 2.6 and constitutes a net loss for California spineflower, sand buck brush, and sand almond. In addition, there is a lack of information about the cultural requirements to successfully propagate California spineflower at a large scale, and sand almond propagation is very difficult. Because of the feasibility of successfully implementing this mitigation, residual impacts would be significant and unavoidable. Thus, the project would be potentially inconsistent with this policy.</p>

Goals, Policies, Plans, Programs and Standards	Intent of the Policy in Relation to Avoiding or Mitigating Significant Environmental Impacts	Preliminary Consistency Determination
<p>Policy BR 2.7 Fire suppression and sensitive plants and habitats. Balance the need for fire suppression and/or vegetation (fuel) management with the need to protect sensitive biological resources. Where possible, design land divisions and development so that fuel-breaks, vegetation, or fuel modification areas that are needed to reduce fire hazards do not disrupt special-status plant communities or critical habitat for special status animal species. Fuel-breaks and vegetation or fuel modification areas shall be located on the development side of required setbacks from sensitive features and shall be in addition to the required setbacks.</p>	<p>The intent of this policy is to balance the need for fire suppression and/or vegetation (fuel) management with the need to protect sensitive biological resources.</p>	<p>Potentially Consistent. Burton Mesa chaparral is a fire-dependent ecosystem. Through the requirement of off-site habitat preservation, the project is mitigating potential impacts to the sensitive natural community while minimizing fire risk around dense urban area. Mitigation measures also require adequate fire breaks between oak forest conservation areas and urban development.</p>
<p>Policy BR 2.8 Invasive plant species. Promote and support efforts to reduce the effects of noxious weeds on natural habitats. The County will work with local resource and land management agencies to develop a comprehensive approach to controlling the spread of non-native invasive species and reducing their extent on both public and private land.</p>	<p>The intent of this policy is to minimize the spread of invasive plant species.</p>	<p>Potentially Consistent. The landscape architect shall provide a signed statement on the landscape plans that the planting plan does not include any plant that occurs on the California Exotic Pest Plant Council and the California Invasive Plant Council (Cal-IPC) Lists 1, 2, and 4. Plants considered invasive by the California Exotic Pest Plant Council and the Cal-IPC shall not be used on-site.</p>
<p>Policy BR 2.9 Promote the use of native plant species. Landscaping for proposed development will use a variety of native or compatible non-native, non-invasive plant species as part of project landscaping to improve wildlife habitat values.</p>	<p>The intent of this policy is to promote the use of native plant species.</p>	<p>Potentially Consistent. On-site planting plans require the use of plants typical of Nipomo Mesa native oak woodlands in open space planting palettes (Mitigation Measure BIO/mm-17.2).</p>
<p>Goal BR 3 Maintain the acreage of native woodlands, forests, and trees at 2008 levels.</p>	<p>The intent of this policy is to maintain the acreage of native woodlands, forests, and trees at 2008 levels.</p>	<p>Potentially Inconsistent. Of the 3,943 oak trees to be removed, the mitigation only requires the applicant to plant replacement trees for 194 of the trees being removed. At this level, this is a significant net loss of oak trees and acreage of oak woodlands in the county.</p>
<p>Policy BR 3.1 Native tree protection. Protect native and biologically valuable trees, oak woodlands, trees with historical significance, and forest habitats to the maximum extent feasible.</p>	<p>The intent of this policy is to protect native and biologically valuable trees, oak woodlands, trees with historical significance, and forest habitats.</p>	<p>Potentially Inconsistent. The project has significant unavoidable impacts to oak woodlands that would constitute a significant loss in the biological value of oak woodlands in the county.</p>
<p>Policy BR 3.2 Protection of native trees in new development. Require proposed discretionary development and land divisions to avoid damage to native trees (e.g., Monterey Pines, oaks) through setbacks, clustering, or other appropriate measures. When avoidance is not feasible, require mitigation measures.</p> <p>Implementation Strategy BR 3.2.1. Tree replacement in new development. If avoidance of damage to native specimen trees is not feasible in discretionary land use permits and land divisions, require mitigation measures such as tree replacement using native stock at specified ratios, replanting plans, reseeding disturbed open areas with native, drought, and fire resistant species. A long-term monitoring plan will also be required.</p>	<p>The intent of this policy is to protect native trees.</p>	<p>Potentially Inconsistent. Of the 3,943 oak trees to be removed, the mitigation requires the applicant to plant replacement trees for 194 of the trees being removed. At this level, this is a significant net loss of oak trees and acreage of oak woodlands in the county.</p>

Goals, Policies, Plans, Programs and Standards	Intent of the Policy in Relation to Avoiding or Mitigating Significant Environmental Impacts	Preliminary Consistency Determination
<p>Policy BR 3.3 Oak Woodland Preservation. Maintain and improve oak woodland habitat to provide for slope stabilization, soil protection, species diversity, and wildlife habitat.</p> <p>Implementation Strategy BR 3.3.1. Implement Oak Woodlands Preservation Act. Comply with the Oak Woodlands Preservation Act (PRC Section 21083.4) through the review of proposed discretionary development by maintaining the integrity and diversity of oak woodlands, chaparral communities, and other significant vegetation.</p>	<p>The intent of this policy is to maintain the integrity and diversity of oak woodlands, chaparral communities, and other significant vegetation in the county.</p>	<p>Potentially Inconsistent. In order to maintain the diversity of oak woodlands in the county, per County COSE Policy BR 3.3.1, mitigation for coast live oak woodlands should occur adjacent to the conservation/ restoration of Burton Mesa chaparral. However, it is currently unknown whether it would be feasible to locate and preserve coast live oak woodland within the range of Burton Mesa chaparral, as required by Mitigation Measure BIO/mm 13.1, because that combination of habitats is not a common occurrence. Therefore, due to the potential infeasibility of mitigation, residual impacts would be significant and unavoidable.</p>
<p>Policy BR 3.5 Non-native trees. Protect healthy and non-hazardous, non-native trees (e.g., eucalyptus groves) and forests that provide raptor nesting or roosting sites or support colonies of monarch butterflies.</p>	<p>The intent of this policy is to protect raptor nesting or roosting sites or support colonies of monarch butterflies.</p>	<p>Potentially Consistent. The project will not impact the eucalyptus grove located adjacent to the property. Mitigation measures are in place to prevent impacts to nesting raptors and roosting colonies of monarch butterflies.</p>
<p>Policy BR 4.1 Protect stream resources. Protect streams and riparian vegetation to preserve water quality and flood control functions and associated fish and wildlife habitat.</p>	<p>The intent of this policy is to protect stream resources.</p>	<p>Potentially Consistent. Mitigation Measure BIO/mm 16.1 will require the applicant to conduct a wetland delineation and obtain appropriate federal and state permits to avoid and minimize impacts to Nipomo Creek and its tributaries.</p>
<p>Policy BR 4.2 Minimize impacts from development. Minimize the impacts of public and private development on streams and associated riparian vegetation due to construction, grading, resource extraction, and development near streams.</p>	<p>The intent of this policy is to protect streams and associated riparian vegetation from development activities.</p>	<p>Potentially Consistent. Mitigation Measure BIO/mm 16.1 will require the applicant to conduct a wetland delineation and obtain appropriate federal and state permits to avoid and minimize impacts to Nipomo Creek and its tributaries.</p>
<p>Policy BR 4.7 Contamination from pesticides. Contamination from the use of commercial, residential, and public application of pesticides and herbicides into all inland and coastal waters, including but not limited to rivers, streams, wetlands, and intertidal areas shall be eliminated.</p>	<p>The intent of this policy is to prevent contamination of waters from the application of pesticides and herbicides.</p>	<p>Potentially Consistent. The applicant shall be required to prepare a Stormwater Pollution Prevention Plan (SWPPP), prepare a Spill Prevention and Contingency Plan, and identify best management practices (BMPs) when working within 50 feet of Nipomo Creek or any other creek or wetland area (Mitigation Measure BIO/mm 16.3).</p>
<p>Policy BR 5.1 Protect wetlands. Require development to avoid wetlands and provide upland buffers.</p>	<p>The intent of this policy is to avoid impacts to wetlands and provide upland buffers.</p>	<p>Potentially Consistent. Mitigation Measure BIO/mm-16.1 will require the applicant to conduct a wetland delineation and obtain appropriate federal and state permits to avoid and minimize impacts to Nipomo Creek and its tributaries.</p>
<p>Policy BR 5.2 No net loss. Ensure that all public and private projects avoid impacts to wetlands if feasible. If avoidance is not feasible, ensure no net loss of wetlands, consistent with state and federal regulations and this Element.</p>	<p>The intent of this policy is to avoid impacts to wetlands.</p>	<p>Potentially Consistent. Mitigation measure BIO/mm-16.1 will require the applicant to conduct a wetland delineation and obtain appropriate federal and state permits to avoid and minimize impacts to Nipomo Creek and its tributaries.</p>

Goals, Policies, Plans, Programs and Standards	Intent of the Policy in Relation to Avoiding or Mitigating Significant Environmental Impacts	Preliminary Consistency Determination
<p>Policy OS 1.1 Future open space protection. Continue to identify and protect open space resources with the following characteristics:</p> <ul style="list-style-type: none"> Recreation areas Ecosystems and environmentally sensitive resources such as natural area preserves, streams and riparian vegetation, unique, sensitive habitat, natural communities, significant marine resources Archaeological, cultural, and historical resources Scenic areas Hazard areas Rural character 	<p>The intent of this policy is to protect and preserve a diversity of resources within protected open space areas.</p>	<p>Potentially Consistent. Project mitigation will require the applicant to preserve open space that contains sensitive Burton Mesa chaparral and oak woodland habitats that contain populations of special-status species.</p>
<p>Policy OS 2.1 Open Space management to protect, sustain, and restore. Manage open space resources on public lands to protect, sustain, and, where necessary, restore the resources. Encourage such management strategies on private lands.</p>	<p>The intent of this policy is to properly manage open space resources on public lands to protect, sustain, and, where necessary, restore the resources.</p>	<p>Potentially Consistent. Project mitigation will require the applicant to preserve open space that contains sensitive Burton Mesa chaparral and oak woodland habitats that contain populations of special-status species. Significant restoration of Burton Mesa chaparral, oak trees, and populations of special-status plant species will occur on dedicated open space lands.</p>
<p>Framework for Planning (Inland)</p>		
<p>Principle 1: Preserve open space, scenic natural beauty, and natural resources. Conserve energy resources. Protect agricultural land and resources.</p>	<p>The intent of this policy is to preserve open space, scenic natural beauty, and natural resources.</p>	<p>Potentially Consistent. The project will protect the densest area of oaks on the property in an attempt to preserve the scenic natural beauty of the area.</p>
<p>Policy 3. Preserve and sustain important water resources, watersheds and riparian habitats.</p>	<p>The intent of this policy is to preserve and sustain important water resources, watersheds, and riparian habitats.</p>	<p>Potentially Consistent. No riparian areas will be impacted by the construction of the main project. Mitigation Measure BIO/mm-16.1 will require the applicant to conduct a wetland delineation and obtain appropriate federal and state permits to avoid and minimize impacts to Nipomo Creek and its tributaries.</p>
<p>SLOCOG 2019 Regional Transportation Plan (RTP)</p>		
<p>Policy Objective 6.4. Conserve and protect natural, sensitive, and agricultural resources.</p>	<p>The intent of this policy is to maintain and preserve open space areas throughout the region.</p>	<p>Potentially Consistent. The project will protect the densest area of oaks on the property. Project mitigation will require the applicant to preserve open space that contains sensitive Burton Mesa chaparral and oak woodland habitats that contain populations of special-status species.</p>
<p>County of San Luis Obispo Inland Land Use Ordinance (Title 22)</p>		
<p>22.98.072(H)(1)(e) Landscaping. Retain and incorporate existing vegetation as much as feasible into the subdivision design. Plant California native trees within the dedicated road right-of-way where feasible and in the front setback area in staggered, natural-appearing patterns to buffer views from the public road. Eucalyptus trees may be removed unless benefits from visual character and monarch butterfly</p>	<p>The intent of this policy is to maintain and preserve existing vegetation and plant native species in dedicated ROW areas where feasible.</p>	<p>Potentially Consistent. The project will protect the densest area of oaks on the property. Native oaks will be included in the landscape planting plan for streets and recreational open spaces and plantings palettes shall include plants typical of Nipomo Mesa native oak woodlands (Mitigation Measure BIO/mm-17.2).</p>

Goals, Policies, Plans, Programs and Standards	Intent of the Policy in Relation to Avoiding or Mitigating Significant Environmental Impacts	Preliminary Consistency Determination
<p>habitat warrant further protection. Where eucalyptus trees are removed, replace with California native trees, retaining older, more mature eucalyptus trees where possible.</p>		
<p>SLOLAFCO Policies and Procedures</p>		
<p>General Policies</p>		
<p>8. The Commission will recognize and preserve clearly defined, long-term agricultural and open space areas established by the County or other jurisdictions to preserve critical environmental areas and to bolster local economies (CKH 56001). This may be accomplished using agricultural easements, open space easements, conservation easements, or other mechanisms, that preserve agricultural or open space lands in perpetuity.</p>	<p>The intent of this policy is to establish open space areas through the use of easements or other mechanisms that preserve open space lands in perpetuity.</p>	<p>Potentially Consistent. Lands used to satisfy mitigation requirements for impacts to sensitive biological resources shall be protected in perpetuity through the use of a conservation easement.</p>

4.4.3 Thresholds of Significance

The determinations of significance of project impacts are based on applicable policies, regulations, goals, and guidelines defined by CEQA and the County. Specifically, the project would be considered to have a significant effect on biological resources if the effects exceed the significance criteria described below:

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

Each of these thresholds is discussed under Section 4.4.5, *Project-Specific Impacts and Mitigation Measures*.

As discussed in the IS/NOP, the County determined the proposed project would not conflict with the provisions of an adopted HCP, Natural Community Conservation Plan, or other approved local, regional, or state HCP. Therefore, issues related to the following thresholds of significance are not discussed further in the EIR:

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

See EIR Appendix B, *Notice of Preparation for the Draft Environmental Impact Report and Comment Letters*, for more information.

4.4.4 Impact Assessment and Methodology

The impact assessment focuses on identifying potential impacts associated with implementation of the project and is based on the site’s existing conditions, the regulatory setting, and the project description. The emphasis is on determining the potential effects of the project on federal, state, and locally regulated species and habitats on the project site. Adverse impacts could occur if the project could result in temporary or permanent modification of sensitive communities or habitats occupied by special-status species, or directly affect special-status species. The impact assessment is based on the results of technical studies prepared for the project (Althouse and Meade 2022a) (see EIR Appendix E).

4.4.5 Project-Specific Impacts and Mitigation Measures

WOULD THE PROJECT HAVE A SUBSTANTIAL ADVERSE EFFECT, EITHER DIRECTLY OR THROUGH HABITAT MODIFICATIONS, ON ANY SPECIES IDENTIFIED AS A CANDIDATE, SENSITIVE, OR SPECIAL-STATUS SPECIES IN LOCAL OR REGIONAL PLANS, POLICIES, OR REGULATIONS, OR BY THE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE OR U.S. FISH AND WILDLIFE SERVICE?

Specific Plan Area

BIO Impact 1: The project could directly or indirectly impact special-status plant and wildlife species. Impacts would be significant and unavoidable (Class I).

The project would impact approximately 266.5 acres, including 21.7 acres of coast live oak forest, 75.3 acres of coast live oak woodland, 35.0 acres of Burton Mesa chaparral, 125.0 acres of California perennial grassland, 3.2 acres of annual brome grassland, and 5.1 acres of Mediterranean California naturalized perennial grassland (Table 4.4-7; Figure 4.4-8). Approximately 17 acres of coast live oak woodland and forest plus 1 acre of Burton Mesa chaparral would be preserved on-site in a biological open space easement.

Table 4.4-7. Direct Habitat Impacts from Project

Habitat Type (State Rank)	Impact (acres)	Preserved (acres)	Total (acres)
Coast live oak forest (GNR)	21.7	17.0	38.7
Coast live oak woodland (S3)	75.3	3.0	78.3
Burton Mesa chaparral (S1)	35.0	0.9	36.0
California perennial grassland group	125.0	1.0	126
Mediterranean California naturalized perennial grassland group	5.1	0	5.1
Annual brome grassland alliance	3.2	0	3.2
Anthropogenic	1.2	0	1.2
Total	266.5	21.9	288.5

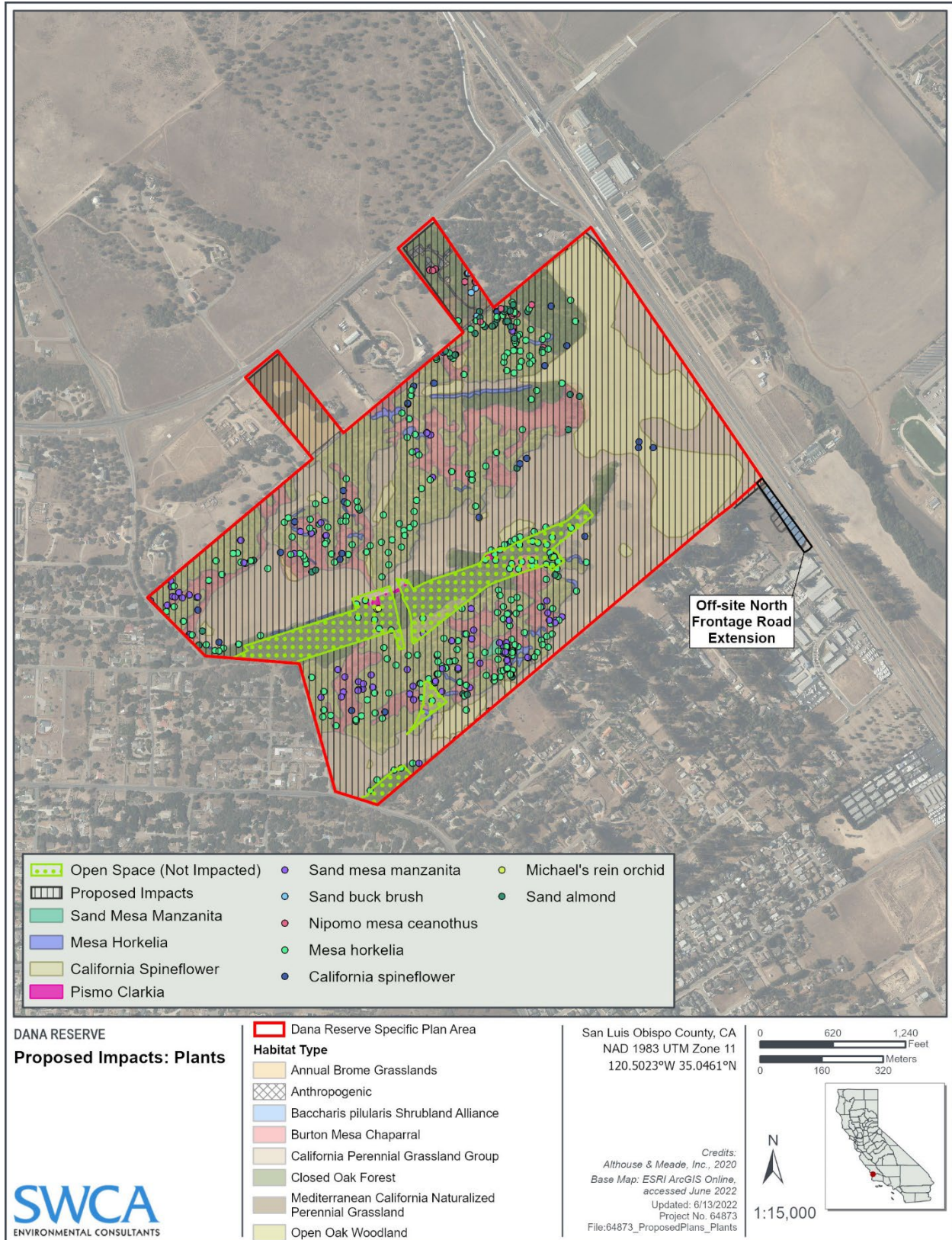


Figure 4.4-8. Proposed impacts: plants.

The proposed project site has the potential to support the special-status plant and wildlife species listed in Section 4.4.1, *Existing Conditions*. Project activities, including tree removal, grading, demolition, utility installation, paving, etc., could result in impacts to special-status species and their habitat. Direct impacts could include trampling, being exposed to predation, being collected, being entombed, and loss of habitat. Indirect impacts could include stress and loss of reproductive success among relocated individuals, excessive noise resulting in site or nest abandonment, increased human activity resulting in changes to wildlife movement and behaviors, increased vehicle use of the area exacerbating road kills, or introduction of invasive plant species that could change habitat conditions to open space preserved on site. Therefore, impacts would be *significant and unavoidable*.

BIO Impact 1 (Class I)	
The project could directly or indirectly impact special-status plant and wildlife species.	
Mitigation Measures	
BIO/mm-1.1	<p>Environmental Monitor. Prior to permit issuance for any future development within the project area, the applicant shall retain an environmental monitor for all measures requiring environmental mitigation. The monitor shall be responsible for:</p> <ol style="list-style-type: none"> 1. ensuring that procedures for verifying compliance with environmental mitigations are implemented; 2. establishing lines of communication and reporting methods; 3. conducting compliance reporting; 4. conducting construction crew training regarding environmentally sensitive areas and protected species; 5. maintaining authority to stop work; and 6. outlining actions to be taken in the event of non-compliance. <p>Monitoring shall be conducted full time during the initial disturbances (site clearing) and be reduced to monthly following initial disturbances.</p>
BIO/mm-1.2	<p>Worker Environmental Training Program. Prior to implementation of construction activities (including staging and mobilization), all personnel associated with project construction shall attend a training to facilitate worker environmental awareness. The Worker Environmental Training shall be conducted by a County-approved qualified biologist to help workers recognize special-status plants and animals to be protected in the project area. The training program shall include:</p> <ol style="list-style-type: none"> 1. Identification of relevant sensitive species and habitats. 2. Description of the regulatory status and general ecological characteristics of sensitive resources, and review of the limits of construction and avoidance measures required to reduce impacts to biological resources within the work area. 3. Consequences for non-compliance. 4. Fact sheet with information covered in training for distribution to all contractors and other personnel involved with construction of the project. 5. Web-link to maps showing locations of special-status taxa on-site, and literature and photographs or illustrations of sensitive plants, animals, and habitats. 6. Documentation of each employee's participation in trainings and information presented. 7. Annual renewal training for the duration of the project. <p>The contractor shall set aside time for the project biologist to provide the Worker Environmental Training for all contractor's and subcontractor's employees that will be on-site regarding resource protection. Topics will include regulatory framework and best practices to avoid and minimize impacts to protected plants, protected animals, and their habitats. Approximately 30 minutes shall be allocated for training. Each group of new personnel or individuals shall be provided with an environmental briefing by the project biologist. This training may be virtual.</p>

BIO Impact 1 (Class I)	
	<p><i>During morning safety briefings, the project biologist may provide updates related to environmental conditions affected by scheduled actions.</i></p> <p><i>Contractor's and subcontractor's employees will be given a pocket-sized booklet by the project biologist in digital and/or paper format summarizing the Worker Environmental Training. The booklet prepared by the project biologist will include points of contact and protocol regarding emergencies and protected resource matters. Contractor's and subcontractor's employees shall be familiar with the information in the booklet and shall follow all rules and directions in the booklet while performing work for the project. Contractor's and subcontractor's employees shall always have a copy of the booklet while on the project site.</i></p>
BIO/mm-1.3	<p>Cover Excavations. <i>During construction, all trenches, holes, and other excavations with sidewalls steeper than a 1:1 (45 degree) slope and 2 or more feet deep shall be covered when workers or equipment are not actively working in the excavation. If any such excavations remain uncovered, they shall have an escape ramp of earth or a non-slip material with a 1:1 (45 degree) slope or flatter. All excavated areas shall be inspected for wildlife before backfilling.</i></p>
BIO/mm-1.4	<p>Biodegradable Erosion Control. <i>During construction, use erosion control products made of natural fiber (biodegradable) to prevent wildlife from getting ensnared or strangled by monofilament, coir rolls, erosion control mats or blankets, straw or fiber wattles, or similar erosion control products.</i></p>
BIO/mm-1.5	<p>Public Education Program. <i>In support of the mitigation measures listed above, public education shall be provided to homeowners, commercial facility owners, and investors regarding protected plants, protected animals, and their habitat. A colorful booklet shall be distributed to homeowners, commercial owners, and occupants. Information in the booklet shall also be made available as an interactive website provided to the County and the Homeowners' Association(s). Information shall include descriptions of sensitive plant and animal habitats impacted, protected, and mitigations implemented. Diagnostic information for sensitive plant and animal taxa and their habitats shall be provided in a reader-friendly format. Booklet and website text shall be prepared by technical experts and produced in cooperation with professional graphic artists and publication specialists.</i></p>
BIO/mm-1.6	<p>Prohibition of Invasive Plants. <i>The landscape architect shall provide a signed statement on the landscape plans that the planting plan does not include any plant that occurs on the California Exotic Pest Plant Council and the California Invasive Plant Council (Cal-IPC) Lists 1, 2, and 4. Plants considered to be invasive by the California Exotic Pest Plant Council and the Cal-IPC shall not be used on-site.</i></p>
Residual Impacts	
<p><i>Implementation of Mitigation Measures BIO/mm-1.1 through BIO/mm-1.6 will help minimize the direct and indirect impacts to special-status plants and wildlife and their habitats during construction, but without additional avoidance, minimization, and mitigation measures, impacts would still be considered significant. Additional species-specific analysis and additional mitigation measures are discussed below. For some species and habitats, feasible mitigation may not be possible; therefore, residual impacts would be significant and unavoidable (Class I), as discussed in further detail below.</i></p>	

Special-Status Plants

Eight special-status plant taxa were observed on the property in four of the six habitat types on-site. One federally endangered, state rare, and CRPR 1B.1 plant taxon—Pismo clarkia—was identified during site surveys. Other sensitive plant taxa include one other CRPR 1B.1 (mesa horkelia), two CRPR 1B.2 (sand mesa manzanita and Nipomo Mesa ceanothus), three CRPR 4.2 (Michael’s rein orchid, California spineflower, and sand buck brush), and one CRPR 4.3 (sand almond). Impacts to sensitive plant taxa and corresponding mitigation ratios to mitigate for those impacts are summarized in Table 4.4-8. Impacts to each special-status plant species is discussed separately in the following paragraphs.

BIO Impact 2: The project could directly and indirectly impact Pismo clarkia. Impacts would be significant but mitigable (Class II).

Pismo clarkia (federally endangered, state rare, CRPR 1B.1) is a taxon listed as endangered under the FESA, listed as rare by the State of California under the NPPA, and is a CRPR 1B.1 (seriously threatened in California). Thirty-seven individuals (0.02 acre) counted in May 2020 within Patch 5 will be directly impacted by arterial road “Collector B” (Figures 4.4-8 and 4.4-9). The proposed development’s open space includes all remaining habitat occupied by Pismo clarkia (0.2 acre, 6,100 individuals; Table 4.4-8; Figure 4.4-9). Within the proposed open space, the Pismo clarkia population is located on the northernmost edge of the coast live oak woodland habitat that is proposed for on-site preservation. The immediate adjacency of the remaining population to project construction and future residential land use may result in indirect impacts. Potential indirect impacts could include trampling of plants by pedestrians, compaction of soil, alteration of hydrology, disruption of pollinator network, herbicide usage, and non-native plant introduction. The remaining population areas fall within the designated fire fuel management area, which extends 100 feet past any structure. Significant annual vegetation disturbance for fire prevention will occur in the areas surrounding the remaining populations. This will exacerbate threats from invasive species and may make it hard to maintain avoided populations. This taxon is a Federal and State-Listed plant that is seriously threatened in California. Direct and indirect impacts to Pismo clarkia are considered significant and mitigation is required to reduce project impacts.

The project applicant must obtain all necessary approvals and concurrence with the CDFW for the take of a state-listed plant. Mitigation shall be required to reduce project impacts through the permanent conservation of habitat occupied by Pismo clarkia and expansion of Pismo clarkia extent to mitigate for direct impacts. Additional on-site avoidance measures for Pismo clarkia include habitat protection, worker training, fencing, biological monitoring, weed management, and avoidance of mowing/grazing during the plant’s annual growing season (February–July).

Although Pismo clarkia is also federally listed, there is currently no federal nexus for consulting with the USFWS. If the project would impact a federally jurisdictional water, require federal funding, or otherwise require consultation with the USFWS for take of a federally listed wildlife species, a Biological Opinion or HCP for take of Pismo clarkia would likely be required prior to implementation of the project.

No net loss of Pismo clarkia on-site is proposed for unavoidable impacts. This unavoidable impact to 0.02 acre of occupied Pismo clarkia habitat will be mitigated at a 3:1 ratio with on-site restoration and habitat enhancement to expand the extent of Pismo clarkia present in preserved open space. Mitigation Measures BIO/mm-2.1 through BIO/mm-2.3 are consistent with County COSE Policies BR 2.6.2 and BR 2.6.3 (Development Impacts to Listed Species), which include the use of a habitat preservation ratio of a minimum of 2:1 to avoid significant cumulative loss of valuable habitats and obtaining easements to protect habitat.

Table 4.4-8. Proposed Plan Impacts to Sensitive Plant Species

Sensitive Plant Species	Rarity	Impact (approximate count)	Impact Acres*	Preserved (approximate count)	Preserved Acres	Total (approximate count)	Percent Impact	Preservation Ratio of Occupied Habitat	Restoration Ratio of Unoccupied Suitable Habitat**
California spineflower	4.2	varies	42.6	0	0	varies	100%	N/A	1:1
Mesa horkelia	1B.1	6907	N/A	556	N/A	7463	93%	1:1	2:1
Michael's rein orchid	4.2	0	N/A	7	N/A	7	0%	N/A	N/A
Nipomo Mesa ceanothus	1B.2	50	N/A	0	N/A	50	100%	1:1	2:1
Pismo clarkia	FE/CR - 1B.1	37	0.02	6102	0.2	6139	1%	3:1	3:1
Sand almond	4.3	155	N/A	1	N/A	156	99%	N/A	1:1
Sand buck brush	4.2	21	N/A	0	N/A	21	100%	N/A	1:1
Sand mesa manzanita	1B.2	324	N/A	1	N/A	325	100%	1:1	2:1

* Acreage provided for taxa that were mapped using spatial polygons

** Mitigation proposed for any impacts to over 10% of CRPR 4 population.

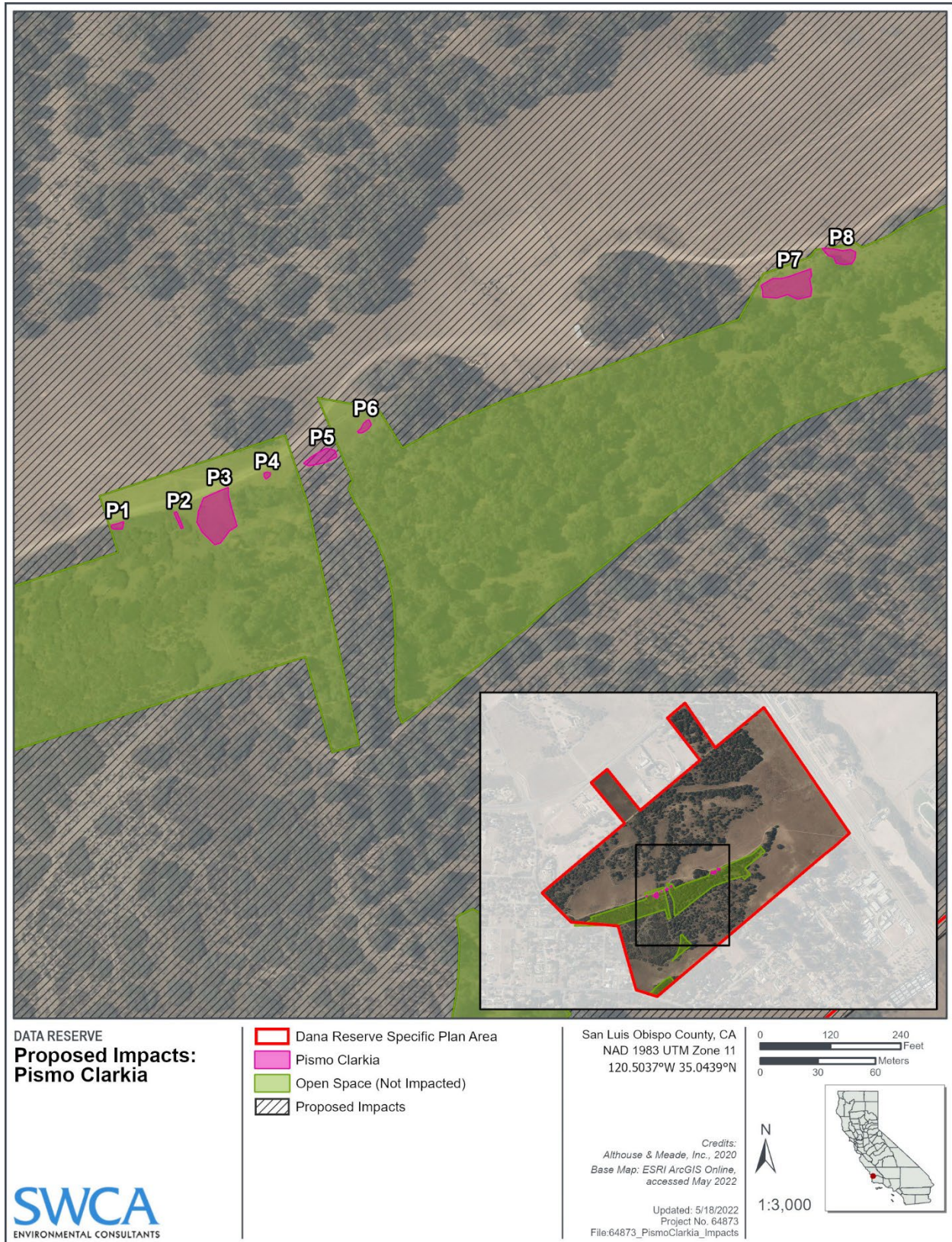


Figure 4.4-9. Proposed impacts: Pismo clarkia.

BIO Impact 2 (Class II)	
The project could directly and indirectly impact Pismo clarkia.	
Mitigation Measures	
Implement Mitigation Measures BIO/mm-1.1 through BIO/mm-1.6.	
BIO/mm-2.1	<p>Incidental Take Permit. Prior to any ground or vegetation disturbance that would impact Pismo clarkia (e.g., nearby tree removal, grading), the project applicant shall obtain all necessary approvals from the California Department of Fish and Wildlife. Concurrence shall be provided by the California Department of Fish and Wildlife that the project would result in take of a state-listed species and that an Incidental Take Permit, Conservation Easement, and Habitat Management Plan are required prior to disturbance under California Fish and Game Code Section 2081. A conservation easement over the Pismo clarkia habitat will include the California Department of Fish and Wildlife as a third-party beneficiary and may also include the County.</p>
BIO/mm-2.2	<p>Avoidance. Pismo clarkia patches identified on-site during 2019 and 2020 surveys shall be avoided to the maximum extent practicable.</p> <p>Immediately prior to construction, appropriately timed surveys will be conducted by a qualified biologist to determine the extent of the distribution of plants during the construction year. The extant population boundaries mapped in 2019 and 2020, plus any expansions observed during surveys conducted in the year of construction, will be flagged by a qualified biologist.</p>
BIO/mm-2.3	<p>Mitigation. Impacts to Pismo clarkia shall be mitigated at a 3:1 ratio of reoccupied habitat to occupied habitat impacted. The population extent and number of plants impacted will be equal to or will not exceed 0.02 acre and/or 40 individuals when seasonal climate conditions are similar to 2020 climate conditions. Additional surveys shall be conducted in 2022 and in the year immediately prior to construction to determine population size and the extent of impacts. In years less favorable than 2020 (appropriately timed and sufficient rainfall and temperature), the areal extent will remain the same.</p> <p>Impacts to individual Pismo clarkia plants will occur after seed collection. On-site seed collection of remaining populations used to reestablish additional populations shall be limited to no more than 10% of each remaining patch. The topsoil of impacted patches will be collected prior to site grading in order to preserve the seed bank. Topsoil will be relocated to suitable unoccupied habitat areas to promote the expansion of occupied habitat.</p> <p>Using seeds collected from the impacted population and preserved populations on-site, additional patches of the plant shall be reestablished at a 3:1 ratio along appropriate boundaries of preserved oak woodland habitat areas.</p> <p>A protective conservation easement shall be placed over on-site habitats that contain occupied and unoccupied habitat suitable for Pismo clarkia.</p> <p>Genetic analysis will be conducted to determine the similarity or difference between the population of Pismo clarkia on the Dana Reserve with at least two other populations in the Arroyo Grande region. This research and findings will be submitted to a peer reviewed journal and be part of the public record during the mitigation monitoring period.</p>
Residual Impacts	
With implementation of Mitigation Measures BIO/mm-1.1 through BIO/mm-1.6 and BIO/mm-2.1 through BIO/mm-2.3, potential impacts to Pismo clarkia and their habitat would be less than significant with mitigation (Class II).	

BIO Impact 3: The project could directly and indirectly impact mesa horkelia, Nipomo Mesa ceanothus, and sand mesa manzanita. Impacts would be less than significant with mitigation (Class II).

Plant taxa ranked CRPR 1B are considered rare, threatened, or endangered in California and elsewhere, although they may not be federally or state listed. Mesa horkelia, Nipomo Mesa ceanothus, and sand mesa manzanita (all CRPR 1B taxa) are all plant taxa that are highly endemic to the central coast of California. These three taxa are scattered around and within approximately 150 acres of coast live oak and Burton Mesa chaparral habitats in the project area. Of these 150 acres, 129 acres will be permanently impacted by the project. Based on County COSE Policy BR 2.6, where avoidance is not feasible, listed taxa require preservation and/or enhancement of similar habitat at a minimum 2:1 ratio to avoid significant cumulative loss and to achieve a no net loss of habitat value, and habitat shall be placed under a protective easement. However, due to endemism of these taxa, to prevent the elimination of these species during the temporal loss they will incur during the mitigation and monitoring period, preservation of established populations is proposed at a 1:1 ratio in addition to restoration/reestablishment at a 2:1 ratio to achieve the County's "no net loss" policy.

Mitigation measures under BIO Impact 3 include habitat preservation and restoration on appropriate conserved property(ies) that includes mitigation for various sensitive plant and animal species on the same parcel (stacked mitigation). For example, a property with suitable habitat for mesa horkelia may also provide opportunities to support legless lizards and sand buck brush. Suitable habitat for mitigation of Burton Mesa chaparral and coast live oak woodland (BIO Impact 13 and BIO Impact 14) should also contain sandy habitat suitable for mitigation of constituent plant taxa represented within the Specific Plan Area.

Mesa horkelia is ranked CRPR 1B.1 (seriously threatened) and is endemic to California's central and south coast region (CNPS 2021b). The Global rank of the species is secure, but this variety is critically imperiled. CNPS states that many historical occurrences are extirpated and information is needed on the current status of each occurrence. The species is primarily threatened by habitat conversion. It intergrades with other subspecies and populations, representing the true *puberula* variety is declining.

Proposed development would directly impact approximately 92% of mesa horkelia (approximately 7,000 plants) and preserve the remaining 7% located in scattered patches within the 21.9-acre proposed open space easement (approximately 500 plants). In addition, project construction and operation may indirectly impact the remaining 7% due to an increase in human use of the open space. Potential indirect impacts could include trampling of plants by pedestrians, compaction of soil, alteration of hydrology, disruption of pollinator network, herbicide usage, and non-native plant introduction. Direct and indirect impacts would be considered significant without mitigation.

Nipomo Mesa ceanothus is ranked CRPR 1B.2 (moderately threatened in California) and is endemic to San Luis Obispo County, only occurring in four USGS 7.5-minute quadrangles (Arroyo Grande NE, Nipomo, Oceano, and Pismo Beach) (CNPS 2021b). The Global rank of the species is vulnerable, but the variety is imperiled. This taxon was added to CRPR 1B.2 in June 2019 (CNPS 2021b). Proposed development would impact all of the Nipomo Mesa ceanothus plants in the project area (approximately 50 individuals). Due to the highly endemic nature of this taxon, the loss of habitat by the proposed project could potentially jeopardize the continued viability of this varietal. Without significant habitat preservation and mitigation, impacts to Nipomo Mesa ceanothus would be considered significant.

Sand mesa manzanita is ranked CRPR 1B.2 (moderately threatened in California) and is endemic to San Luis Obispo and Santa Barbara Counties. The Global and State rank of the species is imperiled. CNPS states that this manzanita is severely reduced on the Nipomo Mesa as a result of habitat conversion but is

more widespread on Burton Mesa in Santa Barbara County. It is threatened by habitat development, agriculture, road construction and maintenance, and oil extraction.

Proposed development would directly impact all but one sand mesa manzanita on the property (approximately 323 individuals). The single remaining sand mesa manzanita occurs within the proposed 21.9-acre open space area. Project construction and operation may result in indirect impacts to this individual. Indirect impacts may include an increase in human use of the open space, alteration of hydrology, light availability, dust, disruption of pollinator network, herbicide usage, and non-native species introduction. The loss of 323 individuals along with 129 acres of suitable habitat areas would be considered significant without mitigation.

BIO Impact 3 (Class II)	
The project could directly and indirectly impact mesa horkelia, Nipomo Mesa ceanothus, and sand mesa manzanita.	
Mitigation Measures	
Implement Mitigation Measures BIO/mm-1.1 through BIO/mm-1.6, BIO/mm 14.1, and BIO/mm 15.1.	
BIO/mm-3.1	<p>Mitigation for Plants Ranked 1B (Rare or Endangered) by the California Native Plant Society. Due to the highly endemic nature of the plant taxa being impacted and the loss of a significant portion of occupied habitat within their limited range, mitigation to offset impacts shall include a combination of preservation of existing populations either on- or off-site at a 1:1 ratio of individuals impacted to individuals preserved and the restoration of suitable habitat at a 2:1 ratio of individuals impacted to individuals restored. Prior to issuance of the grading permit, the applicant shall secure appropriate habitat with known populations of mesa horkelia, Nipomo Mesa ceanothus, and sand mesa manzanita and enough suitable habitat to reestablish 14,000 mesa horkelia, 100 Nipomo Mesa ceanothus, and 626 sand mesa manzanita.</p> <p>The applicant shall also prepare and begin implementation of a Habitat Mitigation and Monitoring Plan to preserve and expand patches of mesa horkelia, Nipomo Mesa ceanothus, and sand mesa manzanita on- and off-site. The Habitat Mitigation and Monitoring Plan shall be prepared by a qualified individual acceptable to the Director of Planning and Building and shall conform to California Native Plant Society mitigation guidelines (California Native Plant Society 1998). Habitat Mitigation and Monitoring Plan implementation must demonstrate a trajectory toward successful mitigation (i.e., meeting annual performance criteria) prior to occupancy of the last phase. To meet the County of San Luis Obispo's policy of No Net Loss, any enhanced and/or created habitat would need to confirm establishment of individuals and suitable/occupied habitat such that there is no net loss. Maintenance, monitoring, and reporting to the County of San Luis Obispo would be required until the enhanced/created habitat has successfully established individuals at the required 2:1 ratio.</p> <p>Measures within the Habitat Mitigation and Monitoring Plan shall include salvaging plant and seed material from impacted populations, habitat protection, herbicide avoidance, fencing, and propagation of pollinator plants appropriate to support native bees associated with pollination of these plants.</p> <p>Prior to grading, plant and seed material shall be salvaged and used to enhance or establish populations in protected habitat areas. This should include the excavation and relocation of the root burls of sand mesa manzanita where practical since they are known resprout from burls as well as from seed. The Habitat Mitigation and Monitoring Plan shall also establish a mitigation receptor site for the long term storage of salvaged material.</p> <p>In addition to direct habitat preservation, the applicant may also fund Public Benefit restoration efforts on conserved land to be implemented and monitored by organizations such as The Nature Conservancy, San Luis Obispo Land Conservancy, Greenspace, or Cambria Land Trust. The fee would be used to pay for mitigation planting, maintenance, and long-term monitoring in</p>

BIO Impact 3 (Class II)
<p><i>perpetuity. Material salvaged on-site should be incorporated into these mitigation planting efforts where possible.</i></p> <p><i>Measures to protect and expand mesa horkelia, Nipomo Mesa ceanothus, and sand mesa manzanita within protected oak woodland shall also be incorporated in the On-Site Oak Woodland Habitat Protection and Management Plan.</i></p>
<p>Residual Impacts</p>
<p><i>All three CRPR 1B taxa are highly endemic to the Central Coast, with Nipomo Mesa ceanothus only being known to occur in four USGS 7.5-minute quadrangles in southern San Luis Obispo County. The conversion of over 129 acres of occupied and suitable habitat within their limited range could potentially threaten the continued viability of these species. Based on a cursory assessment of remaining habitat areas within the range of the Nipomo Mesa ceanothus, there may not be a comparable block of occupied or suitable unoccupied habitat to preserve. Therefore, it is imperative to preserve an existing population of each species at a 1:1 ratio along with enough suitable unoccupied habitat to reestablish populations prior to issuance of the grading permit. Preservation of an existing population will offset the temporal loss incurred until the reestablishment component of the mitigation can be successfully implemented. This is imperative because it is not always possible to successfully reestablish rare plants (CNPS 1998). This combination of mitigation requirements will first prevent the extinction of the species and second allow reestablishment of populations to provide for a no net loss. With implementation of Mitigation Measures BIO/mm-1.1 through BIO/mm-1.6 and BIO/mm-3.1, which includes preservation of occupied habitat, and Mitigation Measures BIO/mm-14.1 and BIO/mm-15.1 for Burton Mesa chaparral and coast live oak woodland, direct and indirect impacts to mesa horkelia, Nipomo Mesa ceanothus, and sand mesa manzanita would be reduced to less than significant with mitigation (Class II).</i></p>

BIO Impact 4: The project could directly and indirectly impact CRPR 4 and Watch List plant species, including California spineflower, sand buck brush, and sand almond. Impacts would be significant and unavoidable (Class I).

Plant taxa ranked CRPR 4 are on a watch list, as they have limited distribution. Plants ranked CRPR 4.2 are moderately threatened in California and CRPR 4.3 are not very threatened. While CNPS cannot call these plants “rare” from a statewide perspective, they are uncommon enough that their status should be monitored regularly.

Should the degree of endangerment or rarity of a CRPR 4 plant change, CNPS will transfer it to a more appropriate list. Very few of the plants constituting CRPR 4 meet the definitions of Section 1901, Chapter 10 (NPPA) or Sections 2062 and 2067 (CESA) of the CFGC, and few, if any, are eligible for state listing. Nevertheless, many of them are significant locally, and CNPS recommends that CRPR 4 plants be evaluated for consideration during preparation of environmental documents relating to CEQA. This may be particularly appropriate for the type locality of a CRPR 4 plant, for populations at the periphery of a species' range, or in areas where the taxon is especially uncommon or has sustained heavy losses, or for populations exhibiting unusual morphology or occurring on unusual substrates. Populations of CRPR 4 plants on-site occur on the unusual substrate: Oceano sand.

For consistency in determining significance to CRPR 4 special-status plant species, where direct impacts cannot be avoided through redesign, the *Jack Ranch San Luis Obispo Agricultural Cluster Project Final EIR* (County of San Luis Obispo 2018) provides an example for this project. Project impacts affecting more than 10% of the population within the project area would be mitigated off-site at a minimum ratio of 1:1. The mitigation ratio applies to plant count and occupied habitat (at least one plant preserved/protected for every one plant impacted, and 1 acre preserved/protected for each occupied acre impacted) up to the significance threshold. This ratio is consistent with the Jack Ranch Final EIR, but still constitutes a net loss for the species; therefore, it is inconsistent with County COSE Policy BR 2.6.

California spineflower is ranked CRPR 4.2, which is considered to have a limited distribution and is vulnerable to habitat loss. The species' Global and State rank is "vulnerable." CNPS states that the plant is rare in southern California, but many of the herbarium records are old and may be extirpated. The species is threatened by aggregate mining, vehicles, flood control modification, urbanization, water percolation projects, and the spread of non-native plants.

Proposed development would permanently impact all California spineflower occurrences on the property (42.6 acres; approximately 807,500 individuals). Impacts to 100% of the California spineflower on-site exceed the 10% threshold described above and would potentially compromise a large portion of the known regional population. Due to the lack of information about the cultural requirements to successfully propagate this annual plant at a large scale, this impact may not be mitigable.

Sand buck brush is ranked CRPR 4.2, a taxon with limited distribution known only from San Luis Obispo and Santa Barbara Counties. The species' Global and State rank is "apparently secure." CNPS states that it is threatened by non-native plants but is also threatened by habitat development and agriculture. The proposed development could permanently impact all known sand buck brush plants on the property (20 individuals). Impacts to 100% of sand buck brush exceed the 10% threshold. Sand buck brush can be propagated and integrated into the landscape planting plan associated with coast live oak planting on-site and/or in off-site mitigation areas.

Sand almond is ranked CRPR 4.3, which is considered to have a limited distribution known only from San Luis Obispo and Santa Barbara Counties. Proposed development could permanently impact all sand almond occurrences on the property (141 individuals). Impacts to 100% of sand almond exceed the 10% threshold. Sand almond propagation is very difficult per Dave Fross of Native Sons Wholesale Nursery (personal communication to Althouse and Meade, October 9, 2019). A concerted effort can be made toward propagation and cultivation of this taxon within appropriate conserved habitat; however, it may not be successful, making this impact potentially unmitigable.

Michael's rein orchid is ranked CRPR 4.2, is a taxon with limited distribution, and is moderately threatened in California. The proposed development's open space includes the locations of all Michael's rein orchid plants observed in the project area (seven individuals). No direct impacts to this species are proposed in the project design. All individuals of Michael's rein orchid are located directly south of Pismo clarkia Patch 3 and within a few feet north of a side road/trail that stems west from project component "Collector B" (see Figures 4.4-8 and 4.4-9). Potential indirect impacts could include trampling of plants by pedestrians, compaction of soil, alteration of hydrology, disruption of pollinator network, herbicide usage, and non-native plant introduction. Impacts to this taxon are avoidable and plants may be preserved on-site.

Ten additional sensitive plant taxa were determined to have potential to occur in the project area. Surveys conducted during appropriate bloom times yielded negative results. Therefore, no impacts are proposed, and no species-specific mitigation measures are recommended.

BIO Impact 4 (Class I)
The project could directly and indirectly impact CRPR 4 and Watch List plant species, including California spineflower, sand buck brush, and sand almond.
Mitigation Measures
<i>Implement Mitigation Measures BIO/mm-1.1 through BIO/mm-1.6, BIO/mm 14.1, and BIO/mm 15.1.</i>

BIO Impact 4 (Class I)	
<i>BIO/mm-4.1</i>	<p>Mitigation for Plants Ranked CRPR 4 (Limited Distribution – Watch List) by the California Native Plant Society. Restoration and/or enhancement of 45 acres of conserved sandy habitat suitable for California spineflower, sand buck brush, and sand almond shall occur to mitigate for impacts at a 1:1 ratio above the 10% impact threshold. Prior to issuance of the grading permit, a plan to conserve and/or restore off-site habitat for California spineflower, sand buck brush, and sand almond shall be prepared. The plan shall be prepared by a qualified individual acceptable to the Director of Planning and Building and approved prior to implementation. The plan shall include purchase for conservation of land containing impacted species and/or restoration of approximately 45 acres of grassland habitat with high microsite suitability for California spineflower, sand buck brush, and sand almond. The plan shall conform to California Native Plant Society guidelines for mitigation (California Native Plant Society 1998). The applicant may fund Public Benefit restoration efforts on conserved land to be implemented and monitored by organizations such as The Nature Conservancy, San Luis Obispo Land Conservancy, Greenspace, or Cambria Land Trust. The funds would be used to pay for mitigation planting, maintenance, and long-term monitoring in perpetuity.</p> <p>Sand buck brush and sand almond shall be planted at a ratio over 1:1 to achieve a no-net loss after 5 years. California spineflower shall be seeded in grassland habitat managed by mowing or grazing in a manner than supports spineflower reproduction in normal rainfall years. Plant material shall be derived from sources on the Nipomo Mesa.</p> <p>Habitat protection and long-term maintenance shall be funded by an endowment sufficient to monitor and maintain habitat appropriate to attempt reestablishment or expansion of California spineflower on the restoration site.</p>
<i>BIO/mm-4.2</i>	<p>Michael’s Rein Orchid. Measures to avoid and protect Michael’s rein orchid in on-site oak woodland areas proposed for protection shall be incorporated into an on-site Habitat Mitigation and Monitoring Plan. Since all observed individuals of Michael’s rein orchid are located directly south of Pismo clarkia Patch 3, this species shall incidentally benefit from being included in Mitigation Measure BIO/mm 2.3. Construction workers and biological monitors shall also be made aware of and instructed to avoid this orchid during monitoring for Pismo clarkia (Mitigation Measures BIO/mm-2.1 and BIO-mm/2.2).</p>
Residual Impacts	
<p>Implementation of Mitigation Measures BIO/mm-1.1 through BIO/mm-1.6, BIO/mm-4.1, BIO/mm-4.2, BIO/mm 14.1, and BIO/mm 15.1 would reduce impacts to CRPR 4 and Watch List plant species, including California spineflower, sand buck brush, and sand almond. The 1:1 mitigation ratio is inconsistent with County COSE Policy BR 2.6 and constitutes a net loss for the species. In addition, there is a lack of information about the cultural requirements to successfully propagate California spineflower at a large scale and sand almond propagation is very difficult. Because of the infeasibility of successfully implementing this mitigation, residual impacts would be significant and unavoidable (Class I).</p>	

Special-Status Wildlife

Ten special-status animal species were detected in the project area during biological surveys. Nesting and special-status birds (Cooper’s hawk, oak titmouse, white-tailed kite, and Nuttall’s woodpecker) were detected throughout coast live oak woodland during site surveys. Blainville’s horned lizard was detected in open canopy coast live oak woodland. American badger dens were found in grassland habitat on-site. Four of the seven bat species observed on-site are CDFW SSC or Special Animals (pallid bat, silver-haired bat, hoary bat, and Yuma myotis). The project is likely to adversely affect special-status species. These impacts are discussed below by taxonomic group along with mitigation measures. Construction best practices to protect wildlife are included in Mitigation Measure BIO/mm 1.1 through BIO/mm-1.5.

Figure 4.4-10 illustrates the locations of impacts to wildlife resources from the project.

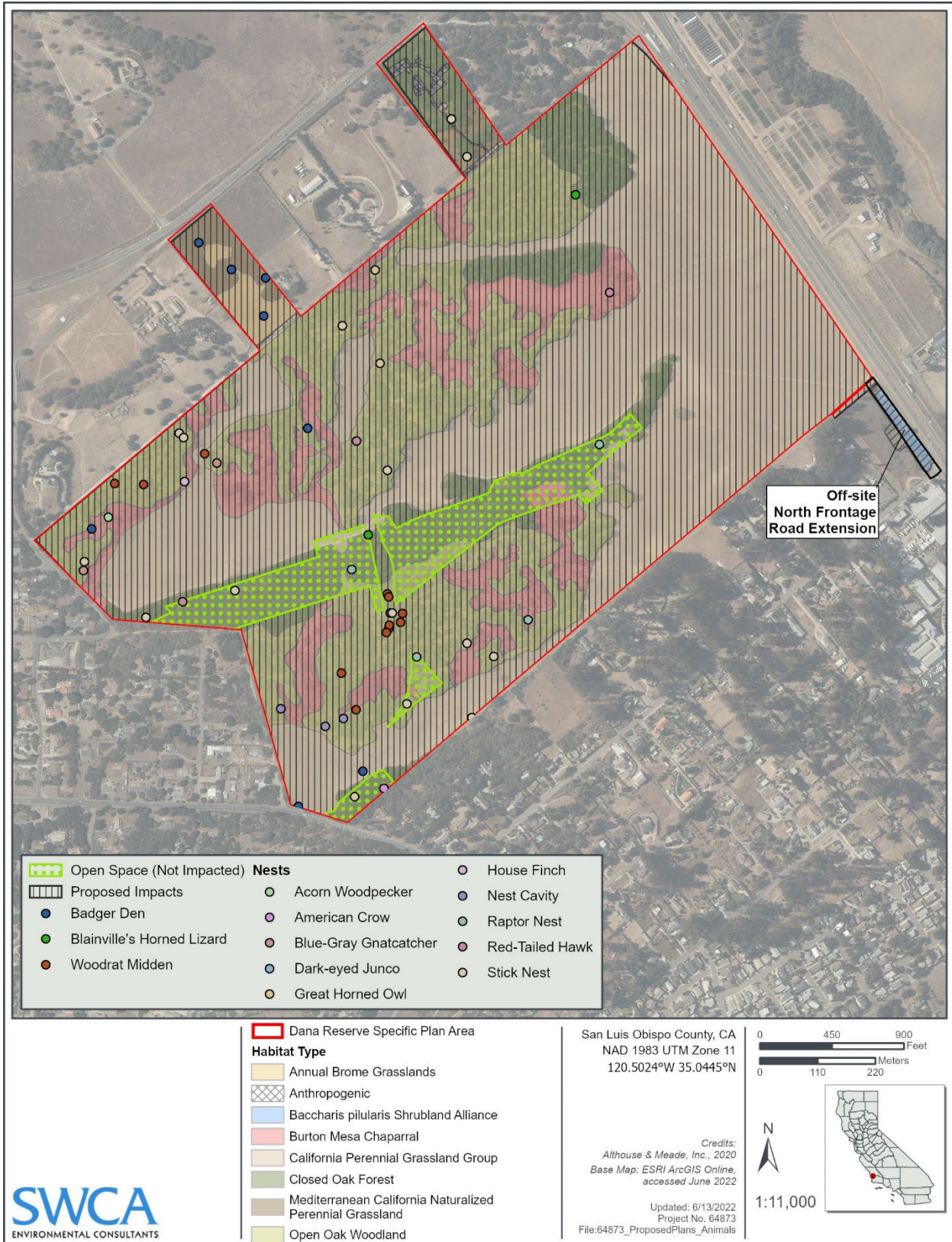


Figure 4.4-10. Proposed impacts: animals.

BIO Impact 5: The project could indirectly impact monarch butterflies. Impacts would be less than significant with mitigation (Class II).

The line of eucalyptus trees south and outside of the Specific Plan Area contains marginal habitat for aggregating monarch butterflies. The Specific Plan Area is not documented as harboring an aggregation of monarch butterflies, but the Nipomo Mesa is largely under-surveyed for monarch butterfly aggregations because most of the land is privately owned. Monarch butterflies require specific microclimatic conditions to survive the winter and are sensitive to any habitat modifications to their overwintering sites. If monarch butterflies were overwintering in the eucalyptus grove adjacent to the Specific Plan Area during construction, they could be indirectly impacted by construction noise and dust. Mitigation Measure BIO/mm-5.1 has been included below to ensure that monarch butterflies will not be impacted during construction activities.

BIO Impact 5 (Class II)	
The project could indirectly impact monarch butterflies.	
Mitigation Measures	
Implement Mitigation Measures BIO/mm-1.1 through BIO/mm-1.6.	
BIO/mm-5.1	Monarch Butterfly Preconstruction Survey. Site disturbance and construction activity adjacent to suitable monarch butterfly overwintering habitat shall be avoided during the monarch butterflies' fall and winter migration (late October through February) to the greatest extent feasible. If tree or vegetation removal or site disturbance is necessary during the monarch butterflies' fall and winter migration, a qualified biologist shall conduct a preconstruction survey for monarch butterflies that could utilize trees on the site for overwintering. If monarch butterflies are detected, development will be postponed until after the overwintering period or until a qualified biologist determines monarch butterflies are no longer utilizing the trees on site for overwintering.
Residual Impacts	
With implementation of Mitigation Measures BIO/mm-1.1 through BIO/mm-1.6 and BIO/mm-5.1, impacts to monarch butterflies would be less than significant with mitigation (Class II).	

BIO Impact 6: The project could directly and indirectly impact northern California legless lizards and Blainville's horned lizards. Impacts would be less than significant with mitigation (Class II).

Northern California legless lizard likely occurs in the project area's sandy soils, particularly in oak woodland habitat. Although surveys during 2020 did not detect legless lizards, their population numbers may be low. Project activities such as grading and other excavation could result in direct impacts, loss of habitat, and mortality. Direct and indirect impacts to northern California legless lizard would be *significant*.

Appropriate habitat for Blainville's (coast) horned lizard was identified on the property and two Blainville's horned lizards were observed during May 2018 and spring 2020 surveys on the edge of coast live oak woodland habitat. Loss of over 88% of suitable habitat would adversely affect this species. In addition, project activities such as grading and other excavation work would potentially result in direct impacts, habitat loss, and mortality. Indirect impacts related to development and resulting occupancy include pet depredation and introduction of invasive Argentine ants that outcompete native ants, the main

food resource for Blainville’s horned lizard. Direct and indirect impacts to Blainville’s horned lizard would be *significant*.

BIO Impact 6 (Class II)	
The proposed could directly and indirectly impact northern California legless lizards and Blainville’s horned lizards.	
Mitigation Measures	
Implement Mitigation Measures BIO/mm-1.1 through BIO/mm-1.6, BIO/mm-14.1, BIO/mm-15.1, and BIO/mm-18.4.	
BIO/mm-6.1	<p>Special-Status Reptiles Protection and Relocation. Prior to issuance of the grading permit, the project applicant shall develop a Special-status Reptile Relocation Plan for northern California legless lizard and Blainville’s (coast) horned lizard. The goal of the relocation plan is to establish guidelines and protocols for relocating special-status reptiles out of harm’s way. The relocation plan shall include an overview of prior surveys for the species, figures of known and potential habitat areas, timing of relocation efforts, and details regarding capture and relocation methods. Additionally, the relocation plan shall identify and characterize suitable on-site relocation sites for each species. The following details shall be specifically incorporated and expanded upon in the relocation plan:</p> <ol style="list-style-type: none"> 1. Relocation surveys for special-status reptiles shall be conducted during appropriate times of year when the species are active and can be located. Subject to expert refinement in the relocation plan, legless lizard cover board and raking surveys shall be conducted between January and July. Because legless lizards are not expected to move back into work areas after relocation, these surveys can be done well in advance of earthwork. Horned lizard surveys shall be conducted on warm days in April through August, immediately prior to commencement of earthwork. The relocation plan shall require a minimum of three surveys conducted during the time of year/day when each species is most likely to be observed. 2. Relocation surveys for legless lizards shall utilize a combination of cover boards and soil raking to find lizards in suitable habitat areas prior to commencement of earthwork activities. Relocation surveys for horned lizards shall be completed by pedestrian transects on warm days utilizing narrow spacing to visually search for lizards on the surface of the soil. Special-status reptiles shall be captured by hand, stored in suitable wildlife relocation bins, and immediately relocated to approved habitat. 3. The relocation plan shall identify suitable legless lizard relocation habitat as any sandy soil area with suitable leaf litter under shrub or oak tree canopy. For horned lizard, suitable relocation habitat shall be identified as that which has friable soils, a detectable prey source, and sandy barrens for burrowing and basking. 4. The Special-Status Reptile Relocation Plan shall be submitted to the County of San Luis Obispo and California Department of Fish and Wildlife for approval no less than 60 days prior to any ground-disturbing activities within potentially occupied habitat. 5. A qualified biologist shall be present during ground-disturbing activities immediately adjacent to or within habitat that supports special-status reptiles. 6. Clearance surveys for special-status reptiles shall be conducted by a qualified biologist prior to the initiation of ground-disturbing construction each day, especially along the interface between open space and construction areas. 7. Results of the surveys and relocation efforts shall be provided to the County of San Luis Obispo and California Department of Fish and Wildlife in the annual mitigation status report. Collection and relocation of animals shall only occur with the necessary scientific collection and handling permits.

BIO Impact 6 (Class II)
Residual Impacts
<i>With implementation of Mitigation Measures BIO/mm-1.1 through BIO/mm-1.6, BIO/mm-6.1, BIO/mm-14.1, BIO/mm-15.1, and BIO/mm-18.4, impacts to northern California legless lizard and Blainville’s horned lizard would be less than significant with mitigation (Class II).</i>

BIO Impact 7: The project could directly and indirectly impact special-status birds, raptors, and nesting birds. Impacts would be less than significant with mitigation (Class II).

Special-status birds and raptors, such as Cooper’s hawk, oak titmouse, white-tailed kite, and Nuttall’s woodpecker, may be adversely affected by the loss of nesting and foraging habitat in oak and chaparral habitats. Loss of grassland habitat could adversely affect foraging raptors and ground nesting birds. Incremental habitat loss on a regional scale may adversely affect special-status birds. These impacts would require mitigation as recommended to protect habitat off-site (see Mitigation Measures BIO/mm-14.1, BIO/mm-15.1, and BIO/mm-18.4).

The proposed development will affect common and special-status nesting birds by removing coast live oak woodland, perennial grassland, and Burton Mesa chaparral. Loss of coast live oak woodland particularly affects cavity nesting species, such as woodpeckers, wrens, northern flicker (*Colaptes auratus*), and oak titmouse, as well as canopy nesting species, such as raptors, Hutton’s vireo (*Vireo huttoni*), California scrub-jay (*Aphelocoma californica*), chestnut-backed chickadee (*Poecile rufescens*), western bluebird (*Sialia mexicana*), and tree swallow (*Tachycineta bicolor*). Two USFWS BCC identified in the project area could be adversely affected from oak woodland removal: Nuttall’s woodpecker and oak titmouse. The potential for habitat removal to adversely affect nesting birds can be reduced.

Migratory non-game native bird species are protected by international treaty under the MBTA (50 CFR Section 10.13). Sections 3503, 3503.5, and 3513 of the CFGC prohibit take (as defined therein) of all native birds and their active nests, including raptors and other migratory non-game birds (as listed under the federal MBTA). The following recommendations are intended to reduce potential impacts to nesting birds to a *less-than-significant level*.

BIO Impact 7 (Class II)
The project could directly and indirectly impact special-status birds, raptors, and nesting birds.
Mitigation Measures
<i>Implement Mitigation Measures BIO/mm-1.1 through BIO/mm-1.6, BIO/mm-14.1, BIO/mm-15.1, and BIO/mm-18.4.</i>
BIO/mm-7.1 Nesting Bird Preconstruction Survey and Nest Avoidance. <i>Within 1 week prior to ground-disturbing activities, if work occurs between February 1 and September 15, nesting bird surveys shall be conducted. If surveys do not locate nesting birds, construction activities may begin. If nesting birds are located, no construction activities shall occur within 100 feet of nests or within 500 feet of raptors until chicks have fledged. The project biologist may recommend a buffer decrease depending on site conditions (such as line-of-sight to the nest) and the birds’ level of tolerance for construction activities. The biologist shall collect data on the birds’ baseline behavior and their tolerance to disturbance by observing the birds at the nest prior to construction activities. If the birds are incubating, the biologist shall record how long they stay in the nest. If nestlings are present, the biologist shall record how frequently adults deliver food and</i>

BIO Impact 7 (Class II)
<i>visit the nest. The biologist shall also record the birds' reaction to the biologist and how close the biologist can get to the nest before the birds' behavior is altered or they show signs of stress or disturbance. The biologist shall set the reduced buffer distance based on these data. Nesting bird buffers may be reduced up to 50 feet, while raptor nest buffers may be reduced up to 250 feet. If nest buffers are reduced, the biologist shall monitor any construction activities that take place within 100 feet of nesting birds and 500 feet of raptor nests. If nesting birds show any signs of disturbance, including changes in behavior, significantly reducing frequency of nests visits, or refusal to visit the nest, the biologist will stop work and increase the nest buffer.</i>
Residual Impacts
<i>With implementation of Mitigation Measures BIO/mm-1.1 through BIO/mm-1.6, BIO/mm-7.1, BIO/mm-14.1, BIO/mm-15.1, and BIO/mm-18.4, impacts to nesting birds would be less than significant with mitigation (Class II).</i>

Special-Status Mammals

Loss of approximately 93% of available habitat on the property will adversely affect American badger, woodrat, sensitive bat species, and numerous common species, such as coyote (*Canis latrans*), black-tailed jackrabbit (*Lepus californicus*), and California ground squirrel through loss of available denning/roosting sites, reduction in prey base, loss of protective cover, predation by domestic animals (dogs and cats), increased vehicle traffic, and increased night light and noise. Direct impacts may be reduced with mitigation. Loss of habitat could adversely affect special-status mammals. Incremental habitat loss on a regional scale may adversely affect special-status mammals. These impacts would require mitigation as recommended to protect habitat off-site (see Mitigation Measures BIO/mm-14.1, BIO/mm-15.1, and BIO/mm-18.4).

BIO Impact 8: Project activities, including tree removal, have the potential to impact special-status bat species and roosting bats. Impacts would be less than significant with mitigation (Class II).

Four CDFW SSC/Special Animal bat species occur in the project area: pallid bat, silver-haired bat, hoary bat, and Yuma myotis. Two common bat species, California myotis and Mexican free-tailed bats, occur in the project area. These bats are known to roost in buildings, caves, rock outcrops, tree hollows, tree cavities, and tree canopies. There are a few structures with appropriate day roosting habitat on the northeast 7-acre parcel of the project area and suitable trees and snags with cavities are present. Significant impacts to special-status bats and maternal bat colonies can be avoided.

Roosting bats and/or maternal bat colonies may be present in trees and snags with appropriate cavities or loose bark. The breeding season for bats is from April to October. Project activities, including building/structure demolition, tree removal, grading, and other excavation work, could result in take of bat species or disturbance of bat roosts.

BIO Impact 8 (Class II)
Project activities, including tree removal, have the potential to impact special-status bat species and roosting bats.
Mitigation Measures
<i>Implement Mitigation Measures BIO/mm-1.1 through BIO/mm-1.6, BIO/mm-14.1, BIO/mm-15.1, and BIO/mm-18.4.</i>

BIO Impact 8 (Class II)	
BIO/mm-8.1	Bat Preconstruction Surveys and Passive Relocation. Within 30 days of construction between April and September, structures and trees or snags to be removed or pruned that are greater than 20 inches diameter at breast height shall be inspected for bats. If a bat roost is found, the qualified biologist shall implement passive relocation measures, such as installation of one-way valves. Bat maternity colonies may not be disturbed.
Residual Impacts	
With implementation of Mitigation Measures BIO/mm-1.1 through BIO/mm-1.6, BIO/mm-8.1, BIO/mm-14.1, BIO/mm-15.1, and BIO/mm-18.4, impacts to bats would be less than significant with mitigation (Class II).	

BIO Impact 9: The proposed project could directly impact American badger. Impacts would be less than significant with mitigation (Class II).

American badger occurs in the project area. Project activities, including grading and other excavation work, could result in impacts to American badger adults or young or disturbance of natal dens and abandonment by adult badgers. During the winter, badgers do not truly hibernate but are inactive and asleep in their dens for several days at a time. Because they can be torpid during the winter, they are vulnerable to disturbances that may collapse their dens before they rouse and emerge. Therefore, surveys shall be conducted for badger dens throughout the year.

BIO Impact 9 (Class II)	
The proposed project could directly impact American badger.	
Mitigation Measures	
Implement Mitigation Measures BIO/mm-1.1 through BIO/mm-1.6, BIO/mm-14.1, BIO/mm-15.1, and BIO/mm-18.4.	
BIO/mm-9.1	<p>Badger Den Preconstruction Survey and Relocation. Preconstruction surveys shall be conducted within 30 days of beginning work on the site to identify if badgers are using proposed work areas. Survey results shall be submitted to the County with monthly construction update reports.</p> <p>If suitable American badger dens are identified within the disturbance footprint, den openings shall be monitored with tracking medium or an infrared camera for 3 consecutive nights to determine current use. If the den is not in use, the den shall be excavated and collapsed to ensure that no animals are present during construction. If the den is occupied during the non-maternity period and avoidance is not feasible, badgers may be relocated by first incrementally blocking the den over a 3-day period, followed by slowly excavating the den (either by hand or with mechanized equipment under the direct supervision of a qualified biologist, removing no more than 4 inches at a time) before or after the rearing season (February 15–June 30). Passive relocation of American badgers shall be conducted under the direction of a qualified biologist.</p> <p>If the preconstruction survey finds potential badger dens, the dens shall be inspected by the project biologist to determine whether they are occupied. If a potential badger den is too long to completely inspect from the entrance, a fiber optic scope may be used to examine the den to the end. Inactive dens may be excavated by hand with a shovel to prevent reuse of dens during construction. If badgers occupy active dens in proposed work areas between February and July, nursing young may be present.</p> <p>To avoid disturbance and the possibility of direct impacts to adults and nursing young, and to prevent badgers from becoming trapped in burrows during construction activity, American badger dens determined to be occupied during the breeding season (February 15–June 30) shall be flagged. Between February and July, no grading or ground-disturbing activities shall</p>

BIO Impact 9 (Class II)
<p><i>occur within 100 feet of active badger dens to protect adults and nursing young. Buffers may be modified by the qualified biologist, provided the badgers are protected, and buffers only removed after the qualified biologist determines that the den is no longer in use.</i></p> <p><i>If a potential den is located outside of the disturbance footprint but within 500 feet of ground-disturbing activities (including staging areas), dens shall be avoided by installation of highly visible orange construction fencing a minimum of 100 feet from the den, designating the area an Environmentally Sensitive Area. Fencing shall be installed in a manner that allows badgers to move through the fencing at-will. No equipment, vehicles, or personnel shall be permitted within Environmentally Sensitive Areas without clear permission from a qualified biologist.</i></p>
Residual Impacts
<p><i>With implementation of Mitigation Measures BIO/mm-1.1 through BIO/mm-1.6, BIO/mm-9.1, BIO/mm-14.1, BIO/mm-15.1, and BIO/mm-18.4, impacts to American badger would be less than significant with mitigation (Class II).</i></p>

Off-Site Improvements

North Frontage Road Extension Parcel

BIO Impact 10: The development of the North Frontage Road Extension Parcel could directly or indirectly impact special-status plant and wildlife species. Impacts would be less than significant with mitigation incorporated (Class II).

All temporary and permanent impacts of the proposed improvements will occur on the eastern edge of the North Frontage Road Extension Parcel within APN 091-325-022 and the Caltrans ROW. Permanent impacts include a 0.86-acre area, which accounts for an expanded width of the access road and the extension of an existing culvert to the US 101 southbound culvert. There will be an additional 0.64 acre of land temporarily impacted, including an approximate 0.18-acre temporary retention basin. Table 4.4-9 displays the temporary and permanent impacts by habitat type. Within the other habitat types, 0.14 acre of willow canopy exists, of which 0.12 acre will be permanently impacted.

Table 4.4-9. Habitat Impacts from the Project to the North Frontage Road Extension Parcel

Habitat Type (State Rank)	Impact (acres)	Preserved (acres)	Total (acres)
Mediterranean California naturalized perennial grassland group	0.81	0.590	1.4
Coyote brush scrub	0.05	0.05	0.10
Total	0.86	0.64	1.5

Due to the adjacency of the North Frontage Road Extension Parcel to the Specific Plan Area, maritime climate, and sandy soil conditions, the parcel potentially provides suitable habitat to the same special-status species. Project activities, including tree removal, grading, demolition, utility installation, paving, etc., could result in impacts to special-status species and their habitat. Direct impacts could include trampling, being exposed to predation, being collected, being entombed, and loss of habitat. Indirect impacts could include stress and loss of reproductive success among relocated individuals, excessive noise resulting in site or nest abandonment, increased human activity resulting in changes to wildlife

movement and behaviors, increased vehicle use of the area exacerbating road kills, or introduction of invasive plant species that could change habitat conditions to open space preserved on-site.

Impacts to special-status species that may occur on the North Frontage Road Extension Parcel shall be mitigated for by following the same mitigation measures outlined above for the Specific Plan Area. With implementation of Mitigation Measures BIO/mm-1.1 through BIO/mm-9.1, impacts will be *less than significant with mitigation*.

BIO Impact 10 (Class II)
The development of the North Frontage Road Extension Parcel could directly or indirectly impact special-status plant and wildlife species.
Mitigation Measures
<i>Implement Mitigation Measures BIO/mm-1.1 through BIO/mm-1.6, BIO/mm-2.1 through BIO/mm-2.3, BIO/mm-3.1, BIO/mm-4.1 and 4.2, BIO/mm-5.1, BIO/mm-6.1, BIO/mm-7.1, BIO/mm-8.1, and BIO/mm-9.1.</i>
Residual Impacts
<i>With implementation of Mitigation Measures BIO/mm-1.1 through BIO/mm-1.6, BIO/mm-2.1 through BIO/mm-2.3, BIO/mm-3.1, BIO/mm-4.1 and 4.2, BIO/mm-5.1, BIO/mm-6.1, BIO/mm-7.1, BIO/mm-8.1, and BIO/mm-9.1, potential impacts to special-status plant and wildlife species would be less than significant with mitigation (Class II).</i>

Off-Site Improvements

Based on the analysis of special-status wildlife species, the following special-status wildlife species may be directly or indirectly impacted by the construction of the off-site transportation, water, and wastewater improvements:

- Monarch butterfly
- Sharp-shinned hawk
- Cooper’s hawk
- White-tailed kite
- Nesting birds
- Southwestern willow flycatcher
- Least Bell’s vireo
- California red-legged frog
- Western pond turtle
- Two-striped gartersnake

Impacts to these species shall be mitigated for by following the same mitigation measures outlined above for the Specific Plan Area and some additional species-specific measures. These impacts and measures are further detailed below.

BIO Impact 11: Off-site transportation, water, and wastewater improvements could directly or indirectly impact monarch butterfly, sharp-shinned hawk, Cooper’s hawk, white-tailed kite, and other nesting birds. Impacts would be less than significant with mitigation (Class II).

Impacts to monarch butterfly, sharp-shinned hawk, Cooper’s hawk, white-tailed kite, and other nesting birds shall be mitigated for by following the same mitigation measures outlined above for the Specific Plan Area. With the application of mitigation measures BIO/mm 1 through BIO/mm-1.6, BIO/mm-2.1

through BIO/mm-2.3, BIO/mm-3.1, BIO/mm-4.1 and 4.2, BIO/mm-5.1, BIO/mm-6.1, BIO/mm-7.1, BIO/mm-8.1, BIO/mm-9.1, and BIO/mm-12.1, impacts will be *less than significant with mitigation*.

BIO Impact 11 (Class II)
Off-site transportation, water, and wastewater improvements could directly or indirectly impact monarch butterfly, sharp-shinned hawk, Cooper's hawk, white-tailed kite, and other nesting birds.
Mitigation Measures
<i>Implement Mitigation Measures BIO/mm 1 through BIO/mm-1.6, BIO/mm-2.1 through BIO/mm-2.3, BIO/mm-3.1, BIO/mm-4.1 and 4.2, BIO/mm-5.1, BIO/mm-6.1, BIO/mm-7.1, BIO/mm-8.1, BIO/mm-9.1, and BIO/mm-12.1.</i>
Residual Impacts
<i>With implementation of Mitigation Measures BIO/mm 1 through BIO/mm-1.6, BIO/mm-2.1 through BIO/mm-2.3, BIO/mm-3.1, BIO/mm-4.1 and 4.2, BIO/mm-5.1, BIO/mm-6.1, BIO/mm-7.1, BIO/mm-8.1, BIO/mm-9.1, and BIO/mm-12.1, potential impacts to special-status wildlife species would be less than significant (Class II).</i>

BIO Impact 12: Off-site NCSW water improvements could directly or indirectly impact California red-legged frog, western pond turtle, and two-striped gartersnake. Impacts would be less than significant with mitigation incorporated (Class II).

Potentially suitable breeding, foraging, and aquatic dispersal habitat is present for California red-legged frog within the riparian habitat of Nipomo Creek and the other streams along the waterline alignment. If this species is present during construction activities, the proposed project could result in direct impacts to this species in the form of injury or mortality resulting from the use and movement of construction equipment and workers within suitable riparian habitat. Potential indirect impacts to this species could also occur during construction activities in the form of temporary habitat modification resulting from ground-disturbing activities for the placement of project infrastructure. Long-term operational impacts to this species would not occur as a result of the proposed project. Implementation of mitigation measures provided below would avoid and/or minimize potential construction-related impacts to this species if present within the project area.

Western pond turtle and two-striped gartersnake have the potential to occur within and adjacent to Nipomo Creek and its tributaries within the project area. If present during construction activities, the project could result in direct and indirect impacts to these species. Implementation of mitigation measures would ensure that potential construction impacts to these species, if present when construction activities commence, would be *less than significant*. The project would not result in long-term operational impacts to these species.

BIO Impact 12 (Class II)
Off-site NCSW water improvements could directly or indirectly impact California red-legged frog, western pond turtle, and two-striped gartersnake.
Mitigation Measures
<i>Implement Mitigation Measures BIO/mm-1.1 through BIO/mm-1.6.</i>

BIO Impact 12 (Class II)	
BIO/mm-12.1	<p>California Red-Legged Frog, Western Pond Turtle, and Two-Striped Gartersnake Surveys and Relocation. All work areas within 100 feet of known California red-legged frog habitat shall be surveyed by a qualified biologist each day prior to the initiation of construction activities. As necessary, the qualified biologist shall physically relocate semiaquatic, special-status species (e.g., western pond turtle, two-striped gartersnake, etc.) and common semi-aquatic species (e.g., western toad, Pacific chorus frog, etc.) to suitable habitat areas located outside the construction zone(s). Exact procedures and protocols for relocation of the special-status species shall be based upon pre-project consultation with the California Department of Fish and Wildlife. In the event a California red-legged frog is identified in a work area, all work shall cease until the California red-legged frog has safely vacated the work area. At no time shall any California red-legged frog be relocated and/or affected by project operations without prior approval from the U.S. Fish and Wildlife Service.</p>
Residual Impacts	
<p>With implementation of Mitigation Measures BIO/mm-1.1 through BIO/mm-1.6 and BIO/mm-12.1, potential impacts to California red-legged frog, western pond turtle, and two-striped gartersnake would be less than significant (Class II).</p>	

BIO Impact 13: Off-site NCS D water improvements could directly or indirectly impact least Bell’s vireo and southwestern willow flycatcher. Impacts would be less than significant with mitigation incorporated (Class II).

Although unlikely, least Bell’s vireo and southwestern willow flycatcher have the potential to occur within the riparian corridor of Nipomo Creek; therefore, presence is inferred. The project would not require tree or significant vegetation removal and would not result in impacts to known nest sites. Therefore, direct impacts to potential nesting habitat would not occur as a result of the proposed project. Indirect impacts to least Bell’s vireo and southwestern willow flycatcher, if present, could occur during the installation of the waterline extension in the form of noise pollution and construction activities. Mitigation Measure BIO/mm-13.1 is included, in conjunction with BIO/mm-7.1, to ensure that potential indirect impacts to least Bell’s vireo and southwestern willow flycatcher would be *less than significant*.

BIO Impact 13 (Class II)	
Off-site NCS D water improvements could indirectly impact least Bell's vireo and southwestern willow flycatcher.	
Mitigation Measures	
Implement Mitigation Measures BIO/mm-1.1 through BIO/mm-1.6 and BIO/mm-7.1.	
BIO/mm-13.1	<p>Nesting Bird Surveys. If construction activities are proposed during the typical nesting bird season (February 1–September 15), a nesting bird survey will be conducted by qualified biologists no more than 2 weeks prior to the start of construction to determine presence/absence of nesting birds within the project area and immediate vicinity (within 100 feet of the Nipomo Creek corridor). The County of San Luis Obispo will be notified if federally listed nesting bird species are observed during the surveys and Nipomo Community Services District will be responsible for facilitating coordination with the U.S. Fish and Wildlife Service, if necessary, to determine an appropriate avoidance strategy. Likewise, coordination with the California Department of Fish and Wildlife will be facilitated by the Nipomo Community Services District if necessary to devise a suitable avoidance plan for state-listed nesting bird species.</p>

BIO Impact 13 (Class II)
Residual Impacts
<i>With implementation of Mitigation Measures BIO/mm-1.1 through BIO/mm-1.6, BIO/mm-7.1, and BIO/mm-13.1, potential impacts to least Bell's vireo and southwestern willow flycatcher would be less than significant (Class II).</i>

WOULD THE PROJECT HAVE A SUBSTANTIAL ADVERSE EFFECT ON ANY RIPARIAN HABITAT OR OTHER SENSITIVE NATURAL COMMUNITY IDENTIFIED IN LOCAL OR REGIONAL PLANS, POLICIES, REGULATIONS OR BY THE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE OR U.S. FISH AND WILDLIFE SERVICE?

Specific Plan Area

BIO Impact 14: The project will directly impact Burton Mesa chaparral. Impacts would be significant and unavoidable (Class I).

Approximately 36 acres of the 288-acre project area (12.5%) is Burton Mesa chaparral (*Arctostaphylos [purissima, rudis]* Shrubland Special Stands). This habitat has been subjected to periodic mowing since at least the 1930s and is currently in poor condition, with less than 2% cover of constituent species (i.e., sand mesa manzanita). However, with the recent cessation of those land management practices, plants are beginning to regenerate from underground root burls. The proposed development would remove 35 acres (approximately 97%) and preserve 1 acre (approximately 3%) of this habitat on-site. The Burton Mesa chaparral regularly integrates with the coast live oak woodland and transitions into California perennial grassland. This diverse habitat matrix supports a unique assemblage of plant species, including six special-status plants: mesa horkelia, sand mesa manzanita, California spineflower, Nipomo Mesa ceanothus, sand buck brush, and sand almond. The Burton Mesa chaparral alliance has a Global/State rank of G1/S1 and is considered critically imperiled. Therefore, loss of almost all (approximately 97%) Burton Mesa chaparral habitat would be significant, and mitigation is necessary to reduce project impacts.

Under the current project design, on-site mitigation opportunities are limited. In addition, Burton Mesa chaparral is a fire prone and fire dependent natural community, achieving its highest species diversity following fires (CDFG 2007). Unfortunately, incorporating fire, in the form of controlled burns, as a habitat management tool to maintain species diversity is challenging in an urban setting. Given this management constraint, off-site conservation of Burton Mesa chaparral would be the best option to offset significant impacts. However, due to the limited range of this vegetation type and the limited availability of off-site mitigation parcels, implementing off-site mitigation may also not be feasible.

Due to the lack of off-site mitigation opportunities, the applicant has reevaluated potential on-site mitigation options. One proposed plan reestablishes small patches of Burton Mesa chaparral in native gardens around the periphery of the proposed development (See EIR Appendix E). These smaller isolated patches do not provide the same habitat value as what is currently on-site, even when considering the degraded nature of the natural community. This is because it is the combined habitat matrix of Burton Mesa chaparral, coast live oak woodland, and California perennial grassland that supports the special-status plant and wildlife species that are present. If plants established in native gardens are propagated from material and seed salvaged on site, then they would be beneficial in maintaining the genetic diversity of the rare plant species that comprise the constituent elements of Burton Mesa chaparral. Because offsite mitigation parcels are currently unavailable and on-site mitigation options do not provide

the same habitat value as the habitat being removed, potential impacts would be *significant and unavoidable*.

BIO Impact 14 (Class I)	
The project will directly impact Burton Mesa chaparral.	
Mitigation Measures	
Implement Mitigation Measure BIO/mm-3.1.	
BIO/mm-14.1	<p>Mitigation for Burton Mesa Chaparral (Arctostaphylos [purissima, rudis] Shrubland Special Stands). Prior to issuance of the Conditional Use Permit for Oak Tree Removal and Grading/Impervious Surfaces, the applicant shall permanently protect (conserve), enhance (increase suitability of a site as habitat), and/or restore (repair damaged habitat) Burton Mesa chaparral in maritime coastal California at a 2:1 ratio of habitat preserved to habitat lost. This ratio will achieve the “no-net loss” requirement in County of San Luis Obispo Conservation and Open Space Element Policy BR 1.4 of the County of San Luis Obispo Conservation and Open Space Element. Habitat appropriate for restoration will ideally be located on the Nipomo Mesa with climatic and soil conditions that match those found on Dana Reserve.</p> <p>Conservation/enhancement/restoration of habitat areas contiguous with protected/restored Quercus agrifolia / Adenostoma fasciculatum – (Salvia mellifera) habitat shall be prioritized over isolated patches of mitigation. Areas contiguous with other protected maritime chaparral or oak woodland shall also be prioritized over isolated patches of mitigation. Where restoration is proposed, a restoration and enhancement plan approved by the California Department of Fish and Wildlife shall be submitted to the County prior to issuance of the Conditional Use Permit for Oak Tree Removal and Grading/Impervious Surfaces. A conservation easement over protected habitat shall be controlled by a qualified conservation organization approved by the County. Potential conservation organizations include, but are not limited to, The Nature Conservancy, San Luis Obispo Land Conservancy, Greenspace, Cambria Land Trust, or the California Department of Fish and Wildlife. The County of San Luis Obispo shall review and approve additional analysis prior to final approval of any proposed conservation area.</p> <p>If appropriate habitat is not available in San Luis Obispo County at a 2:1 ratio, the applicant may fulfill half of this mitigation requirement through restoring Burton Mesa chaparral in Santa Barbara County at an additional 2:1 ratio (e.g., if only 35 acres can be preserved/restored within San Luis Obispo County, then an additional 70 acres would be required to satisfy the mitigation if purchased in Santa Barbara County).</p> <p>A combination of preservation and restoration at a 2:1 ratio would allow for a no-net-loss of cover by Burton Mesa chaparral constituent elements and maintain species diversity within the county.</p>
Residual Impacts	
<p>With implementation of Mitigation Measures BIO/mm-3.1 and BIO/mm-14.1, impacts to Burton Mesa chaparral would be mitigated. However, due to the limited range of this vegetation type and the limited availability of off-site mitigation parcels, implementation may not be feasible. The applicant is proposing to establish Burton Mesa chaparral in native gardens around the periphery of the proposed development, which could total between 10 to 15 acres of on-site mitigation. However, these smaller isolated patches do not provide the same habitat value as what is currently onsite. This is because it is the combined habitat matrix of Burton Mesa chaparral, coast live oak woodland and California perennial grassland that supports the special-status plant and wildlife species that are present. It is also significantly less than the 70 acres of habitat needed to fully offset impacts. Given the limited availability of off-site mitigation parcels and the limited on-site opportunities to restore and maintain the ecological integrity of this ecosystem, potential impacts would be significant and unavoidable (Class I).</p>	

BIO Impact 15: The project will directly impact coast live oak woodland. Impacts would be significant and unavoidable (Class I).

Approximately 78.3 acres of the project area consists of coast live oak woodland. The proposed development will remove 75.3 acres (approximately 96%) and preserve 3 acres (approximately 4%) of this habitat on-site. The *Quercus agrifolia* / *Adenostoma fasciculatum* – (*Salvia mellifera*) alliance has a Global/State rank of G3/S3 and is considered a sensitive natural community by the CDFW (CDFW 2021b). Therefore, loss of almost all (approximately 96%) *Quercus agrifolia* / *Adenostoma fasciculatum* – (*Salvia mellifera*) habitat would be considered significant, and mitigation is necessary to reduce project impacts. On-site mitigation opportunities are limited; therefore, off-site conservation and restoration would be required to fully mitigate for project impacts.

County COSE Policy BR 3.3.1 requires the maintenance of the integrity and diversity of oak woodlands, chaparral communities, and other significant vegetation as part of the compliance with the Oak Woodlands Preservation Act (PRC Section 21083.4). The coast live oak woodland in the project area regularly integrates with the Burton Mesa chaparral. The main difference between the designation of Burton Mesa chaparral and coast live oak woodland is that the canopy threshold of coast live oak trees does not exceed 20% absolute cover. Other than this, these two vegetation communities are virtually identical in terms of species composition. Many of the species described within Burton Mesa chaparral are also present in coast live oak woodland and vice versa. These two vegetation communities, along with the coast live oak forest and California native perennial grassland, create a habitat matrix that, when left intact, supports a wide range of native and special-status species. Specifically, this diverse habitat supports a unique assemblage of nine special-status plants, most of which are highly endemic to coastal communities in San Luis Obispo and Santa Barbara Counties. In order to maintain the diversity of oak woodlands in the County, per County COSE Policy BR 3.3.1, mitigation for coast live oak woodlands should occur adjacent to the conservation/restoration of Burton Mesa chaparral on sites with sandy soil conditions suitable to support the special-status plant species that occur in the project area. This would effectively maintain and/or recreate the habitat matrix that supports the unique assemblage of species that would be lost as a result of the proposed project. However, implementation of this mitigation may not be feasible; therefore, potential impacts would be *significant and unavoidable*.

BIO Impact 15 (Class I)	
The project will directly impact coast live oak woodland.	
Mitigation Measures	
Implement Mitigation Measures BIO/mm-3.1 and BIO/mm-18.1 through BIO/mm-18.4.	
BIO/mm-15.1	Off-Site Mitigation for Coast Live Oak Woodland (<i>Quercus agrifolia</i> / <i>Adenostoma fasciculatum</i> – [<i>Salvia mellifera</i>]). Prior to issuance of the Conditional Use Permit for Oak Tree Removal and Grading/Impervious Surfaces, the applicant shall permanently protect (conserve), enhance (increase suitability of a site as habitat), restore (repair damaged habitat), and/or recreate (revegetate previously lost habitat) <i>Quercus agrifolia</i> / <i>Adenostoma fasciculatum</i> – (<i>Salvia mellifera</i>) in coastal California at a 2:1 ratio within the range of Burton Mesa chaparral. This ratio will achieve the “no-net loss” requirement in County of San Luis Obispo Conservation and Open Space Element Policy BR 1.4 of the County of San Luis Obispo Conservation and Open Space Element. Conservation/enhancement/recreation of habitat areas shall be contiguous with mitigation for Burton Mesa chaparral. A combined approach for habitat mitigation shall include the preservation of expanded contiguous habitat of protected <i>Quercus agrifolia</i> / <i>Adenostoma fasciculatum</i> – (<i>Salvia mellifera</i>), recreate, restore, and/or enhance contiguous areas of <i>Quercus agrifolia</i> / <i>Adenostoma fasciculatum</i> – (<i>Salvia mellifera</i>). However, to comply with Senate Bill 1334, only half the mitigation requirement for loss of coast live oak can be achieved through recreation. Where restoration is proposed, a restoration and

BIO Impact 15 (Class I)
<p><i>enhancement plan approved by the California Department of Fish and Wildlife shall be submitted to the County prior to issuance of the grading permit. A conservation easement over protected habitat shall be controlled by a qualified conservation organization approved by the County of San Luis Obispo. Potential conservation organizations include, but are not limited to, The Nature Conservancy, San Luis Obispo Land Conservancy, Greenspace, Cambria Land Trust, or the California Department of Fish and Wildlife. The County of San Luis Obispo shall review and approve additional analysis prior to final approval of the proposed off-site conservation area.</i></p> <p><i>Preservation and recreation would allow for a no-net-loss of cover by Quercus agrifolia / Adenostoma fasciculatum – (Salvia mellifera) constituent elements and preserve the diversity of oak woodland habitats in the County consistent with County of San Luis Obispo Conservation and Open Space Element Policy BR 3.3.1.</i></p>
<p>Residual Impacts</p>
<p><i>With implementation of Mitigation Measures BIO/mm-3.1 and BIO/mm-15.1, in conjunction with BIO/mm-18.1 through BIO/mm-18.4, impacts to coast live oak woodlands on-site would be mitigated. However, it is currently unknown whether it would be feasible to locate and preserve coast live oak woodland within the range of Burton Mesa chaparral, as required by Mitigation Measure BIO/mm-15.1, because that combination of habitats is not a common occurrence. Therefore, due to the potential infeasibility of mitigation, residual impacts would be significant and unavoidable (Class I).</i></p>

Off-Site Improvements

North Frontage Road Extension Parcel

No sensitive habitats were mapped on the North Frontage Road Extension Parcel (Althouse and Meade 2022b); therefore, there will be *no impact* to sensitive habitats.

Off-Site Improvements

BIO Impact 16: Off-site NCS D water improvements could directly and indirectly impact riparian habitat and sensitive aquatic resources. Impacts would be less than significant with mitigation (Class II).

The proposed new waterline along North Oakglen Avenue runs parallel to the riparian areas of Nipomo Creek, with the boundaries of riparian habitat in some areas abutting the road. In addition, the installation of an upgraded waterline along East Tefft Street would require crossing Nipomo Creek and three other creek crossings.

BIO Impact 16 (Class II)
<p>Off-site NCS D water improvements could directly and indirectly impact riparian habitat and sensitive aquatic resources.</p>
<p>Mitigation Measures</p>
<p>Implement Mitigation Measures BIO/mm-1.1 through BIO/mm-1.6 and BIO/mm-11.1.</p>
<p>BIO/mm-16.1 Riparian Habitats. <i>The following measures shall be implemented for any grubbing, grading, and other ground-disturbing activities conducted within 100 feet of riparian habitat along Nipomo Creek or its tributaries to avoid potential project-related impacts to these resources and special-status species that may utilize these habitats:</i></p>

BIO Impact 16 (Class II)
<ol style="list-style-type: none"> 1. All construction-related activities must observe a 100-foot setback from the Nipomo Creek riparian corridor, as measured from the outer edge of the riparian canopy. A minimum 50-foot setback shall be observed from the ephemeral drainages and flood channels, as measured from the outer edge of riparian vegetation. 2. If construction-related activities within the 100- or 50-foot buffers from Nipomo Creek or any other surface water resource, to the extent practicable, construction activities shall be conducted during the dry season (typically May 1–November 1), or as specified by resource agency permits and authorizations. This would reduce potential impacts to aquatic and semi-aquatic species that might be using the aquatic habitat and associated riparian vegetation as a movement/dispersal corridor. 3. Any construction activities conducted within 50 feet of Nipomo Creek, watercourses, pond, and riparian habitat shall be monitored by a qualified biologist. 4. If any special-status species are observed, the qualified biologist shall implement the measures described in BIO/mm-1.1 through BIO/mm 1.6 and BIO/mm-11.1.
Residual Impacts
<i>With implementation of Mitigation Measures BIO/mm-1.1 through BIO/mm-1.6, BIO/mm-11.1, and BIO/mm-16.1, impacts to riparian and other aquatic habitat areas would be less than significant (Class II).</i>

WOULD THE PROJECT HAVE A SUBSTANTIAL ADVERSE EFFECT ON STATE OR FEDERALLY PROTECTED WETLANDS (INCLUDING, BUT NOT LIMITED TO, MARSH, VERNAL POOL, COASTAL, ETC.) THROUGH DIRECT REMOVAL, FILLING, HYDROLOGICAL INTERRUPTION, OR OTHER MEANS?

Specific Plan Area

No evidence of potentially jurisdictional wetlands or waters were observed in the Specific Plan Area during the 2017 to 2020 surveys (Althouse and Meade 2022a). The very deep, excessively drained sandy soils of these ancient dunes have rapid permeability with low water capacity. The USFWS NWI shows wetlands east of US 101 and on property north of Willow Road and east of Hetrick Avenue (see Figure 4.4-7). Therefore, there will be *no impact* to federally protected wetlands.

Off-Site Improvements

North Frontage Road Extension Parcel

No evidence of potentially jurisdictional wetlands or waters were observed on the North Frontage Road Extension Parcel (Althouse and Meade 2022b). Therefore, there will be *no impact* to federally protected wetlands.

Off-Site Improvements

BIO Impact 17: Off-site NCSD water improvements will directly and indirectly impact aquatic habitats under the jurisdiction of the USACE, CDFW, and RWQCB. Impacts would be less than significant with mitigation (Class II).

Improvements to the water supply system will require work either over or under Nipomo Creek and at three additional creek crossings on tributaries to Nipomo Creek (see Figure 4.4-7). Based on personal communications with Peter Sevcik, Director of Engineering and Operations at NCSD, the updated pipeline will be installed underneath the creeks using the method of horizontal directional drilling (HDD).

Even though work directly in the channels will be avoided using this method, temporary or indirect impacts to aquatic resources may result from HDD operations without proper mitigation measures. These could include impacts from heavy equipment operation, temporary materials staging, and, in the worst-case scenario, contamination of the streambed in the event of a “frac-out.” Therefore, the construction of the proposed improvements to the water pipeline could result in direct adverse impacts to sensitive habitats, including areas under jurisdiction of regulatory agencies, such as the USACE, CDFW, and RWQCB. Implementation of mitigation measures to avoid or minimize impacts to sensitive aquatic habitats would result in a *potentially significant, but mitigable impact*.

BIO Impact 17 (Class II)	
Off-site NCSD water improvements will directly and indirectly impact aquatic habitats under the jurisdiction of the USACE, CDFW, and RWQCB.	
Mitigation Measures	
<i>BIO/mm-17.1</i>	Wetland Delineation. <i>Prior to construction in any undeveloped area where surface water resources or wetland indicators are present, the Nipomo Community Services District shall retain a qualified biologist to conduct a wetland delineation along the proposed alignment route, including at minimum a 50-foot buffer area and a 100-foot buffer along the Nipomo Creek riparian corridor.</i>
<i>BIO/mm-17.2</i>	<i>Prior to construction within 50 feet of any stream or other surface water resource, the Nipomo Community Services District shall prepare project-specific plans for crossings. If construction activities require any earthwork within the banks of the drainages (including beneath the bed of the channel), the Nipomo Community Services District shall coordinate with the U.S. Army Corps of Engineers, California Department of Fish and Wildlife, and Regional Water Quality Control Board to obtain the appropriate permits for direct impacts to jurisdictional features. The Nipomo Community Services District shall implement all pre- and post-construction conditions identified in the permits issued. The plan shall be submitted to the County and applicable agencies 60 days prior to construction.</i>
<i>BIO/mm-17.3</i>	<p><i>Prior to construction within 50 feet of any stream or other surface water resource, the Nipomo Community Services District shall implement the following measures:</i></p> <ol style="list-style-type: none"> <i>1. Prior to project implementation, the project area shall be clearly flagged or fenced so that the contractor is aware of the limits of allowable site access and disturbance. Areas within the designated project site that do not require regular access shall be clearly flagged as off-limit areas to avoid unnecessary damage to sensitive habitats or existing vegetation within the project area.</i> <i>2. Prior to project implementation, a project Erosion Control Plan shall be prepared. During project activities, erosion control measures shall be implemented. Silt fencing, fiber rolls, and barriers (e.g., hay bales) shall be installed to establish a minimum 25-foot setback distance between the project impact areas and adjacent wetlands and other waters. At a minimum, silt fencing shall be checked and maintained on a daily basis throughout the construction period.</i> <i>3. Prior to construction, the applicant shall prepare and submit to the Regional Water Quality Control Board or State Water Resources Control Board a Notice of Intent and prepare a Stormwater Pollution Prevention Plan in accordance with the requirements of the State General Order related to construction projects. The Stormwater Pollution Prevention Plan shall identify the selected stormwater management procedures, pollution control technologies, spill response procedures, and other means that will be used to minimize erosion and sediment production and the release of pollutants to surface water during construction. The applicant shall ensure that sedimentation and erosion control measures are installed prior to any ground-disturbing activities.</i> <i>4. Prior to the commencement of site preparation, ground-disturbing, or construction activities, the applicant will identify required best management practices on all construction plans. These practices will be implemented prior to, during, and following construction activities as necessary to ensure their intended efficacy. Measures will</i>

BIO Impact 17 (Class II)
<p><i>include, but not necessarily be limited to, the placement of silt fencing along the down-slope side of the construction zone, on-site storage of a spill and clean-up kit at all times, and employment of both temporary and permanent erosion and sedimentation control measures (e.g., silt fencing, hay bales, straw wattles).</i></p> <ol style="list-style-type: none"> 5. <i>During project activities, if work occurring within stream channels is necessary, it shall be conducted during the dry season if possible (typically May 1–November 1).</i> 6. <i>Prior to construction, the applicant shall ensure preparation and implementation of a Spill Prevention and Contingency Plan that includes provisions for avoiding and/or minimizing impacts to sensitive habitat areas, including wetland and riparian areas and waterbodies due to equipment-related spills during project implementation. The applicant shall ensure contamination of habitat does not occur during such operations. Prior to the onset of work, the applicant shall ensure that the plan allows a prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measure to take should a spill occur. The plan shall include the following provisions:</i> <ol style="list-style-type: none"> a. <i>All equipment fueling shall be conducted within the designated staging areas of the project site. Such areas shall consist of roadway or ruderal habitat. At no time shall any equipment fueling be conducted within 100 feet of any wetland and riparian habitat area or waterbody.</i> b. <i>An overview of the containment measures to appropriately store and contain all fuels and associated petroleum products during the project shall be included in the plan. This shall include provisions for equipment staging areas, such as the need for drip pans underneath parked equipment and designated storage areas for fuel dispensing.</i>
<p>Residual Impacts</p>
<p><i>With implementation of Mitigation Measures BIO/mm-17.1 through BIO/mm-17.3, impacts to aquatic habitats would be less than significant with mitigation (Class II).</i></p>

WOULD THE PROJECT INTERFERE SUBSTANTIALLY WITH THE MOVEMENT OF ANY NATIVE RESIDENT OR MIGRATORY FISH OR WILDLIFE SPECIES OR WITH ESTABLISHED NATIVE RESIDENT OR MIGRATORY WILDLIFE CORRIDORS, OR IMPEDE THE USE OF NATIVE WILDLIFE NURSERY SITES?

Specific Plan Area

The project area is bounded by roadways and residential properties, with poor connectivity to open space for smaller wildlife species, such as snakes, lizards, and nonflying mammals. There is limited open space connectivity in the greater surrounding environs. Rural residential parcels along the northwestern boundary of the project area (Cherokee Place) may provide moderate opportunity for wildlife movement between the project area and an undeveloped parcel north of Willow Road. US 101 restricts eastward movement of mammals and reptiles from the project area. Small residential parcels along the southeastern and southwestern boundaries of the project area inhibit wildlife movement south or west from the project area. Additionally, there are no undeveloped open space parcels or wildlife corridors available for wildlife movement south and west of the project area.

The project area is a habitat virtually isolated by surrounding development and therefore does not serve the function of habitat connectivity for terrestrial animals. Residential development and infrastructure surrounding the project area restrict wildlife movement between habitats. The project area lacks significant wildlife movement corridors, such as streams, for animals to move into adjacent habitats. For species that fly, such as birds, bats, and insects, the project area serves as a wildlife movement corridor between the coast and inland areas, providing both food and cover for animals.

The proposed development will not disrupt known major wildlife movement corridors. However, permanent loss of habitat and increased presence of human activity and increased vehicular traffic may negatively affect wildlife movement. During construction, implementation of the best management practices (BMPs) outlined in Mitigation Measures BIO/mm-1.1 through BIO/mm-1.6 would minimize impacts to plants and animals and protect wildlife moving through work areas; therefore, there would be *no impact* to the movement of native resident or migratory species.

Off-Site Improvements

North Frontage Road Extension Parcel

The project area is a habitat virtually isolated by surrounding development and therefore does not serve the function of habitat connectivity for terrestrial animals. Residential development and infrastructure surrounding the project area restrict wildlife movement between habitats. The project area lacks significant wildlife movement corridors, such as streams, for animals to move into adjacent habitats; therefore, there would be *no impact* to the movement of native resident or migratory species.

Off-Site Improvements

The project site is located almost entirely on or along existing paved asphalt roads. Therefore, the construction of the off-site transportation, water, and wastewater improvements would not create any new barriers to wildlife movements or exacerbate existing wildlife movement barriers. Construction of the off-site NCSW water and wastewater improvements would have *no impact* to the movement of native resident or migratory species.

WOULD THE PROJECT CONFLICT WITH ANY LOCAL POLICIES OR ORDINANCES PROTECTING BIOLOGICAL RESOURCES, SUCH AS A TREE PRESERVATION POLICY OR ORDINANCE?

Specific Plan Area

BIO Impact 18: The project will result in direct and indirect impacts to coast live oak woodland, coast live oak forest, and individual oak trees. Impacts would be significant and unavoidable (Class I).

DIRECT IMPACTS TO INDIVIDUAL TREES

The project proposes to remove 3,943 oak trees within the Specific Plan Area (Figure 4.4-11). Of these 3,943 oak trees, approximately 1,073 oak trees removed would be in the coast live oak forest habitat, 2,676 would be from coast live oak woodland habitat, and another 194 are scattered among the Burton Mesa chaparral and grassland habitats. Pursuant with the County Oak Woodland Ordinance, the applicant has submitted a CUP application for the tree removal that would result from buildout of the DRSP. Table 4.4-10 lists the number of oak trees found within seven habitat types: forest, woodland, chaparral, three grassland types, and an anthropogenic category. These counts are based on the 2021 oak tree survey results (Althouse and Meade 2022a). Most of the trees proposed for removal are in the coast live oak woodland habitat, with the second largest impacted area being the coast live oak forest habitat.

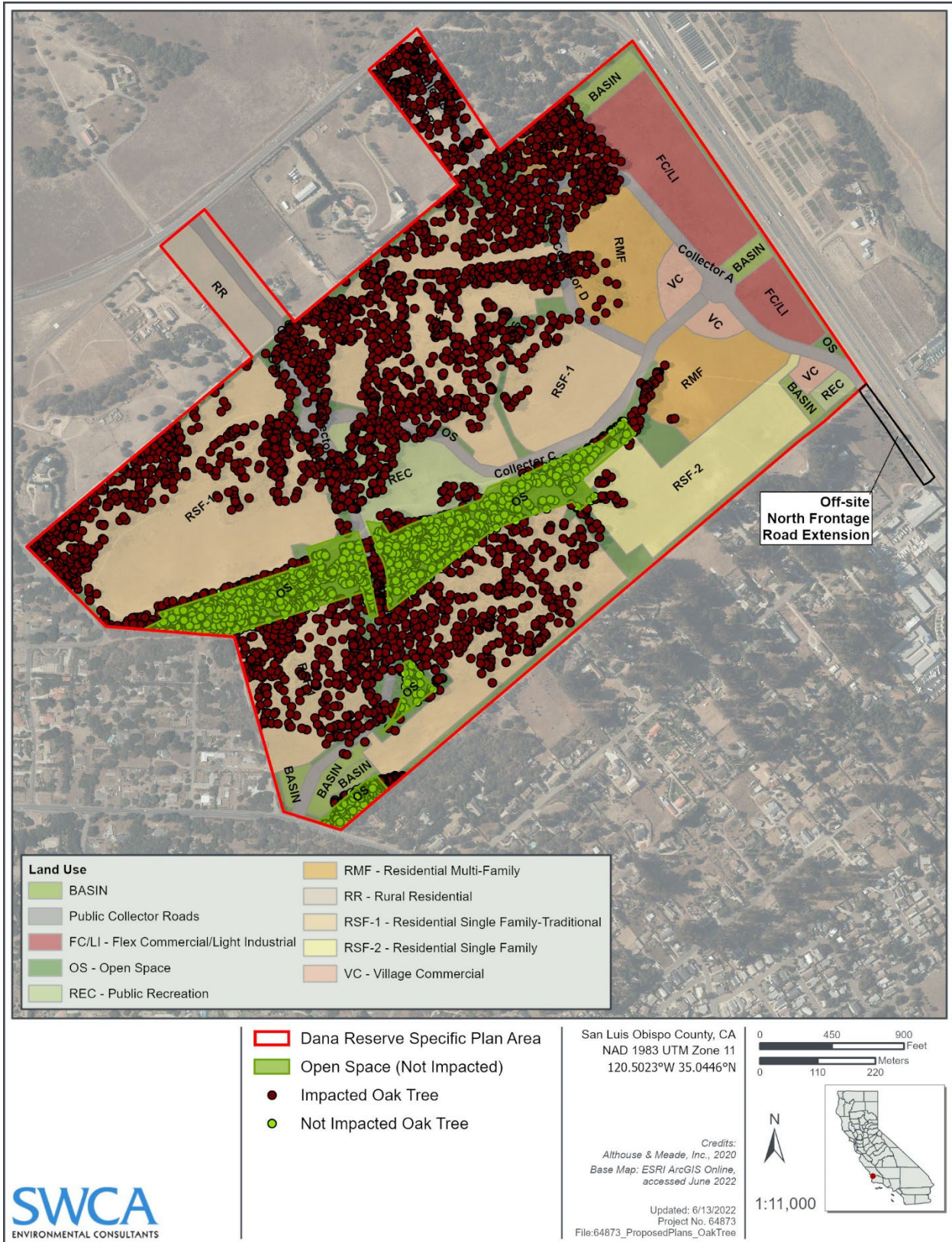


Figure 4.4-11. Proposed impacts: oak trees.

Table 4.4-10. Proposed Plan Oak Tree Impacts by Habitats

Habitat Type	Preserved Trees	Removed Trees	Total Trees	Preserved Canopy (acres)	Impacted Canopy (acres)	Total Canopy (acres)
Coast live oak forest	1,059	1,073	2,132	12.0	15.0	27.0
Coast live oak woodland	116	2,676	2,792	1.1	34.2	35.3
Burton Mesa chaparral	10	155	165	0.2	2.3	2.5
California perennial grassland group	0	16	16	0	0.5	0.5
Mediterranean California naturalized perennial grassland group	0	9	9	0	0.2	0.2
Anthropogenic	0	14	14	0	0.3	0.3
Annual brome grasslands	0	0	0	0	0	0
Total	1,185	3,943	5,128	13.3	52.5	65.8

INDIRECT IMPACTS TO INDIVIDUAL TREES

Indirect impacts to the remaining oak trees include the introduction of invasive species, urban predators (e.g., cats, racoons), illegal dumping from adjacent residences, runoff from cross-streets and landscaped yards, recreational trail development and recreational activities (including impaction of soil within the Critical Root Zones [CRZ] of trees adjacent to the pedestrian and equestrian trails), and hazard reduction activities (e.g., wildland fire fuel management). Up to 750 additional trees may have their CRZ impacted by construction activities and would need to be assessed by a qualified arborist.

IMPACTS TO COAST LIVE OAK WOODLAND (*QUERCUS AGRIFOLIA* / *ADENOSTOMA FASCICULATUM* – [*SALVIA MELLIFERA*]) (G3/S3)

Approximately 78.3 acres of the 288-acre project area (27%) is coast live oak woodland, specifically, the *Quercus agrifolia* / *Adenostoma fasciculatum* - (*Salvia mellifera*) association, which is a G3/S3 sensitive community and identified as a biologically significant resource by the County. It provides important native habitat for plants and wildlife. The proposed project will result in the permanent loss of 75.3 acres of available coast live oak woodland habitat, approximately 96% of the coast live oak woodland on the site.

Coast live oak woodland contributes significantly to the project area and the region’s overall biological diversity, directly supporting eight special-status plants (Pismo clarkia, mesa horkelia, Nipomo Mesa ceanothus, mesa manzanita, Michael’s rein orchid, California spineflower, sand almond, and sand buck brush) and four special-status nesting birds (Cooper’s hawk, oak titmouse, white-tailed kite, and Nuttall’s woodpecker). Sensitive reptiles such as Blainville’s (coast) horned lizard are also supported by this habitat. California’s Central Coast contains 80% of the state’s coast live oak woodlands (Gaman 2008). This habitat type is considered sensitive due to its biological diversity and presence of sensitive plant and animal species; therefore, impacts would be considered significant, and mitigation is required to reduce project impacts.

IMPACTS TO COAST LIVE OAK FOREST (*QUERCUS AGRIFOLIA* / *TOXICODENDRON DIVERSILOBUM*) (G5/S4)

Approximately 40.5 acres of the 288-acre project area (14%) is coast live oak forest, specifically, the *Quercus agrifolia* / *Toxicodendron diversilobum* association. Coast live oak forest is identified as a biologically significant resource in San Luis Obispo County that provides important native habitat for

plants and wildlife. The project will result in the permanent loss of up to 21.7 acres in the proposed plan of available coast live oak forest habitat. Approximately 17.0 acres of coast live oak forest will be protected as a biological open space easement on site. The remaining 21.9 acres the coast live oak forest and remnant woodland patches would be indirectly impacted by recreational activities from the surrounding community, the invasion of non-native species used in landscaping, and regular fire fuel management activities that would occur within a 100-foot buffer of any structures.

Coast live oak forest contributes significantly to the project area's overall biological diversity, indirectly supporting eight special-status plants (Pismo clarkia, mesa horkelia, Nipomo Mesa ceanothus, mesa manzanita, Michael's rein orchid, California spineflower, sand almond, and sand buck brush) and directly supporting four special-status nesting birds (Cooper's hawk, oak titmouse, white-tailed kite, and Nuttall's woodpecker). Sensitive reptiles such as Blainville's horned lizard are also supported by this habitat. California's Central Coast contains 90% of the state's coast live oak forests (Gaman 2008). This habitat type is considered sensitive due to its biological diversity and presence of sensitive plant and animal species; therefore, impacts are considered significant, and mitigation is required to reduce project impacts.

SUMMARY OF IMPACTS AND PROPOSED MITIGATION

The applicant is proposing to mitigate for direct impacts to 75.3 acres of coast live oak woodland (i.e., removal of 2,676 oak trees) and 21.7 acres of coast live oak forest (i.e., 1,073 oak trees) through the on-site preservation of 3 acres of coast live oak woodland (i.e., 116 trees) and 17 acres of coast live oak forest (i.e., 1,059 trees) and the off-site preservation of 187 acres of coast live oak woodland and 67.5 acres of coast live oak forest on the Dana Ridge Ranch Property (Mitigation Measure BIO/mm-18.4; Figures 4.4-12 and 4.4-13). The Dana Ridge Ranch Property also contains 95.9 acres of chamise chaparral, 19.2 acres of La Panza manzanita chaparral, and 26.4 acres of annual grassland. None of the special-status species observed on-site associated with these habitat types occur on the mitigation parcel. No tree replacement is proposed for oak trees removed from coast live oak woodland or forest habitats.

For oak trees removed in all other habitats on-site (194 oak trees in Burton Mesa chaparral, grassland habitats, and anthropogenic areas), the applicant is proposing to replace these trees on-site with plantings at a 4:1 ratio (four trees for each tree removed), totaling 776 planted oak trees (Mitigation Measure BIO-18.2). Based on the proposed on-site tree replacement plan, trees planted for mitigation will include those planted along streets and in recreational open spaces areas.

As compensation for oak trees indirectly impacted, mitigation will be provided through planting at a ratio specific to the level of impact to the CRZ. Specifically, at a 2:1 ratio for impacts to less than 10% of the tree's CRZ, at a 3:1 ratio for impacts over 10% and less than 50% of the tree's CRZ and canopy, and at a 4:1 ratio for impacts to more than 50% of the trees' CRZ and canopy (Mitigation Measure BIO/mm-18.2). Therefore, as mitigation for the indirect impacts to approximately 750 oak trees, the applicant proposes to plant anywhere between 1,500 and 3,000 oak trees.



Figure 4.4-12. Proposed plan oak tree canopy in various habitats.

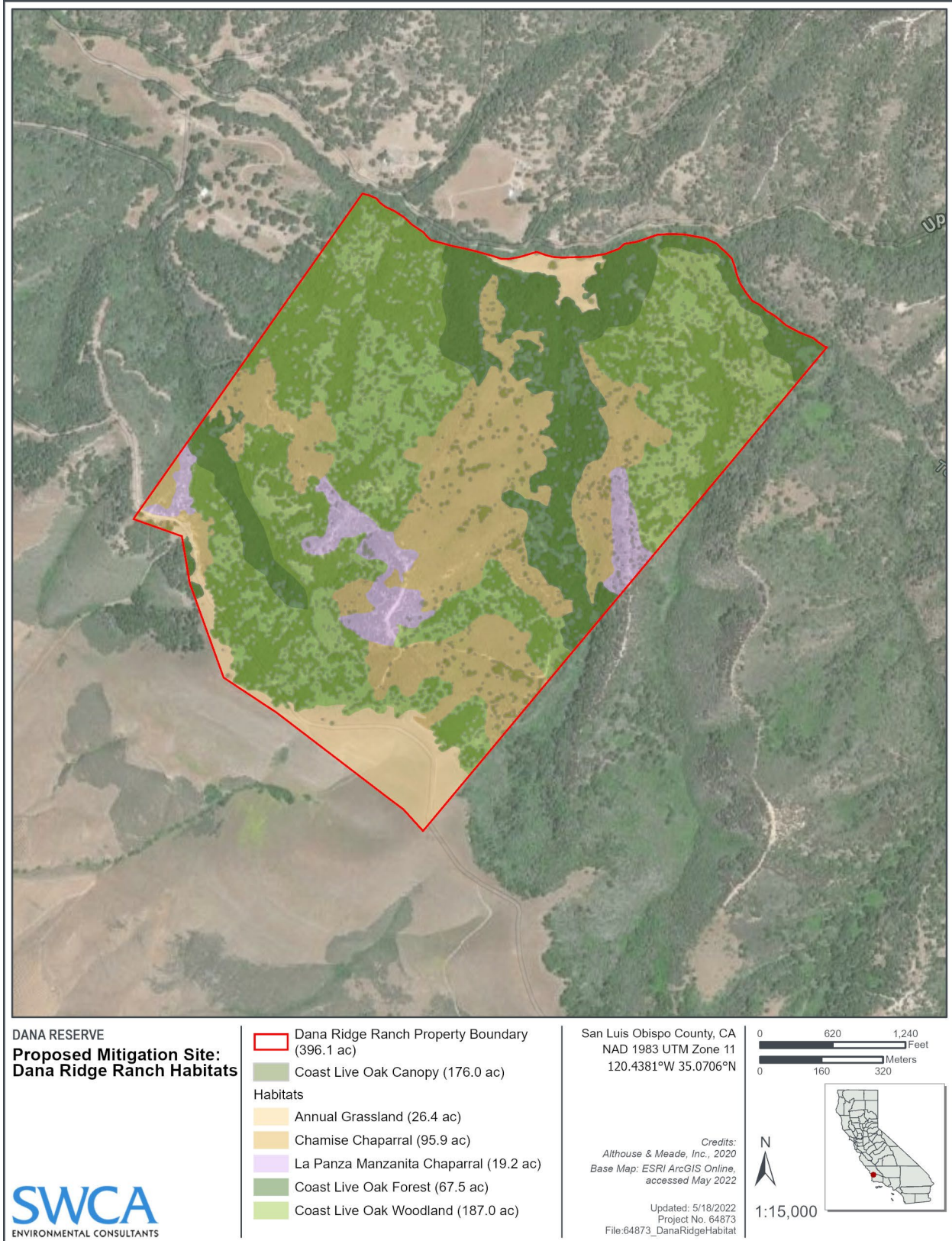


Figure 4.4-13. Proposed mitigation site: Dana Ridge Ranch habitats.

BIO Impact 18 (Class I)	
The project will result in direct and indirect impacts to coast live oak woodland, coast live oak forest, and individual oak trees.	
Mitigation Measures	
<i>BIO/mm-18.1</i>	<p>Prepare On-Site Tree Protection Plan for Trees Retained. Prior to issuance of a grading permit for any future development within the Specific Plan Area, a qualified arborist shall prepare a Tree Protection Plan designed to protect retained oaks during construction. Tree protection guidelines and a root protection zone shall be established and implemented for each retained tree over 4 inches diameter at breast height within 50 feet of site disturbance. The following criteria shall be included:</p> <ol style="list-style-type: none">1. Preserve Oak Forest Habitat on Dana Reserve. Designate oak forest habitat for open space preservation where limited recreational and open space uses may be allowed. Preserve a minimum of 17 acres of oak forest habitat on-site.2. Map and Number Trees to be Retained. Tree canopies and trunks within 50 feet of proposed disturbance zones shall be mapped and numbered by a County of San Luis Obispo-approved arborist or biologist and a licensed land surveyor. Data for each tree shall include date, species, number of stems, diameter at breast height of each stem, critical root zone diameter, canopy diameter, tree height, health, habitat notes, and nests observed. <i>Impacts shall be identified for native oak trees with a diameter at breast height of 4 inches or greater, as measured at a height of 4.5 feet aboveground. Impacts include any ground disturbance within the critical root zone, trunk damage, or any pruning of branches 3 inches in diameter or greater.</i> <i>A qualified arborist shall determine the critical root zone for each retained tree on a case-by-case basis, generally 1.5 times the average canopy radius (distance from trunk to edge of drip line). For example, a tree with a 24-foot-diameter canopy would have a 36-foot critical root zone, or approximately 18 feet from the trunk. Where the canopy has been pruned prior to evaluation, the critical root zone may be calculated as 1.5 feet per inch of the tree's diameter at breast height. For example, an 18-inch diameter at breast height tree would be assigned a 24-foot critical root zone. The extent of the critical root zone shall be used as the basis for a tree protection zone, such as the line of encroachment for the edge of a group of trees, shown on all construction plans.</i>3. Preconstruction Meeting. On-site preconstruction meetings for each phase that affects oak trees shall be attended by the arborist(s), owner(s), Planning staff, and earth-moving team. Explicit exhibits and discussion will focus on tree protection during construction and provisions of the Tree Protection Plan.4. Install Protective Fencing. Tree protection fencing shall be installed at the perimeter of the tree protection zone. At a minimum, a tree protection zone shall be delineated as a no-construction zone. Preferably, fencing shall be installed 6 feet outside the tree protection zone. No construction equipment shall be staged, parked, or stored within 6 feet of any oak tree dripline. <i>The fence shall be installed with arborist field consultation before any construction or earth moving begins. The proposed fencing shall be shown on the grading plan. It must be a minimum of 4-foot-high chain-link, snow, or safety fence staked (with t-posts 8 feet on center). The owner/applicant shall be responsible for maintaining an erect fence throughout the construction period. (For trees to be protected longer than 4 months, metal fencing is preferred to minimize maintenance requirements.) The arborist(s), upon notification, will inspect the fence placement once it is erected. After this time, fencing shall not be moved without arborist inspection/approval.</i> <i>If plastic fencing is used, a minimum of four zip ties shall be used on each stake to secure the fence. Weatherproof signs shall be permanently posted on the fences every 50 feet, with the following information: Tree Protection Zone. No personnel, equipment, materials, or vehicles allowed.</i>

BIO Impact 18 (Class I)

5. **Avoid and Minimize Tree Impacts.** Impacts to the oak canopy or critical root zone shall be avoided where feasible in light of project layout and the locations of physical structures, paved or otherwise altered surfaces, and infrastructure. Impacts include pruning branches over 3 inches in diameter, any ground disturbance or soil compaction within the dripline or critical root zone of the tree (whichever distance is greater), and trunk damage.
- a. **No Tree Attachments.** Wires, signs, and other similar items shall not be attached to the oak trees.
 - b. **Pruning.** Pruning shall be implemented by, or under the direction of, a certified arborist. The purpose and type of pruning implemented shall be tracked by service date and class of pruning for each tree. A certified arborist shall direct all pruning. No pruning shall take more than 25% of the live crown of any native tree. Any trees that may need pruning for road/home clearance shall be pruned prior to any grading activities to avoid branch tearing. Unless a hazardous or unsafe situation exists, major trimming shall be done only during the summer months. (Coast live oaks, which retain their leaves year-round, are generally dormant July through October.)
 - i. **Class 1 pruning** emphasizes aesthetics, removal of dead, dying, and decaying weak branches and selective thinning to lessen wind resistance.
 - ii. **Class 2 pruning** is for structural integrity and tree health concerns. It consists of removal of dead, dying, decaying, interfering, obstructing, and weak branches and selective thinning to lessen wind resistance.
 - iii. **Class 3 pruning** is conducted for safety considerations and hazardous conditions.
 - iv. **Class 4 pruning** includes crown-reduction pruning, such as reduction of tops, sides, or individual limbs.

Removal of larger lower branches shall be minimized to avoid making tree tops heavy and more susceptible to "blow-overs," reduce large limb cuts that are susceptible to disease and infestation, retain wildlife habitat values associated with the lower branches, retain shade to keep summer temperatures cooler (retains higher soil moisture, greater passive solar potential, provides better conditions for oak seedling volunteers), and retain the natural shape of the tree. The amount of trimming (roots or canopy) done in any one season shall be limited as much as possible to reduce tree stress/shock (10% or less is best, 25% maximum).
 - c. **Surface Root Protection.** Care shall be taken to avoid surface roots within the top 18 inches of soil. If any roots must be removed or exposed, they shall be cleanly cut and not left exposed above the ground surface.
 - d. **Utility Placement.** All utilities, sewer, and storm drains shall be placed down the roads and driveways and, when possible, outside of the critical root zones. The arborist shall supervise trenching within the critical root zone. All trenches in these areas shall be exposed by air spade or hand dug with utilities routed under/over roots larger than 3 inches in diameter. Boring under oaks is also acceptable.
 - e. **Permeable Paving within 20 Feet of the Critical Root Zone.** Paving shall be pervious material where access roads or driveways encroach within 20 feet of a retained oak tree's critical root zone.
 - f. **Trenching within the Critical Root Zone.** All trenching within the critical root zone of native trees shall be hand dug or implemented with an air spade or bore. All major roots shall be avoided whenever possible. All exposed roots larger than 1 inch in diameter shall be clean cut with sharp pruning tools and not left ragged. A mandatory meeting between the arborists and grading contractor(s) must take place prior to work start.
 - g. **Grading within the Critical Root Zone.** Grading shall not encroach within the critical root zone unless authorized by the grading permit. Grading shall not

BIO Impact 18 (Class I)

disrupt the normal drainage pattern around the trees. Fills shall not create a ponding condition and excavations shall not leave the tree on a rapidly draining mound. Any exposed roots shall be covered the same day they were exposed if possible. If left exposed for more than a day, roots must be covered with burlap or another suitable material and wetted down two times per day until reburied.

- h. Equipment Operation. Vehicles and all heavy equipment shall not be driven under the trees, as this will contribute to soil compaction. Also, there is to be no parking of equipment or personal vehicles in these areas. All areas behind fencing are off limits unless preapproved by the arborist.*

 - i. Existing Surfaces. The existing ground surface within the critical root zone of all oak trees shall not be cut, filled, compacted, or impaired, unless shown on the grading plans and approved by the arborist. If grading in the root zone cannot be avoided, retaining walls shall be constructed to minimize cut and fill impacts.*
 - ii. Construction Materials and Waste. No liquid or solid construction waste shall be dumped on the ground within the critical root zone of any native tree. The critical root zone areas are not for storage of materials. No waste or contaminated water shall be dumped on the ground or into any grate between the outer edge of the critical root zone and the base of the oak trees, or uphill from any oak tree where such substance might reach the roots through a leaching process.*
 - iii. No Permanent Irrigation within the Dripline of Existing Oaks. No permanent irrigation shall occur within the dripline of any existing oak tree*
- 6. Correct Damage to Oaks.** *The applicant shall be responsible for correcting any damage to oak trees on the property in a manner specified by an arborist approved by the County at the applicant's expense.*

 - a. Impacted Root Treatment. Roots impacted during construction (e.g., trenching or grading operations) shall be treated by the arborist on a case-by-case basis using best practices, such as clean cuts accompanied by application of appropriate fungicides and insecticides by a licensed pest control applicator.*
 - b. Soil Aeration Methods. Soils within the critical root zone that have been compacted by heavy equipment and/or construction activities must be returned to their original state before all work is completed. Methods include water jetting, adding organic matter, and boring small holes with an auger (18 inches deep, 2–3 feet apart with a 2–4-inch auger) and the application of moderate amounts of nitrogen fertilizer. The arborist(s) shall advise.*
 - c. Chip Mulch. All impacted areas within the critical root zone of the trees shall receive a 4- to 6-inch layer of chip mulch to retain moisture, retain soil structure, and reduce the effects of soil compaction.*
 - d. Landscape. All landscape within the critical root zone shall consist of drought-tolerant or native varieties. Lawns shall be avoided. All irrigation trenching shall be routed around critical root zones, otherwise aboveground drip irrigation shall be used. It is the owner's responsibility to notify the landscape contractor regarding this mitigation. For this site, it is strongly recommended that drought-tolerant native landscape is used with the approval of the arborist. This includes all sidewalk/greenbelt areas.*
 - e. Fertilization and Cultural Practices. As the project moves toward completion, the arborist(s) may suggest either fertilization and/or mycorrhizal inoculation applications that will benefit tree health. Application of mycorrhizal inoculum offers several benefits to the host plant, including faster growth, improved nutrition, greater drought resistance, and protection from pathogens.*
 - f. Post-Construction Tree Inspection. Prior to occupancy of each phase, a letter from the arborist(s) shall be required that verifies health/condition of all impacted trees and provides recommendations for additional mitigation. The*

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letter shall verify that the arborist(s) or their designee were on-site for all grading and/or trenching activity that encroached into the critical root zone of the selected native trees, and that all work in these areas was completed to the standards set forth above.

7. **Arborist Supervision and Treatment of Impacted Trees.** A licensed arborist shall supervise all ground disturbances within the tree protection zone and activities that may impact branches. The arborist shall provide guidance such as temporary damaged root protection, use of air spades, timing between impact and root treatment by arborist, appropriate use of air spade or hand tools to minimize tree damage specific to the action proposed, and to treat root zone and branch damage.
During and upon completion of construction, the licensed arborist shall provide treatment, as the licensed arborist determines is appropriate, to maintain and improve the health of the tree, including pruning of the broken main stem, and soil supplement and watering programs. All root pruning shall be completed with sharpened hand pruners. Pruned roots shall be immediately covered with soil or moist fabric. Damaged roots shall be treated within 24 hours by a qualified tree specialist to inhibit fungus, insects, or other disease damage.
8. **Report Tree Impacts.** Damage to any tree during construction shall be reported to the project arborist within 24 hours. The damage should be treated as soon as possible, as appropriate, by an arborist or his/her designee approved by the County of San Luis Obispo to prevent disease or pest infestation. Damage will be reported to the County of San Luis Obispo and applicant during each month of construction.
All monitoring will be documented on the field report form, which will be forwarded to the project manager and County.
9. **Protect Replacement/Mitigation Oaks.** The following activities are not allowed within the root zone of newly planted oak trees: year-round irrigation (no summer watering, unless "establishing" new tree or native compatible plants for up to 7 years), grading (includes cutting and filling of material), compaction (e.g., regular use of vehicles), placement of impermeable surfaces (e.g., pavement), and disturbance of soil that impacts roots (e.g., tilling).
10. **Notes on Plans.** The standards in BIO/mm-18.1(1–7) shall be noted and shown on all grading and building plans, as well as an additional map sheet recorded with any Final Map in order to describe the activities prohibited outside the approved construction envelopes. All trees to be retained within 50 feet of impact areas shall be shown with tree protection zone for groups of trees and critical root zone for individual trees.
11. **Prepare and Implement On-Site Oak Tree Protection, Replacement, and Habitat Restoration Plan.** Prior to recordation of a Final Map for a land division on the property, the developer shall submit a Tree Protection Plan, Tree Replacement Plan (BIO/mm-18.2), and Oak Woodland Habitat Restoration Plan (BIO/mm-18.3) for the review and approval by the County of San Luis Obispo Planning and Building Director. The Oak Tree Protection, Replacement, and Habitat Restoration Plan will be approved by the County of San Luis Obispo and provided to all contractors and subcontractors that work within or adjacent to the critical root zone of native trees. Provisions of the Oak Tree Protection, Replacement, and Habitat Restoration Plan shall be included in the Worker Environmental Training Program to confirm that workers and supervisors are trained in maintaining fencing, protecting root zones, and conforming to all tree protection goals. Each contractor must sign and acknowledge the plan. Any future changes (within the critical root zone) will need project arborist review and implementation of potential mitigation measures before proceeding.
12. **Mitigate Impacts to Preserved Trees.** Damage that occurs to protected retained trees or sensitive habitats resulting from construction activities shall be mitigated in a manner approved by the County of San Luis Obispo Planning and Building Director. Impacts to less than 10% of the tree's critical root zone and canopy shall be mitigated at a 2:1 ratio (plant two trees for each tree impacted). Impacts over 10% and less than 50% of the tree's critical root zone and/or canopy shall be mitigated at a 3:1 ratio. Impacts to more than 50% of the trees' critical root zone shall require mitigation at a 4:1 ratio. See BIO/mm-18.2 for replacement tree performance criteria.

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Mitigation for impacted trees shall be tracked with the following information: tree tag number, location (latitude/longitude WGS84 datum), number of trunks, diameter at breast height of main trunk, proposed critical root zone impact percent, proposed mitigation ratio, actual impact percent, date of impact (month/year), document if accounted for in approved plans, actual replacement ratio, actual replacement number, date of planting (month/year), location of mitigation planting (Phase and general location), and expected year performance criteria to be met.

Quarterly impact and proposed mitigation documentation shall be provided to the County during the active phases of construction. Annual reports shall be provided until the project is completed.

BIO/mm-18.2 Tree Replacement Plan. Prior to issuance of a grading permit for any future development within the Specific Plan Area, a qualified arborist shall prepare and submit an Oak Tree Replacement Plan for the review and approval by the County of San Luis Obispo Planning and Building Director. The Oak Tree Replacement Plan will be approved by the County of San Luis Obispo and will include a plan for adding native oaks to the landscape planting plan for streets and recreational open spaces.

The Oak Tree Replacement Plan shall specify the number of oak trees to be planted based on the following mitigation ratios:

1. **Mitigation for Removed Trees.** Oak trees removed from habitat types not mapped as oak woodland or oak forest in Figure 4.4-2, shall be mitigated for by planting replacement trees at a 4:1 ratio (four trees for each tree removed, e.g., 120 oaks planted for 30 removed).
2. **Mitigation for Impacts to Preserved Trees.** Per BIO/mm-18.1, damage that occurs to protected retained trees resulting from construction activities shall be mitigated for at the following ratios:
 - a. Impacts to less than 10% of a tree's critical root zone and canopy shall be mitigated at a 2:1 ratio (plant two trees for each tree impacted).
 - b. Impacts over 10% and less than 50% of a tree's critical root zone and/or canopy shall be mitigated at a 3:1 ratio (plant three trees for each tree impacted).
 - c. Impacts to more than 50% of a trees' critical root zone and/or canopy shall require mitigation at a 4:1 ratio (plant four trees for each tree impacted).
3. **Criteria for Replacement Trees:**
 - a. Mitigation trees may be planted to enhance the on-site oak woodland and/or included in the landscape planting plan but are not allowed in the preserved oak forest habitat.
 - b. If on-site planting areas are not available, off-site oak habitat mitigation areas shall be calculated at two times 1,750 square feet per tree (assuming a 47-foot-diameter average canopy of trees removed from grassland habitats).
 - c. Replacement trees shall not be planted within designated fire fuel management zones (i.e., within 100 feet of structures).
 - d. A minimum of 25% of the oak trees planted in mitigation areas and in on-site restoration areas shall be propagated from acorns collected from on-site oak trees, preferably from those proposed to be removed. All mitigation trees propagated from acorns must reach at least 1-inch in diameter prior to the removal of mature trees.
 - e. All other mitigation trees must be from Central Coast acorns. All replacement trees shall be at least 1-inch in diameter.
 - f. Mitigation trees shall be maintained and monitored for a minimum of 7 years and must have reached a minimum height of 6 feet prior to certification of completion.
 - g. The following activities are not allowed within the root zone of newly planted oak trees: Year-round irrigation (no summer watering, unless "establishing" new tree or native compatible plants for up to 7 years), grading (includes

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cutting and filling of material), compaction (e.g., regular use of vehicles), placement of impermeable surfaces (e.g., pavement), and disturbance of soil that impacts roots (e.g., tilling).

In addition to oaks, the Oak Tree Replacement Plan shall include plants typical of Nipomo Mesa native oak woodlands in open space planting palettes, as well as herbs and shrubs that thrive near oaks, and generally require less irrigation than some of the landscaping commonly employed on the Central Coast. The table below provides appropriate plants associated with oak trees, including species found on the Dana Reserve. This list includes several with California Rare Plant Rank status. The landscape planting plan shall include common native understory species, such as western nettle and California plantain, as they may be naturally present in native landscapes and allowed to be retained by maintenance crews during restoration and site maintenance. Special-status species should be encouraged to be represented in the native plant landscape plan, especially in areas where already present or in the vicinity.

Recommended Native Plant Species for Landscaping

Scientific Name	Common Name	Special Status
Shrubs – 12 Native Taxa		
<i>Artemisia californica</i>	California sagebrush	--
<i>Ceanothus impressus</i> var. <i>nipomensis</i>	Nipomo Mesa ceanothus	CRPR 1B.2
<i>Ceanothus cuneatus</i> var. <i>fascicularis</i>	Sand buck brush	CRPR 4.2
<i>Cercocarpus betuloides</i> var. <i>betuloides</i>	Birch-leaf mountain-mahogany	--
<i>Frangula californica</i>	California coffee berry	--
<i>Heteromeles arbutifolia</i>	Toyon	--
<i>Prunus ilicifolia</i>	Hollyleaf cherry	--
<i>Prunus fasciculata</i> var. <i>punctata</i>	Sand almond	CRPR 4.3
<i>Rhamnus crocea</i>	Spiny redberry	--
<i>Salvia mellifera</i>	Black sage	--
<i>Sambucus nigra</i> ssp. <i>caerulea</i>	Blue elderberry	--
<i>Symphoricarpos mollis</i>	Creeping snowberry	--
Forbs – Annual and Perennial Native Taxa		
<i>Acmispon americanus</i>	American bird's foot trefoil	--
<i>Acmispon glaber</i>	Deer weed	--
<i>Anaphalis margaritacea</i>	Pearly everlasting	--
<i>Asclepias eriocarpa</i>	Kotolo	--
<i>Cirsium occidentale</i>	Cobweb thistle	--
<i>Clarkia purpurea</i> ssp. <i>viminea</i>	Wine cup Clarkia	--
<i>Claytonia parviflora</i> ssp. <i>parviflora</i>	Miner's lettuce	--
<i>Corethrogyne filaginifolia</i>	Common tansyaster	--
<i>Dichelostemma capitatum</i> ssp. <i>capitatum</i>	Blue dicks	--
<i>Diplacus aurantiacus</i>	Sticky monkeyflower	--
<i>Helianthemum scoparium</i>	Broom rose	--
<i>Hesperocnide tenella</i>	Western nettle	--
<i>Heterotheca grandiflora</i>	Telegraph weed	--

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<i>Horkelia cuneata</i> var. <i>puberula</i>	Mesa horkelia	CRPR 1B.1
<i>Lupinus bicolor</i>	Miniature lupine	--
<i>Lupinus nanus</i>	Sky lupine	--
<i>Lupinus truncatus</i>	Blunt leaved lupine	--
<i>Paeonia californica</i>	California peony	--
<i>Pedicularis densiflora</i>	Warrior's plume	--
<i>Phacelia ramosissima</i>	Branching phacelia	--
<i>Phacelia tanacetifolia</i>	Lacy phacelia	--
<i>Pholistoma auritum</i>	Fiesta flower	--
<i>Piperia michaelii</i>	Michael's rein orchid	CRPR 4.2
<i>Plantago erecta</i>	California plantain	--
<i>Pseudognaphalium californicum</i>	Ladies' tobacco	--
<i>Pterostegia drymarioides</i>	Fairy mist	--
<i>Silene laciniata</i>	Cardinal catchfly	--
<i>Solanum americanum</i>	Common nightshade	--
<i>Solanum xanti</i>	Chaparral nightshade	--

BIO/mm-18.3

Protect On-Site Oak Woodland Resources Intended to be Retained and Preserved On-Site. Prior to issuance of a grading permit for any future development within the Specific Plan Area, the applicant shall submit an Oak Woodland Protection and Restoration Plan to be reviewed and approved by the County of San Luis Obispo Planning and Building Department. Coast live oak forest, woodland, and retained trees within 50 feet of development shall be shown on all grading and development plans. The plan shall be prepared by a qualified individual acceptable to the County of San Luis Obispo Director of Planning and Building. The plan shall specify short- and long-term management actions necessary to preserve and enhance the on-site biological open space and will include sections for (1) habitat protection, (2) monitoring during project construction, (3) reporting, (4) oak tree replacement planting, (5) rare plant mitigation planting and protection, and (6) wildlife habitat protection. The plan shall include (7) a fuel management component that provides measures to protect native understory vegetation and downed woody debris in a manner that optimizes wildlife habitat protection and reduces fire risk to neighborhoods.

Fire fuel management shall address reduction of fire fuel loads within 100 feet of structures. The first 30 feet from residences/structures (e.g., the back of yards) shall be maintained to remove dead plant material, and trees shall be maintained to keep branches 10 feet from other trees. In the next 70 feet, annual grass shall be cut or grazed to a maximum average height of 4 inches. A horizontal space shall be created between patches of native shrubs. Fallen branches, twigs, and bark shall be removed to reduce total fuel load. Patches of live shrubs shall be retained, and patches of annual wildflowers shall be mowed/grazed after seeds have set. Young trees that are in shrub-form shall be shaped to minimize fuel load but allow for trees to protect their trunks during the growth period. Heavy branches of mature trees at least 6 feet from the ground shall be removed per California Department of Forestry and Fire Protection's "Prepare for Wildfire" recommendations to maintain defensible space. Management of defensible space (100 feet from structures and 10 feet from roads) must protect special-status plant and wildlife taxa as specified in Mitigation Measures BIO/mm 1.1 through BIO/mm-1.1 through BIO/mm-1.6, BIO/mm-2.1 through BIO/mm-2.3, BIO/mm-3.1, BIO/mm-4.1 and BIO/mm-4.2, BIO/mm-5.1, BIO/mm-6.1, BIO/mm-7.1, BIO/mm-8.1, BIO/mm-9.1, and BIO/mm-14.1.

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BIO/mm-18.4	<p>Off-Site Preservation. Prior to recordation of a Final Map for a land division over the Specific Plan Area, the applicant shall protect coast live oak forest (<i>Quercus agrifolia</i> / <i>Toxicodendron diversilobum</i> association) and coast live oak woodland (<i>Quercus agrifolia</i> / <i>Adenostoma fasciculatum</i> – [<i>Salvia mellifera</i>] association) at a ratio of 2:1 (2 acres conserved for each acre removed). A conservation easement over the protected habitat shall be controlled by a qualified conservation organization approved by the County of San Luis Obispo. Potential conservation organizations include, but are not limited to, The Nature Conservancy, Land Conservancy of San Luis Obispo County, Greenspace, or Cambria Land Trust.</p> <p><i>Applicant-Proposed Mitigation:</i> The applicant proposes to conserve 187 acres of coast live oak woodland and 67.5 acres of coast live oak forest that is intermixed with the 95.9 acres of chamise chaparral, 19.2 acres of La Panza manzanita chaparral, and 26.4 acres of annual grassland on the Dana Ridge Ranch. This property is located southeast of Dana Reserve (see Figure 4.4-13). Habitat descriptions, a plant list, and figures associated with this off-site mitigation location are detailed in Althouse and Meade (2021). The project proposes to impact 21.7 acres of coast live oak forest and 75.3 acres of coast live oak woodland (97.0 acres total). The applicant’s proposed mitigation on Dana Ridge Ranch would yield a mitigation ratio of 3.1:1 for coast live oak forest and 2.5:1 for coast live oak woodland habitats. No restoration or replacement of removed oak trees is proposed.</p>
Residual Impacts	
<p>Mitigation Measures BIO/mm-18.1 through BIO/mm-18.4 would reduce impacts associated with direct and indirect impacts to coast live oak woodland, coast live oak forest, and individual oak trees. However, County COSE Policy BR 1.4 requires mitigation for development projects to achieve “no-net loss” of sensitive habitat acreage, values, and function and County COSE Goal BR 3 is to maintain the acreage of native woodlands, forests, and trees at 2008 levels. Of the 3,943 oak trees to be removed, the mitigation only requires the applicant to plant replacement trees for 194 of the trees being removed. The applicant is also required to plant approximately 1,500 to 3,000 new trees to mitigate indirect oak tree impacts. At this level, this is a significant net loss of oak trees and acreage of oak woodlands in the county.</p> <p>County COSE Policy BR 3.3.1 requires the County to maintain the integrity and diversity of oak woodlands, chaparral communities, and other significant vegetation as part of the compliance with the Oak Woodlands Preservation Act (PRC Section 21083.4). The species composition of the coast live oak woodland in the project area contains the same species characteristic of the Burton Mesa chaparral vegetation community on-site. The understory vegetation on the mitigation parcel is distinctly different and does not support the special-status species that occur on-site. That is because the soils and elevation range of the mitigation parcel is significantly different than the Dana Reserve project area. Without proper in-kind preservation and restoration of coast live oak woodland habitat on similar soil types and in an elevation range similar to the project area, the mitigation does not maintain the diversity of oak woodland communities in the county.</p> <p>Mitigating for the removal of oak trees in Burton Mesa chaparral and grassland habitats with trees planted along streets and in recreational open spaces areas, as the on-site planting plan proposes, does not sufficiently maintain the integrity of the vegetation community being lost.</p> <p>Based on these considerations, the proposed impacts to oaks and oak woodlands would still be significant and unavoidable (Class I).</p>	

Off-Site Improvements

North Frontage Road Extension Parcel

No oak trees were mapped on the North Frontage Road Extension Parcel (Althouse and Meade 2022b); therefore, there will be *no impact* to oaks as part of the extension of North Frontage Road.

Off-Site Improvements

BIO Impact 19: Off-site transportation improvements and/or trenching of new water and wastewater pipelines could result in direct and indirect impacts to oak trees. Impacts would be less than significant with mitigation (Class II).

Detailed habitat mapping was not conducted for the off-site transportation, water, and wastewater improvement areas (except for the proposed extension of North Frontage Road, which is discussed in detail in this section). However, based on an assessment of aerial imagery and Google Earth Street View, several oak trees were observed along the pipeline alignment areas. Specifically, several oak trees were observed along North Oakglen Avenue. Trenching adjacent to oak trees could have significant impacts if ground disturbance or soil compaction occurred within the dripline or CRZ of the trees. Mitigation Measure BIO/mm-19.1 has been included below to avoid trenching through the CRZ of oak trees along the alignments if feasible. If trenching in the CRZ is unavoidable, the NCSO will procure a licensed arborist to monitor excavations in these areas to prevent significant damage to the oak trees. With implementation of Mitigation Measure BIO/mm-19.1, potential impacts to protected trees would be *less than significant*.

BIO Impact 19 (Class II)	
Off-site transportation improvements and/or trenching of new water and wastewater pipelines could result in direct and indirect impacts to oak trees.	
Mitigation Measures	
BIO/mm-19.1	Oak Tree Monitoring. Impacts to oak trees shall be avoided where feasible. Impacts include any ground disturbance or soil compaction within the dripline or critical root zone of the trees (whichever distance is greater). A qualified arborist shall determine the critical root zone for each oak tree within the path of the pipeline alignments. Ground disturbance shall be supervised by a licensed arborist if excavation is proposed within the critical root zone of an oak tree. The arborist shall supervise all trenching within the critical root zone. The arborist shall provide guidance such as temporary damaged root protection, use of air spades, timing between impact and root treatment by arborist, appropriate use of air spade or hand tools to minimize tree damage specific to the action proposed, and to treat root zone and branch damage. During and upon completion of construction, the licensed arborist shall provide treatment, as the licensed arborist determines is appropriate, to maintain and improve the health of the tree, including pruning of the broken main stem, and soil supplement and watering programs. All root pruning shall be completed with sharpened hand pruners. Pruned roots shall be immediately covered with soil or moist fabric. Damaged roots shall be treated within 24 hours by a qualified tree specialist to inhibit fungus, insects, or other disease damage.
Residual Impacts	
With implementation of Mitigation Measure BIO/mm-19.1, impacts to oak trees from the installation of new off-site transportation, water, and wastewater improvements would be less than significant (Class II).	

4.4.6 Cumulative Impacts

BIO Impact 20: The project would have cumulatively considerable impacts related to biological resources. Cumulative impacts would be significant and unavoidable (Class I).

The proposed project's contribution to cumulative impacts on biological resources is based on the loss of open space and associated wildlife habitat. The Specific Plan Area primarily consists of Burton Mesa chaparral, coast live oak woodland, and coast live oak forest, intermixed with various grassland habitats. Several special-status plant and animal species and two sensitive vegetation communities occur on-site, all of which would be impacted by the proposed development, except for 21.7 acres of primarily coast live oak forest habitat. The County anticipates several smaller residential development projects in the surrounding community and two major development projects:

- Tract 244: Development of 12 single-family dwelling units and associated structures in the community of Nipomo
- Woodlands Tract 2341 & 3126: Development of 85 single-family dwelling units and associated structures in the southwestern portion of the community of Nipomo
- Brandt: Subdivision of a 20.7-acre parcel into four lots in the community of Nipomo

Additional commercial projects include:

- 1560 Mesa, LLC: Development of a 7,454-square-foot shell building, a single driveway entrance, and fire alarm system in the community of Nipomo
- LFOA, LLC: Development of a 47,619-square-foot warehouse, septic system, and utilities and pump house in the community of Nipomo
- Warren Family Investment PTP: Development of a 18,187-square-foot shell building, 853-square-foot covered entry, and 416-square-foot equipment mezzanine in the community of Nipomo
- Ball Tagawa Growers PTP: Development of a 65,317.34-square-foot greenhouse in the community of Nipomo
- NF Davis Drier & Elevator Inc: Development of a 5,726-square-foot metal self-storage building and 269-square-foot retaining wall in the community of Nipomo

Additional properties in the community of Nipomo have been subdivided, presumably to facilitate the development of additional single-family homes. These include:

- WG & ONA Dana Properties, LLC: Subdivision of a single parcel into 21 new lots in the community of Nipomo
- Thomas and Brenda Robbins: Subdivision of a single parcel into two new lots in the community of Nipomo
- Peoples Self-Help Housing Corporation: Subdivision of a single parcel into 10 new lots for workforce housing in the community of Nipomo
- TRI-M Rental Group, LLC: Subdivision of a 139.1-acre parcel into three new parcels in the community of Nipomo

Several of the projects occur on or in the vicinity of a limited number of potential mitigation areas for Burton Mesa chaparral on the Nipomo Mesa (Figure 4.4-14). Each project individually may not have a significant impact on this natural community or the plant species that rely on it, such as mesa horkelia, Nipomo Mesa ceanothus, and sand mesa manzanita. However, considered collectively with the proposed project, these projects could potentially be significant in preventing the recovery of this natural community or these species on the Nipomo Mesa.

The construction of the DRSP would result in significant cumulative impacts to Burton Mesa chaparral and coast live oak woodland and the rare plant species that are endemic to these areas, such as the Nipomo Mesa ceanothus and mesa horkelia. The project would induce substantial unplanned population growth on the Nipomo Mesa. The addition of new commercial infrastructure that supports residential developments (e.g., grocery stores, gas stations, etc.) will increase the appeal for additional homes to be built in rural residential areas on the Nipomo Mesa, thus further reducing and degrading remaining sensitive vegetation areas that support threatened and endangered plant populations. Therefore, the project would result in a *significant and unavoidable cumulative impact* to biological resources.

BIO Impact 20 (Class I)
The project would have cumulatively considerable impacts related to biological resources.
Mitigation Measures
<i>Implement Mitigation Measures BIO/mm-1.1 through BIO/mm-1.6, BIO/mm-2.1 through BIO/mm-2.3, BIO/mm-3.1, BIO/mm-4.1 and BIO/mm-4.2, BIO/mm-5.1, BIO/mm-6.1, BIO/mm-7.1, BIO/mm-8.1, BIO/mm-9.1, BIO/mm-11.1, BIO/mm-12.1, BIO/mm-13.1, BIO/mm-14.1, BIO/mm-15.1, BIO/mm-16.1, BIO/mm-17.1 through BIO/mm-17.3, BIO/mm-18.1 through BIO/mm-18.4, and BIO/mm-19.1.</i>
Residual Impacts
<i>Implementation of Mitigation Measures BIO/mm-1.1 through BIO/mm-1.6, BIO/mm-2.1 through BIO/mm-2.3, BIO/mm-3.1, BIO/mm-4.1 and BIO/mm-4.2, BIO/mm-5.1, BIO/mm-6.1, BIO/mm-7.1, BIO/mm-8.1, BIO/mm-9.1, BIO/mm-11.1, BIO/mm-12.1, BIO/mm-13.1, BIO/mm-14.1, BIO/mm-15.1, BIO/mm-16.1, BIO/mm-17.1 through BIO/mm-17.3, BIO/mm-18.1 through BIO/mm-18.4, and BIO/mm-19.1 would not reduce impacts related to loss of oak woodland habitat and the potential loss of some special-status species to a less-than-significant level. Therefore, residual cumulative impacts would be significant and unavoidable (Class I).</i>

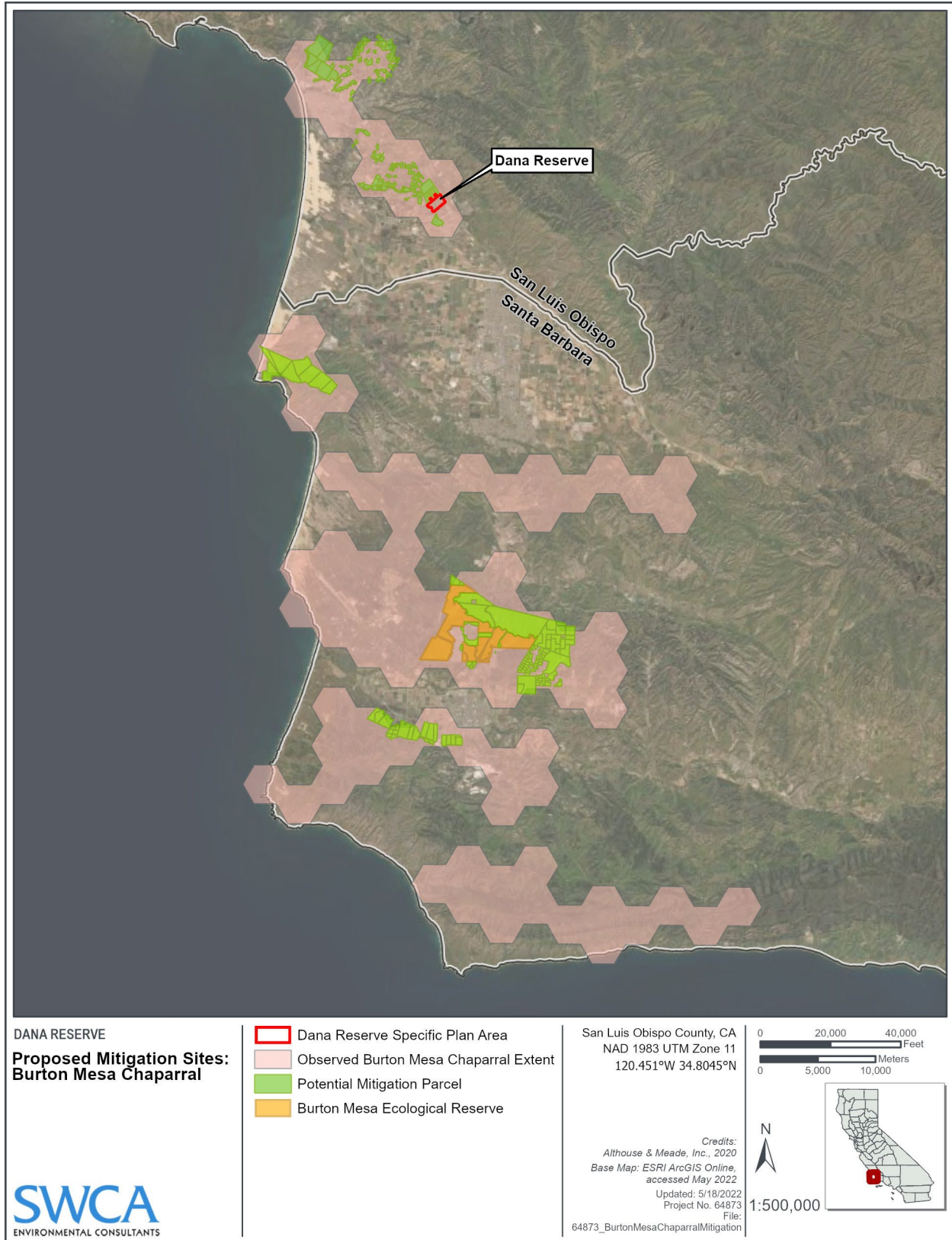


Figure 4.4-14. Potential mitigation sites: Burton Mesa chaparral.