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ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

TERRESTRIAL BIOLOGICAL RESOURCES STUDY

DECOMMISSIONING AND REMEDIATION OF THE CARPINTERIA OIL AND GAS PROCESSING FACILITIES CARPINTERIA, SANTA BARBARA COUNTY, CALIFORNIA

Project No. 2002-5211

Prepared for:

Chevron West Coast Decommissioning Program
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1.0 REPORT SUMMARY

This Terrestrial Biological Resources Study (Study) has been prepared on behalf of Chevron U.S.A. Inc. (Chevron) for the Carpinteria Oil and Gas Processing Facilities (Project Site). The Project Site is divided into 12 Operational Areas, as listed in Table 1, and presented in Figure 1. The Study is a compilation of biological survey and biological monitoring data collected at different portions of the Project Site from 1998 (as originally documented in 2004) present in support of various operational, maintenance, demolition, and interim soil cleanup activities conducted onsite.

This survey includes the Onshore Processing Facility both north and south of the Union Pacific Railroad right-of-way out to the edge of the bluffs along its southern boundary. The beach crossing, intertidal and offshore pipeline corridor areas are addressed in a separate study. Current conditions at the Project Site are presented in this Study, unless otherwise indicated for historical context. Where appropriate, the inventory of biological resources at the Project Site is denoted by which of the Operational Areas each resource was observed at or is expected to occur.

Table 1. Operational Areas of the Project Site (in alphabetical order)

Name	Description
Buffer Zone	Mostly undeveloped, but actively managed open-space and a City-designated Environmentally Sensitive Habitat Area.
Chevron Pipeline Area	Comprised mainly of a large, former oil storage tank and earthen containment basin.
Drainage Area No. 4	Contiguous with the Buffer Zone at its lower extent and a City-designated Environmentally Sensitive Habitat Area. Has undergone substantial revegetation efforts in the last decade.
Former Marketing Terminal Area	Mostly developed, but also contains a concrete drainage ditch, and has undergone substantial revegetation efforts in its southern portion.
Former Nursery Area	Mostly undeveloped, but contains a remnant portion of asphalt road, historically cultivated, but fallow for over 20 years, and was seeded with annual grasses and native herbs in 2012.
Former Sandblast Area	Mostly undeveloped, having undergone past remediation and revegetation.
Main Plant Area	Entirely developed, with various tree windrow divisions.
MSRC Lease Area	Entirely developed, bordered by tree windrows.
Peninsula Area	Northeast access route beneath tree windrows.
Pier Parking Lot	Mostly developed bordered by Tar Pits Park and Carpinteria Bluffs Trail revegetation.
Pipeline Bluffs Crossing Area	Within or adjacent to eastern extent of Tar Pits Park and Carpinteria Bluffs Trail.
Shop and Maintenance Area	Mostly developed, with ornamental or native (planted) trees.

2.0 SETTING

2.1 REGIONAL SETTING

The Project Site is in the coastal zone within the City of Carpinteria in southeastern Santa Barbara County, California. The Project Site is bounded by the beach/coastal strand adjoining the Santa Barbara Channel, an east-west trending channel in the eastern Pacific Ocean. The Project Site is located on the coastal plain of Carpinteria Valley, adjacent to open space and agricultural lands. However, much of the area surrounding the Project Site has been developed into residential land uses adjacent to or within remnants of coastal scrub, annual grasslands or mature, mixed woodland areas (e.g., planted and native trees consisting of eucalyptus, sycamore, cottonwood, cypress, pine, and oak, and willow trees). The coastal plain is bordered to the north by the Santa Ynez Mountains, an east-west trending mountain range, which drains small, steep watersheds onto the coastal terrace. Carpinteria Creek is located approximately 0.5 miles west of the Project Site and has been designated as an Environmentally Sensitive Habitat Area (ESHA). Other biologically important areas include the Carpinteria Salt Marsh (located approximately 1.5 miles to the northwest) and Carpinteria Bluffs (located approximately 1,500 feet to the east).

2.2 APPLICABLE CITY GENERAL PLAN POLICIES

The City of Carpinteria General Plan and Local Coastal Plan (2003) identified portions of the Project Site as being part of the Carpinteria Bluffs ESHA, including the Buffer Zone, Pier Parking Lot, Former Sand Blast Area, and Pipeline Bluffs Crossing Area. In addition, the eucalyptus windrow bordering the eastern edge of the Project Site and the agricultural field east of the Project Site were mapped as ESHA in the General Plan and Local Coastal Plan. Note, however, that portions of some of these areas are developed and the General Plan and Local Coastal Plan states, “the designations of the land use plan are not definitive and are to be supplemented with subsequent program and project level resources study and mapping.”

According to the City of Carpinteria General Plan 2019 Annual Progress Report (accepted May 11, 2020), “the City’s Land Use Map (2016) designates environmentally sensitive habitat areas within and surrounding Carpinteria. These natural areas are often protected as open space and/or recreation zones, include the bluffs, wetlands, salt marsh, beaches, tidelands, subtidal reefs, harbor seal rookery and haulouts, creekways and riparian habitats, native plan communities, and butterfly habitat.” The City’s Land Use Map’s Open Space/Recreation land use designation presumably delineates the ESHA boundaries within the Project Site to currently be limited to the Buffer Zone and Pipeline Bluffs Crossing Area. The remaining areas listed above formerly as ESHA, in addition to other developed portions of the Project Site that were formerly not designated ESHA are zoned as Coastal Dependent Industry or Planned Unit Development.

Objective OSC-1 of the City of Carpinteria General Plan and Local Coastal Plan is to “Protect, preserve and enhance local natural resources and habitats.” This includes prohibiting

activities that could damage or destroy ESHA, and establishing and supporting preservation and restoration programs for ESHA. Objective OSC-1 includes a list of Implementation Policies requiring compliance with the California Environmental Quality Act (CEQA), and maintaining an ESHA Overlay zoning district intended to provide maximum protection to sensitive resources. The ESHA Overlay district applies to any parcel identified as ESHA either on an official resource map adopted by the City or through the City's development review process, any parcel meeting the ESHA criteria provided in the General Plan and Local Coastal Plan, and any parcel located within 250 feet of a parcel so designated or determined to be ESHA.

Objective OSC-2 of the City of Carpinteria General Plan and Local Coastal Plan is to "Preserve and restore the natural resources of the Carpinteria Bluffs." Policy OSC-2i under Objective OSC-2 states:

> "Preserve all windrow trees as one part of a contiguous and naturally preserved open space system across the whole of the Carpinteria Bluffs. Thinning, pruning and removal of trees shall be limited to what is necessary to maintain the trees in a healthful condition and to remove any hazardous condition. When a tree is approved by the City for removal, it shall be required to be replaced at a ratio appropriate to ensure infill of any gap created in the windrow and with a tree type and size to be approved by the City. Replacement trees that fail to survive within the first five years after planting shall be replaced. Planting of native trees is encouraged as are programs for phased removal and replacement of tamarisk windrows in favor of native tree windrows. Development or other activity proposed on parcels including windrows shall be setback a minimum of 10 feet from the drip line of the trees and shall not result in compacting of soil or other potential damage to the trees' root system or water source."

According to the City of Carpinteria Guidelines for the Implementation of the California Environmental Quality Act (CEQA) for impacts to biological resources, specimen trees are defined in the City's Municipal Code as:

> "those with a diameter of at least six inches measured four feet above the ground with a minimum height of at least six feet. For trees that do not have a single trunk, the diameter of all upright woody stems should be combined for the measurement of the diameter…All native tree species, regardless of size, should be considered to be biologically valuable. In particular, young oak trees which do not meet the definition of specimen trees are a significant biological resource due to declining oak populations."

2.3 LOCAL SETTING

2.3.1 Trees

Based on the importance of certain tree windrows expressed in the City's General Plan and Local Plan Policy OSC-2i and City Guidelines, a tree inventory was completed in 2004 for the interim remediation measures conducted within the Buffer Zone (including Drainage Area

No. 4) and Former Nursery Area. It was noted at the time that most of the oaks were saplings, 1 to 3 inches in diameter at breast height, and the largest oak was only 12 inches in diameter at breast height. Since that time, many of these trees within the Buffer Zone have grown in stature or have sustained their windrow composition and areal coverage. Notably, however, many of the Monterey pine (*Pinus radiata*) trees have naturally died off and have been felled to eliminate safety hazards. Recent vegetation management of a 30-foot-wide swath along the western fence line of the Former Nursery Area and Buffer Zone for defensible space against fire also removed two (2) Mexican fan palm (*Washingtonia robusta*) trees. To obtain an accurate tally of all the trees currently present within the Project Site, a follow-up inventory of all the remaining Operational Areas was completed in April 2021. Table 2 provides the current totals of live tree quantities per species at the Project Site. Additional information on tree windrows is provided in the Vegetation section below.

Table 2. Tree Inventory of the Project Site

Common Name	Scientific Name	Tally (2021)	Origin
Blue gum	*Eucalyptus globulus*	677	Non-native, planted, some on-site reproduction
Monterey pine	*Pinus radiata*	42	Introduced, planted
Aleppo pine	*Pinus halepensis*	2	Non-native, planted
Monterey cypress	*Cupressus macrocarpa*	38	Introduced, planted
Coast live oak	*Quercus agrifolia*	225	Native, colonized site, planted, on-site reproduction
Western sycamore	*Platanus racemosa*	84	Native, planted, on-site reproduction
Arroyo willow	*Salix lasiolepis*	51	Native, colonized site
Mexican fan palm	*Washingtonia robusta*	4	Non-native, colonized site
Norfolk Island pine	*Araucaria heterophylla*	1	Non-native, planted
Victorian box	*Pittosporum undulatum*	31	Non-native, planted
Myoporum	*Myoporum laetum*	10	Non-native, planted
Brazilian pepper	*Schinus terebinthifolius*	5	Non-native, planted
Oregon ash	*Fraxinus latifolia*	9	Introduced, planted
Athel tamarisk	*Tamarix aphylla*	93	Non-native, planted
Dawn redwood	*Metasequoia glyptostroboides*	7	Non-native, planted
Avocado	*Persea americana*	5	Non-native, planted
Sydney golden wattle	*Acacia longifolia*	12	Non-native, planted
Chinese elm	*Ulmus parvifolia*	7	Non-native, planted
Toyon	*Heteromeles arbutifolia*	135	Native, planted, on-site reproduction
Various fruit	*Not specified*	6	Non-native, planted
Other ornamental	*Not specified*	4	Non-native, planted
Blue elderberry	*Sambucus nigra ssp. caerulea*	52	Native, planted, on-site reproduction
Total:		**1,500**	

2.3.2 Vegetation

The majority of the Project Site has been historically cleared for various oil and gas industrial or municipal purposes or was planted with fruit/nut trees and landscaping trees (Buffer Zone) or nursery stock (Former Nursery Area), and thus is highly disturbed from a biological perspective. Vegetation, where present, primarily consists of stands of non-native trees and non-native grasses or ruderal fields, with exception to several native plant restoration areas within Drainage Area No. 4, the southern end of the Former Marketing Terminal Area, the entrance to the Pier Parking Lot, and at the Former Sandblast Area. Native scrub and non-native iceplant mats are also present along the bluffs to the east and west of the Pier Parking Lot. The following paragraphs describe on-site vegetation, classify each vegetation type to the extent feasible according to the Manual of California Vegetation, Second Edition (MCV2, Sawyer et al. 2009), and identify plant species of which they are composed. Table 3 provides the acreage and locations of each vegetation type throughout the Project Site. Figures 2a through 2c provide a vegetation map of the Project Site.

Table 3. Vegetation of the Project Site

General Category	MCV2 Classification	Onsite Acreage	Present at:
Tree Windrows	*Eucalyptus globulus* or *camuldulensis* Semi-Natural Woodland Stands (Eucalyptus groves)	7.6	Buffer Zone, Former Nursery Area, Shop & Maintenance Area, MSRC Lease Area, Peninsula Area, Drainage Area No. 4, Former Marketing Terminal Area, Chevron Pipeline Area, and Main Plant Area.
Tree Windrows	*Tamarix* spp. Semi-natural Shrubland Stands (Tamarisk thickets)	0.6	Main Plant Area, and MSRC Lease Area.
Mixed Woodland	*Quercus agrifolia* Woodland Alliance (Coast live oak woodland)	4.7	Buffer Zone, Shop & Maintenance Area, and Drainage Area No. 4.
Mixed Woodland	*Platanus racemosa* – *Quercus agrifolia* Woodland Alliance (California sycamore woodlands)	0.9	Buffer Zone, and Former Sandblast Area.
Arroyo Willow Thicket	*Salix lasiolepis* Shrubland Alliance (Arroyo willow thickets)	0.4	Drainage Area No. 4, Chevron Pipeline Area, Pipeline Bluff Crossing Area, and Former Sandblast Area.
Coastal Scrub	*Artemisia californica* Shrubland Alliance (California sagebrush scrub)	0.6	Buffer Zone, Drainage Area No. 4, and Former Marketing Terminal Area.
Coastal Scrub	*Atriplex lentiformis* Shrubland Alliance (Quailbush scrub)	1.8	Pipeline Bluff Crossing Area, Pier Parking Lot, and Former Sandblast Area.
Coastal Scrub	*Baccharis pilularis* Shrubland Alliance (Coyote brush scrub)	2.1	Pier Parking Lot, and Former Sandblast Area.
Coastal Scrub	*Baccharis salicifolia* Shrubland Alliance (Mulefat thickets)	0.06	Drainage Area No. 4.

Table 3. (Continued)

General Category	MCV2 Classification	Onsite Acreage	Present at:
Coastal Scrub	*Isocoma menziesii* Shrubland Alliance (Menzies's golden bush scrub)	0.4	Pier Parking Lot.
Chaparral	*Heteromeles arbutifolia* Shrubland Alliance (Toyon chaparral)	0.9	Drainage Area No. 4.
Chaparral	*Rhus integrifolia* Shrubland Alliance (Lemonade berry scrub)	0.7	Pier Parking Lot, and Former Sandblast Area.
Chaparral	*Sambucus nigra* Shrubland Alliance (Blue elderberry stands)	0.2	Former Marketing Terminal Area.
Iceplant Mat	*Carpobrotus edulis* or Other Ice Plants Semi-Natural Herbaceous Stands (Ice plant mats)	1.6	Pipeline Bluff Crossing Area, and Pier Parking Lot.
Annual Grassland	*Brassica (nigra)* and Other Mustards Semi-Natural Herbaceous Stands (Upland mustards)	6.6	Former Nursery Area, Former Marketing Terminal Area, and Chevron Pipeline Area.
Annual Grassland	*Bromus diandrus* or *hordaceous* Semi-Natural Herbaceous Stands (Annual brome grasslands)	2.5	Former Nursery Area, Former Marketing Terminal Area, and Chevron Pipeline Area.
Developed Land	Not specified (mostly bare ground or patchy ruderal vegetation)	23.9	Main Plant Area, Shop and Maintenance Area, and Chevron Pipeline Area.

In support of soil remediation activities previously conducted within the Buffer Zone, Drainage Area No. 4, Former Nursery Area, and Former Sandblast Area, a botanical survey report was formerly prepared in May 2011. A botanical inventory derived from this survey has been revised to include observations of additional species also noted at the remaining portions of the Project Site and is provided in Attachment A of this Study in subsequent years, including a follow-up botanical survey and wetland delineation (documented separately) of the entire Project Site in April 2021. A total of 163 plant species were observed at the Project Site, including 51 (31 percent) native species and 112 (69 percent) non-native or introduced species to the region.

Tree Windrows (MCV2: *Eucalyptus globulus* or *camaldulensis* Semi-Natural Woodland Stands [Eucalyptus groves]; *Tamarix* spp. Semi-natural Shrubland Stands [Tamarisk thickets]). Tree windrows comprised mostly of blue gum (*Eucalyptus globulus*), and to a lesser degree of athel tamarisk (*Tamarix aphylla*), occur between the Buffer Zone and Former Marketing Terminal Area, along both sides of Dump Road, on both sides of the MSRC Lease Area, and along the east edge of the entire Project Site from the Peninsula Area, south

along the Main Plant Area. The eastern edge of the Former Marketing Terminal Area also supports a row of Chinese elm (*Ulmus parvifolia*) trees. Some of the more densely planted stands provide cover, roosting and nesting habitat for a number of bird species (e.g., red-tailed hawk, Anna's hummingbird, and yellow-rumped warbler), and historically, the windrow between the Buffer Zone and Former Marketing Terminal Area has supported roosting Monarch butterflies, particularly on the Buffer Zone (west) side of the windrow. Tree windrows were first introduced at the Project Site as windbreaks for agricultural fields, and later to screen oil and gas facilities.

Mixed Woodland (MCV2: *Quercus agrifolia* Woodland Alliance [Coast live oak woodland]; *Platanus racemosa – Quercus agrifolia* Woodland Alliance [California sycamore woodlands]). Trees and intervening areas of non-native grassland occur within the Buffer Zone, form a woodland community. The trees include coast live oak (*Quercus agrifolia*) and western sycamore (*Platanus racemosa*), but are also intermixed with Monterey pine, Monterey cypress (*Hesperocyparis macrocarpa*) trees, or abut Eucalyptus groves or tree windrows within the Buffer Zone. Open areas between tree clusters support perennial rye grass (*Festuca perennis*), slender wild oats (*Avena barbata*), and hare barley (*Hordeum murinum*). The trees provide cover and roosting habitat for a number of bird species and historically for Monarch butterflies. Grass areas provide foraging habitat for small reptiles and mammals, as well as birds. This area was planted to provide a buffer between the Former Marketing Terminal and the Concha Loma residential neighborhood to the west.

Smaller, more isolated patches of mixed woodland trees occur along the margins of the Shop and Maintenance Area, supporting coast live oak, Oregon ash and non-native dawn redwood trees abutting the tamarisk and eucalyptus windrows. Stands of non-native trees are labeled as Ornamental on the attached vegetation map.

Coastal Scrub and Chaparral (MCV2: *Artemisia californica* Shrubland Alliance [California sagebrush scrub]; *Atriplex lentiformis* Shrubland Alliance [Quailbush scrub]; *Baccharis pilularis* Shrubland Alliance [Coyote brush scrub]; *Baccharis salicifolia* Shrubland Alliance [Mulefat thickets]; *Isocoma menziesii* Shrubland Alliance [Menzies's golden bush scrub]; *Heteromeles arbutifolia* Shrubland Alliance [Toyon chaparral]; *Rhus integrifolia* Shrubland Alliance [Lemonade berry scrub]; *Sambucus nigra* Shrubland Alliance [Blue elderberry stands]). Portions of the southern end of the Project Site support remnant natural stands and restored areas of coastal scrub and chaparral communities, including at Drainage Area No. 4, the southernmost portion of the Former Marketing Terminal Area, the entrance to the Pier Parking Lot, Former Sandblast Area, and Pipeline Bluffs Crossing Area. Dominant or co-dominant species in these areas include coyote brush (*Baccharis pilularis*), bush sunflower (*Encelia californica*), purple sage (*Salvia leucophylla*), toyon (*Heteromeles arbutifolia*), quailbush (*Atriplex lentiformis*), California sagebrush (*Artemisia californica*), Menzies's golden bush (*Isocoma menziesii*), blue elderberry (*Sambucus nigra ssp. caerulea*) and lemonadeberry (*Rhus integrifolia*).

Notably, in the Pipeline Bluffs Crossing Area are monotypic and mixed stands of quailbush scrub, mixed stands of coyote brush scrub and Menzies's golden bush scrub, which

all have undergone some level of disturbance. In Drainage Area No. 4 are a planted mulefat thicket, toyon chaparral, and naturally colonized California sagebrush scrub. The southern portion of the Former Marketing Terminal Area supports a mature thicket of blue elderberry, lemonadeberry and California sagebrush. These shrub-dominated vegetation types provide cover, roosting and nesting habitat for a number of bird, reptile and small mammal species.

Iceplant Mat (MCV2: *Carpobrotus edulis* or Other Ice Plants Semi-Natural Herbaceous Stands [Ice plant mats]). The Pipeline Bluffs Crossing Area supports a large mat of non-native iceplant (*Carpobrotus edulis* and *Mesembryanthemum* sp.), which, where present, has frequently become a naturalized and typically dominant component of bluff scrub communities.

Annual Grasslands and Ruderal Vegetation (MCV2: *Brassica* (*nigra*) and Other Mustards Semi-Natural Herbaceous Stands [Upland mustards]; *Bromus diandrus* or *hordaceous* Semi-Natural Herbaceous Stands [Annual brome grasslands]. The Main Plant Area, Shop and Maintenance Area, and Chevron Pipeline Area, which are all formerly graded, bermed, or degraded asphalt, supports patches of predominantly non-native herbaceous species such as summer mustard (*Hirschfeldia incana*), red brome (*Bromus madritensis ssp. rubens*), ripgut brome (*Bromus diandrus*), red-stem filaree (*Erodium cicutarium*), onionweed (*Asphodelus fistulosis*), bristly ox-tongue (*Helminthotheca echioides*), cheeseweed (*Malva parviflora*), perennial ryegrass, freeway iceplant, Terracina spurge (*Euphorbia terracina*), smilo grass (*Stipa mileacea*), bur-clover (*Medicago polymorpha*) and English plantain (*Plantago lanceolata*). Native species were also observed throughout these areas, but in lesser concentration, including horseweed (*Erigeron canadensis*), telegraph weed (*Heterotheca grandiflora*), coyote brush, and small-flowered evening primrose (*Camissoniopsis micrantha*).

The Former Nursery Area supports an assemblage of weedy non-native species typical of repeated disturbance. Dominant species originally observed in 2004 included cheeseweed, wild radish (*Raphanus sativus*) and summer mustard. The Former Nursery Area was hydroseeded with a native herbaceous seed mix following removal of pesticide-affected soils in 2012 but has since become mostly recolonized with its former non-native dominants, in addition to the emergence of succulent lupine (*Lupinus succulentus*) and California poppy (*Eschscholzia californica*) included in the seed mix. Similar conditions supporting non-native annual grasses and other herbaceous cover (e.g., English plantain and Terracina spurge, but little or no native species) are present in the Former Marketing Terminal Area immediately south of its developed portion.

Arroyo Willow Thicket (MCV2: *Salix lasiolepis* Shrubland Alliance [Arroyo willow thickets]). The Project Site supports three (3) small patches of arroyo willow thicket with arroyo willow (*Salix lasiolepis*) as the dominant tree species in the overstory. Understory vegetation typically includes western ragweed (*Ambrosia psilostachya*), tall flatsedge (*Cyperus eragrostis*, in wetter years), bristly ox-tongue (*Picris echioides*), and/or curly dock (*Rumex crispus*) or is bare of understory vegetation due to a thick, closed canopy. This vegetation type provides cover, roosting and nesting habitat for a number of bird, reptile and small mammal species, including at least one (1) big-eared woodrat nest at the Former Sandblast Area.

2.3.3 Special-Status Plant Species

Several special-status plant species have been identified in the project area by a literature search conducted by Padre and review of the California Department of Fish and Wildlife Natural Diversity Data Base (CNDDB, 2021) for the Carpinteria, Santa Barbara, White Ledge Peak, and Pitas Point 7.5-minute USGS quadrangle maps. Table 4 below describes these plants, their habitat associations, listing status, and nearest known location. Special-status plant species observed or reported at the Project Site include southwestern spiny rush (*Juncus acutus ssp. leopoldii*, a CNPS rare plant rank 4 species) and yerba mansa (*Anemopsis californica*, a regionally rare species within Santa Barbara County). Monterey cypress (*Hesperocyparis macrocarpa*, a CNPS rare plant rank 1.2 species where naturally occurring) is also present in multiple locations at the Project Site, but these individuals are planted or are seedling and sapling recruits, and are not considered rare or endangered due to their introduced origin.

Table 4. Special-Status Plant Species of the Carpinteria Area

Common Name (*Scientific Name*)	Habitat Associations	Status	Nearest Known Location
Coulter's saltbush (*Atriplex coulteri*)	Coastal bluff scrub, coastal dunes, coastal scrub, ocean bluffs, ridgetops, as well as alkaline areas	CRPR 1B.2	Carpinteria, along ocean bluff (CNDDB, 2021);
Nuttall's scrub oak (*Quercus dumosa*)	Closed-cone coniferous forest, chaparral, coastal scrub.	CRPR 1B.1	Toro and Santa Monica Canyons, northwest of Carpinteria (CNDDB, 2021);
Late-flowered Mariposa lily (*Calochortus weedii var vestus*)	Chaparral, dry, open coastal woodland.	CRPR 1B.2	Franklin Canyon, north of Carpinteria (CNDDB, 2021);
Sonoran maiden fern (*Thelypteris puberula var sonorensis*)	Meadows and seeps, along streams	CRPR 2.2	Romero Canyon, Santa Ynez Mountains (CNDDB, 2021);
Southern tarplant (*Centromadia parryi ssp australis*)	Marshes and swamps, valley and foothill grassland, often in disturbed sites near the coast.	CRPR 1B.1	Alongside rail lines, Pitas Point Quad (CNDDB, 2021);
Cliff malacothrix (*Malacothrix saxitilis ssp. saxitilis*)	Coastal bluff scrub, coastal scrub	CRPR 4	Carpinteria Bluffs (Padre, 2004)
Woolly sea-blite (*Suaeda taxifolia*)	Margins of salt marshes	CRPR 4	Carpinteria Bluffs (Padre, 2004), Berms in the Carpinteria Salt Marsh (SBCFCWCD, 2003);
Southern California black walnut (*Juglans californica*)	Chaparral, cismontane woodland, coastal scrub/alluvial	CRPR 4	Carpinteria Creek (Padre, 2002b)
Salt marsh bird's beak (*Cordylanthus maritimus ssp. maritimus*)	High marsh habitats with sandy substrate	FE, SE, CRPR 1B.2	Carpinteria Salt Marsh (SBCFCWCD, 2003);
Coulter's goldfields (*Lasthenia glabrata*)	Margins of salt pans	CRPR 1B.1	Carpinteria Salt Marsh (SBCFCWCD, 2003);

Table 4. (Continued)

Common Name (*Scientific Name*)	Habitat Associations	Status	Nearest Known Location
Estuary sea-blite (*Suaeda esteroa*)	Coastal salt marshes	CRPR 1B.2	Presumed extirpated from Carpinteria Salt Marsh (SBCFCWCD, 2003).
Red sand verbena (*Abronia maritima*)	Sand dune habitats	CRPR 4	Re-established in sand dunes at Carpinteria Salt Marsh Nature Park (Padre, 2004)
Southwestern spiny rush (*Juncus acutus ssp. leopoldii*)	Fringes or transition habitats in salt or brackish marshes	CRPR 4	Onsite: Pipeline Bluffs Crossing Area (Padre, 2021)
Yerba mansa (*Anemopsis californica*)	Transition habitats along edges of marshes	Regionally Rare	Onsite: Pipeline Bluffs Crossing Area (Padre, 2021)
Watson's saltbush (*Atriplex watsonii*)	Transition habitats along edges of marshes	Regionally Rare	Carpinteria Salt Marsh (SBCFCWCD, 2003);
Alkali barley (*Hordeum depressum*)	Salt marsh transition and grassland habitats	Regionally Rare	Carpinteria Salt Marsh (SBCFCWCD, 2003);
Prostrate hutchinsia (*Hutchinsia procumbens*)	High salt marsh habitats	Regionally Rare	Carpinteria Salt Marsh (SBCFCWCD, 2003);
Basket rush (*Juncus textilis*)	Brackish marsh habitats	Regionally Rare	Drainage ditches along Sand Point Road, and successfully established at Carpinteria Salt Marsh Nature Park (SBCFCWCD, 2003);
Seaside arrowgrass (*Triglochin coccina*)	High salt marsh habitats	Regionally Rare	Carpinteria Salt Marsh (SBCFCWCD, 2003);
Ventura marsh milk-vetch (*Astragalus pycnostachys var. lanosissimus*)	Coastal salt marshes, rarely near seeps on sandy bluffs	FE, SE, CRPR 1B.1	Historically mapped in the area of the City of Ventura; possibly extirpated (CNDDB, 2021). No sighting records for Carpinteria.
Davidson's saltscale (*Atriplex serenana var. davidsonii*)	Coastal bluff, coastal scrub	CRPR 1B.2	Hendry's Beach (aka, Arroyo Burro Beach) (CNDDB, 2021)
Santa Barbara morning glory (*Calystegia sepium ssp. binghamiae*)	Coastal marsh	CRPR 1A	Burton Mound, Santa Barbara. Possibly extirpated (CNDDB, 2021)
Umbrella larkspur (*Delphinium umbraculorum*)	Cismontane woodland, mesic sites, 400 to 1600 m (1,300 to 5,300 ft) elevation	CRPR 1B.3	Escondido Canyon, Los Padres National Forest (CNDDB, 2021)
Ojai fritillary (*Fritillaria ojaiensis*)	Broadleaf forest, chaparral, lower montane coniferous forest	CRPR 1B.2	Santa Ynez Mountains, west of Ojai (CNDDB, 2021)
Mesa horkelia (*Horkelia cuneata ssp. puberula*)	Chaparral, cismontane woodland, coastal scrub, 70 to 810 m (230 to 2,700 ft)	CRPR 1B.1	Cold Spring Trail, near Santa Barbara (CNDDB, 2021)
Santa Barbara honeysuckle (*Lonicera subspicata var. subspicata*)	Chaparral, cismontane woodland, coastal scrub, 35 to 1,000 m (110 to 3,300 ft)	CRPR 1B.2	San Roque Canyon, Los Padres National Forest (CNDDB, 2021)

Table 4. (Continued)

Common Name (*Scientific Name*)	Habitat Associations	Status	Nearest Known Location
Gambel's water cress (*Nasturtium gambelii*)	Freshwater and brackish marshes at the edges or lakes or streams	FE, ST, CRPR 1B.1	Historically mapped in vicinity of Santa Barbara, but extirpated (CNDDB, 2021)
Peninsular nolina (*Nolina cismontane*)	Chaparral and coastal scrub, 140 to 1,275 m (460 to 4,200 ft)	CRPR 1B.2	Coyote Creek in vicinity of Lake Casitas (CNDDB, 2021)
Southern jewel-flower (*Streptanthus campestris*)	Chaparral, lower montane coniferous forest, pinyon-juniper forest	CRPR 1B.3	Divide Peak, Santa Ynez Mountains (CNDDB, 2021)
Santa Ynez false lupine (*Thermopsis macrophylla*)	Chaparral	CRPR 1B.3	Camino Cielo Road & La Cumbre Lookout Road, Santa Ynez Mountains (CNDDB, 2021)
Monterey cypress (*Hesperocyparis macrocarpa*)	Headlands and sheltered areas near the coast	CRPR 1B.2	Onsite (planted), but outside of its natural geographic range.

Status codes: CNPS Rare Plant Rank (CRPR) 1A Presumed extinct in California
CRPR 1B Plants rare, threatened or endangered in California
CRPR 2 Plants rare, threatened or endangered in California, more common elsewhere
CRPR 4 Plants of limited distribution
.1 - Seriously endangered in California.
.2 – Fairly endangered in California.
.3 – Not very endangered in California.
FE Federal Endangered
SE State Endangered
ST State Threatened
Regionally Rare: According to the Santa Barbara Botanic Garden

2.3.4 Wildlife

A list of wildlife species observed at the Project Site is provided in Attachment B. A majority of these wildlife sightings occurred in the Buffer Zone, with much lower biodiversity observed in the more developed portions of the Project Site.

Amphibians and Reptiles. Baja California tree frogs were observed in the drainage within the Buffer Zone in May 1998 (Padre, 2002a), were heard calling from the Project Site during the November 2004 field survey, and again in February 2012. Western toad was also observed in the Buffer Zone in 2012. Both species are expected to currently occur at the Project Site, particularly in lesser developed areas.

Western fence lizard and side-blotched lizard were commonly observed throughout the Project Site, typically using gopher and ground squirrel buffers as refugia. Other reptiles less commonly observed within the Buffer Zone included gopher snake, alligator lizard, and ringneck snake as recently as winter 2021. California king snake may also be expected to occur at the Project Site.

Birds. Tree clusters at the Project Site are known to be areas of high avian diversity. Grasslands in the Project Site are used for foraging and hunting by several species as well. Birds observed during numerous surveys from 1998 to 2021 by Padre collectively included a total of 58 species. Bird activity primarily occurs in the trees or areas of scrubby vegetation. Birds commonly observed included (in order of decreasing abundance) yellow-rumped warbler, bushtit, Anna's hummingbird, mourning dove, northern flicker, black phoebe, Hutton's vireo, northern mockingbird, American crow, and red-tailed hawk. Evidence of roosting by great horned owl was observed within the Buffer Zone in 1998 (ADL, 1999), owl pellets were found onsite in 2012, and a great horned owl fledgling was observed in the Buffer Zone in 2019 (Padre pers. obs., 2019). Cooper's hawk and red-shouldered hawk have also been commonly observed roosting and foraging in the Buffer Zone, but no nests have been recorded at the Project Site.

Observations of nesting activity by passerines have included Anna's hummingbird, California towhee, cliff swallow, and house finch, some of which were on manufactured structures or equipment, or in trees near those items. Hawks are commonly observed roosting in large trees within the Buffer Zone and adjacent portions of the Former Nursery Area. At least three (3) raptor nests of varying sizes (one of which was active as recently as 2021) were observed at the Project Site in various years. A pair of mating red-tailed hawks was observed in the eucalyptus treetop above the MSRC Lease Area in April 2021.

Other species known from the area (e.g., Carpinteria Bluffs) include white-tailed kite, sharp-shinned hawk, barn owl, turkey vulture, and loggerhead shrike, which may forage at the Project Site.

Mammals. Ground squirrel and pocket gopher burrows were commonly observed throughout the Project Site. Raccoon, coyote, and domestic dog tracks have been observed within the Buffer Zone during numerous field surveys. An individual coyote was also directly observed in November 2020 within the Buffer Zone. Red fox has been commonly observed in the Buffer Zone and Chevron Pipeline Area in numerous years. Domestic cat is also frequently observed in the Buffer Zone, returning to homes along Arbol Verde Drive. A single, big-eared woodrat nest is present in the arroyo willow thicket at the bluff's edge within the Former Sandblast Area. Other mammals expected to occur at the Project Site include black rat, deer mouse, and house mouse.

Invertebrates. Monarch butterfly (*Danaus plexippus*) is the only insect species in the world that is known to exhibit long-distance, seasonal migrations. These butterflies maintain a summer range across North America. Milkweeds (*Asclepias* spp.) serve at their main source of food, and are where females lay their eggs. Every fall, the Monarch butterflies fly west and south to over-wintering sites in coastal California and central Mexico.

Groves of eucalyptus and Monterey pine serve as the predominant Monarch butterfly over-wintering sites in California. Other trees including coast live oak, sycamore, and Monterey cypress also serve as over-wintering habitat. A protective microclimate is typically provided by densely clustered trees and understory vegetation (i.e., shrubs, grasses) at over-wintering roost sites selected by Monarch butterflies. These sites typically provide a degree of protection from

wind and storms, and exhibit more stable temperature, wind velocity, humidity, and sunlight intensity compared to adjacent areas. Monarch butterflies are known to move around selected groves of trees depending on variations in the microclimatic conditions.

The same over-wintering sites, and even the same trees, are often used year after year by Monarch butterflies. However, wide variations in the use of over-wintering sites do occur. Some sites may be used only periodically, while others are used every or almost every year. The number of Monarch butterflies using a given roost site can fluctuate dramatically on a day-to-day and year-to-year basis. Also, the duration for which a particular site is used can vary. Autumnal roost sites are used only temporarily in the fall by relatively small numbers of butterflies, while permanent roost sites are used for the entire winter by up to tens of thousands of individuals. Autumnal sites are typically abandoned for permanent roost sites in the beginning of the winter. Both types of roost sites are important to Monarch butterflies. However, permanent roost sites are more important, as they sustain the butterfly populations by providing food and protection from the weather through the winter. It is important to note that a given roosting site may serve as an autumnal site one year, and a permanent site in another, and vice versa.

Monarch butterflies are regularly observed at the Project Site during the fall. They also occur in the winter, but may be a result of dispersion from the large Carpinteria Creek overwintering site. A cluster of approximately 50 Monarch butterflies were observed in the blue gum windrow on the east side of Dump Road on October 25, 1990. Many Monarch butterflies were observed flying over the Project Site, but no clusters were found on January 6, 1991 (Calvert, 1991). Clusters of Monarchs totaling over 2,000 individuals were observed in the Buffer Zone on November 8, 1998 (ADL, 1999). Approximately 60 Monarchs were observed in the Buffer Zone in February 1999 (Meade, 1999). Padre biologists observed two clusters totaling about 100 Monarchs on a blue gum tree in the Buffer Zone, with another 30 to 50 flying within the Buffer Zone on November 15, 2004. At that time, this site was considered an autumnal roost, possibly a congregation site associated with the overwintering site at Carpinteria Creek.

In fall 2011, Monarch butterflies were observed patrolling the Buffer Zone and began aggregating in October 2011. By January 2012 Monarch butterflies were observed aggregating in at least two trees (blue gum and pine) in excess of approximately 5,000 individuals (by visual estimation). Observations were made of the aggregations moving north (further into the Buffer Zone from its more exposed, southern end) before beginning their dispersal (and potential mating activity) in February 2012 (Padre, 2012). Conversely, in winter 2020/2021, observations were limited to very few patrolling Monarchs and no aggregations at the Buffer Zone or other locations within the Project Site (Padre, 2020 and Padre, 2021a), which may be consistent with a long-term decline in the population abundance at North American overwintering sites. These observations are generally consistent with the Xerces Society Western Monarch Thanksgiving Count at Site 2800 (Oil & Gas Buffer Zone, Carpinteria, Xerces Society, 2020), which observed as many as 5,990 Monarchs in 2016, and steadily declined to observe only three (3) Monarchs in 2020. This decline has led to the petition of the U.S. Fish and Wildlife Service (USFWS) to list the monarch butterfly for protection under the Endangered Species Act of 1973, as

amended, but although warranted for listing, is currently precluded by higher priority listing actions (USFWS, 2020a).

In support of the petition, the U.S. Fish and Wildlife Service (USFWS) conducted a species status assessment (SSA), which analyzed numerous expert predictions of increases or decreases in impacts to western monarchs over the next 20 years (USFWS, 2020b). The SSA determined that predictions of *non-habitat-mediated* climate change effects range from a 6% decrease in impacts due to increases in temperatures potentially improving reproduction, or conversely, to a 50% increase in impacts due to more severe increases in temperatures and precipitation events hindering reproduction and increasing mortality. The SSA also determined that predictions of *habitat-mediated* climate change effects range from an 8% decrease in impacts due to the potential for small increases in milkweed availability in some portions of the range, or conversely to a 65% increase in impacts due to greater losses of monarch habitat from increased temperatures and drought (USFWS, 2020b). From a local perspective, these effects are not markedly apparent due to the mild, coastally influenced weather of the region, and relatively intact condition of vegetation within the Buffer Zone in recent documented history. Thus, the disappearance of aggregating Monarchs at the Buffer Zone may potentially be caused by the effects described above at other sections of their migratory route.

2.3.5 Special-Status Wildlife

Special-status wildlife species listed by CDFW and/or USFWS have the potential to occur in the vicinity of the Project Site. Query or review of the CNDDB (2021) for the Carpinteria, Santa Barbara, White Ledge Peak, and Pitas Point 7.5-minute USGS quadrangle maps, documentation of past onsite biological survey and monitoring activities, sight records from other environmental documents, and range maps including Zeiner et al. (1988, 1990a, 1990b) and Lehman (1994) were used to determine the potential presence of these species. Table 5 lists special-status wildlife species that are known to occur or have the potential to occur at the Project Site.

Table 5. Special-Status Wildlife Species of the Carpinteria/Montecito Area

Common Name (Scientific Name)	Status	Nearest Known Location
Monarch butterfly (*Danaus plexippus*)	SA, PD	On-site (fall and late winter). Buffer Zone supports a historical aggregation site, with as many as 5,990 individuals observed in 2016, but only 3 individuals observed in 2020 (Xerces Society, 2020)
Sandy Beach tiger beetle (*Cicindela hirticollis gravida*)	SA	Carpinteria area (CNDDB, 2021)
Tidewater goby (*Eucyclogobius newberryi*)	FE	Santa Monica Creek, adjacent to Carpinteria Salt Marsh (CNDDB, 2021)
Southern steelhead (*Oncorhynchus mykiss*)	FE, SSC	Carpinteria Creek (Stoecker, 2002)
California newt (*Taricha torosa*)	SSC	Upper Carpinteria Creek (Padre, 2002b), Upper Santa Monica Creek (Padre obs., 2021)

Table 5. (Continued)

Common Name (Scientific Name)	Status	Nearest Known Location
California red-legged frog (*Rana draytonii*)	FT, SSC	Upper Santa Monica Creek (Padre obs., 2020)
Southwestern pond turtle (*Actinemys pallida*)	SSC	Upper Santa Monica Creek (Padre obs., 2020)
Two-striped garter snake (*Thamnophis hammondii*)	SSC	Upper Santa Monica Creek (Padre obs., 2020)
Coast horned lizard (*Phrynosoma coronatum* ssp. *frontale*)	SSC	Known from the region
Light-footed clapper rail (*Rallus longirostris levipes*)	FE, SE	Carpinteria Salt Marsh (CNDDB, 2021)
Belding's savanna sparrow *(Passerculus sandwichensis beldingi)*	SE	Carpinteria Salt Marsh (CNDDB, 2021)
American peregrine falcon (*Falco peregrinus anatum*)	FP (nesting)	Carpinteria Salt Marsh (SBCFCWCD, 2003)
Western snowy plover (*Charadrius alexandrinas*)	FT, SSC	Carpinteria State Beach (eBird, 2021) and Carpinteria Salt Marsh (CNDDB, 2021)
California brown pelican (*Pelecanus occidentalis californicus*)	SA, D	Carpinteria Salt Marsh (SBCFCWCD, 2003). Observed overhead (Padre, 2020)
California least tern (*Sterna antillarum browni*)	FE, SE	Carpinteria Salt Marsh (SBCFCWCD, 2003)
Northern harrier (*Circus cyaneus*)	SSC	Carpinteria Salt Marsh (SBCFCWCD, 2003)
American bittern (*Botaurus lentiginosus*)	SA	Carpinteria Salt Marsh (SBCFCWCD, 2003)
Long-billed curlew (*Numenius americanus*)	WL	Carpinteria Salt Marsh (SBCFCWCD, 2003)
Osprey (*Pandion haliaetus*)	WL	Carpinteria Salt Marsh (SBCFCWCD, 2003)
Merlin (*Falco columbarius*)	WL	Carpinteria Salt Marsh (SBCFCWCD, 2003)
Yellow warbler (*Dendroica petechia*)	SSC (nesting)	Toro Canyon (SAIC, 2000), and Carpinteria Creek (Padre, 2002b); On-site (foraging only in Buffer Zone; Padre, 2012)
Yellow-breasted chat (*Icteria virens*)	SSC (nesting)	Toro Canyon (SAIC, 2000)
White-tailed kite (*Elanus caerulus*)	FP (nesting)	Carpinteria Bluffs (Padre, 2004; eBird, 2021); Carpinteria Salt Marsh (SBCFCWCD, 2003)
Loggerhead shrike *(Lanius ludovicianus)*	SSC (nesting)	Carpinteria Bluffs (Padre, 2004, eBird, 2021)
Cooper's hawk *(Accipiter cooperi*)	WL (nesting)	Carpinteria Creek (Padre, 2002b); On-site (foraging only in Buffer Zone, Padre obs. 2021)
Arroyo toad (*Anaxyrus californicus*)	FE, SSC	Santa Ynez River above Gibralter Reservoir (CNDDB, 2021)

Table 5. (Continued)

Common Name (Scientific Name)	Status	Nearest Known Location
Globose dune beetle (*Coelus globosus*)	SA	Carpinteria sand dunes (CNDDB, 2021)
San Diego desert woodrat (*Neotoma lepida intermedia*)	SSC	North side of SPRR-ROW & US 101, Pitas Point (CNDDB, 2021)
Big free-tailed bat (*Nyctinomops macrotis*)	SSC	Santa Barbara (CNDDB, 2021)
Foothill yellow-legged frog (*Rana boylii*)	SE	Santa Ynez River at Juncal Campground (CNDDB, 2021)
Bank swallow (*Riparia riparia*)	ST	Hendry's Beach (aka Arroyo Burro Beach), Santa Barbara (CNDDB, 2021)
Least Bell's vireo (*Vireo bellii pusillus*)	FE, SE	Santa Ynez River at Juncal Campground (CNDDB, 2021)
Northern California legless lizard (*Anniella pulchra*)	SSC	Carpinteria State Beach (CNDDB, 2021)

Status codes:

FSC	Federal Species of Concern	FE	Federal Endangered
FT	Federal Threatened	SSC	California Species of Special Concern
SA	Special Animal (CDFW)	SE	State Endangered
PD	Petition for ESA listing deferred (USFWS)	ST	State Threatened
D	Delisted from the ESA (USFWS)	WL	Watch List (CDFW)
FP	Fully Protected (CDFW)		

Monarch Butterfly. See discussion under Wildlife.

Sandy Beach Tiger Beetle. This species is recorded in the CNDDB as having been identified in back-dune areas near Carpinteria greater than 20 years ago and is considered extirpated from the area. Suitable back-dune habitats are absent within the Project Site, and based on lack of more recent records, sandy beach tiger beetle is not expected to occur at the Project Site.

Globose Dune Beetle. This species is recorded in the CNDDB as presumed extant along the local fore-dune and hummocky beach communities, including in sand dune areas near Carpinteria. At the Project Site, the bluff cliff directly meets the beach face, and does not support suitable sandy beach dune habitat; therefore, globose dune beetle is not expected to occur at the Project Site.

Southern Steelhead. This species is an anadromous form of rainbow trout, meaning it reproduces in freshwater, but spends much of its life cycle in the ocean, where greater feeding opportunities provide a greater growth rate and size. Steelhead has been divided into 15 evolutionary significant units (ESU) based on similarity in life history, location and genetic markers. Southern steelhead are likely to have greater physiological tolerances to warmer water and more variable conditions in comparison to populations in other ESUs. The southern California ESU includes 16 populations from the Santa Ynez River in the north to San Mateo

Creek in the south. Carpinteria Creek supports a steelhead population, with juveniles seen every year since the 1980's, primarily above the confluence with Gobernador Creek (National Marine Fisheries, 2003). A 28-inch adult female was caught illegally near the Creek mouth on February 27, 2000. Dual-frequency identification sonar (DIDSON) counts have been initiated by CDFW in Carpinteria Creek in 2014, but data are not yet available (National Marine Fisheries Service, 2016). Due to the lack of habitat and barriers between the Project Site and the ocean, this species does not occur at the Project Site.

Tidewater Goby. This species was found in lower Carpinteria Creek in 1995, and in 2009 during the construction of the 8th Street pedestrian bridge (Padre staff personal communication, 2021). However, tidewater gobies have not been collected in the Carpinteria Salt Marsh since 1923, apparently because brackish-water habitats are no longer sustained in the estuary. Due to the lack of habitat and barriers between the site and the ocean, tidewater goby does not occur on the Project Site.

California Newt. This species was observed in upper Carpinteria Creek (Padre, 2002b), upper Rincon Creek (Padre, 2001), and upper Santa Monica Creek (Padre pers. obs., 2021). California newt occurs in foothill areas with intact riparian habitat and pools for breeding, which do not occur at the Project Site. Therefore, California newt is considered absent from the Project Site.

California Red-legged Frog. This species is known to occur in permanent and temporary freshwater bodies, but also to travel extensive distances over upland areas. It has been reported in upper Santa Monica Creek, two miles north of Carpinteria Salt Marsh (Padre, 2003, Padre pers. obs., 2020). This species was not found in Romero Creek following completion of protocol surveys (Padre, 2001). Due to lack of suitable habitat, California red-legged frog is not expected to occur within close proximity to the Project Site.

Foothill Yellow-legged Frog. This species typically occupies perennial streams or rivers of woodlands, chaparral, or forest. It has historically been reported in the Santa Ynez River watershed at the southern end of its range. This species is now apparently extinct from the southern border of Monterey County throughout southern California based on the lack of records since 1970-1971, despite intensive search (Stebbins, 2003). Due to lack of suitable habitat and recent sight records in southern California, foothill yellow-legged frog is not expected to occur at the Project Site.

Arroyo Toad. This species is known to occupy sandy riverbanks, washes and arroyos including within the Santa Ynez River and Santa Clara River watersheds. Riverbed, arroyo or other suitable riparian habitat is absent from the Project Site, and arroyo toad is not expected to occur at the Project Site.

Southwestern Pond Turtle. This species is an aquatic turtle inhabiting streams, marshes, ponds, and irrigation ditches within woodland, grassland, and open forest communities, but requires upland sites for nesting and over-wintering. Stream habitat must contain large, deep pool areas or more shallow pools provided some plant or debris cover is available. This species has been reported in Cold Springs Creek (Tierney and Storrer, 1990),

upper Rincon Creek (Padre, 2001), upper Santa Monica Creek (Padre pers. obs., 2020), and could occur in upper Carpinteria Creek. Due to lack of suitable habitat, southwestern pond turtle is not expected to occur within close proximity to the Project Site.

Two-striped Garter Snake. This species is an aquatic snake found in or near permanent fresh water, often along streams with rocky beds and riparian growth. Two-striped garter snake has been found in many streams along the Santa Barbara County coast, including San Ysidro and Montecito Creeks (Tierney and Storrer, 1990), and recently in upper Santa Monica Creek (Padre pers. obs., 2020). This species may also occur in upper Carpinteria and Rincon Creeks. Due to lack of suitable habitat, two-striped garter snake is not expected to occur within close proximity to the Project Site.

Coast Horned Lizard. This species is known from the region and could occur in sandy patches in openings of scrub habitats, such as what is found at the Carpinteria Bluffs. Therefore, there may be a low potential for coast horned lizard to occur in the southern portions of the Project Site.

Northern California Legless Lizard. This species has multiple historical records in the CNDDB in the Carpinteria area, occupying moist, loose soil beneath sand dune vegetation and the duff layer of oak woodlands. Therefore, there may be a low to moderate potential for legless lizard to occur in the lesser disturbed portions of the Project Site (i.e., the Buffer Zone and low-lying areas of vegetated bluffs).

Ringneck Snake. This species has been observed on the Project Site in the Buffer Zone. The San Bernardino subspecies has been designated by the U.S. Forest Service as a sensitive species. However, no other Federal, State or local agency or organization considers this species as needing protection. Therefore, the San Bernardino ringneck snake may not meet the definition of rare or endangered under Section 15380 of the State CEQA Guidelines. According to the subspecific designations and geographic distributions developed in 1942 (including six subspecies in California), the Project Site is located in an intergradation area between the San Bernardino ringneck snake and the Monterey ringneck snake. More recent research (Fontanella et al., 2021) indicates this species should be separated into only three subspecies in California, with the project area included within the western California subspecies, which does not include the formerly designated geographic distribution of the San Bernardino ringneck snake. Therefore, ringneck snakes found on the Project Site do not have any special-status.

Light-footed Clapper Rail. This species is an obligate saltmarsh resident and occurs within the Carpinteria Salt Marsh. Due to lack of suitable habitat, light-footed clapper rail is not expected to occur within close proximity to the Project Site.

Belding's Savanna Sparrow. This species is an obligate saltmarsh resident and occurs within the Carpinteria Salt Marsh. Due to lack of suitable habitat, Belding's savanna sparrow is not expected to occur within close proximity to the Project Site.

American Peregrine Falcon. This species was removed from the Federal and State endangered species lists due to apparent population increases but remains on the State list as Fully Protected. Peregrine falcons nest on ledges or "potholes" in cliffs, usually near water. In the project area, peregrine falcons may be found foraging along the Santa Barbara coastline, including Carpinteria Salt Marsh, but only on an infrequent basis (SBCFCWCD, 2003). This species may have a low potential to occur within close proximity to the Project Site, and likely be limited to foraging.

Western Snowy Plover. This species inhabits sandy beaches, especially in areas with low foredunes that are not inundated at high tide. Western snowy plovers are an occasional winter visitor to areas in the vicinity of the Carpinteria Salt Marsh and have been observed on the beach below Carpinteria Bluffs. Carpinteria Beach was formerly designated as Critical Habitat by the U.S. Fish and Wildlife Service for wintering snowy plovers but has since been removed in 2012. Snowy plovers may be expected to forage, but not nest on the beach below the bluff portions of the Project Site.

California Brown Pelican. This species does not nest in mainland Santa Barbara County. Most nesting takes place in Baja California, but some occurs on the Channel Islands (primarily Anacapa Island). Areas favored for congregating generally have freshwater for bathing (such as river mouths), quiet places for resting and preening, and often are adjacent to ocean waters with good fish populations. Although aerial observations of brown pelican are common along the Project Site's coastline, due to lack of suitable habitat, this species is not expected to occur directly within the Project Site.

California Least Tern. This species is found breeding in colonies on beaches, sandbars or other flat exposed areas. It has been observed foraging at the Carpinteria Salt Marsh in the vicinity of the estuary mouth (SBCFCWCD, 2003). Ocean waters adjacent to the Project Site may be visited by California least terns. Due to lack of suitable habitat, this species is not expected to occur at the Project Site.

Northern Harrier. Northern harriers inhabit marshes and meadows where they feed on small mammals. This species is not known to breed along the Santa Barbara south coast but is expected at Carpinteria Salt Marsh as a transient and winter visitor (SBCFCWCD, 2003). Thus, northern harriers may forage in the general vicinity of the Project Site.

Merlin. This medium-sized falcon is a winter visitor to Santa Barbara County, especially the Carpinteria Salt Marsh, where it has been observed perching on low vegetation or foraging for prey. Thus, merlins may potentially forage in the general vicinity of the Project Site.

Yellow Warbler. This species nests in riparian woodlands and has been reported as nesting within the upper reaches of Romero Creek, Montecito Creek, Toro Canyon and San Ysidro Creek (Tierney and Storrer, 1990). This species has been observed foraging in the Buffer Zone (Padre, 2012), but due to lack of suitable habitat, this species is not expected to nest at the Project Site.

Yellow-breasted Chat. This species prefers riparian woodlands for use as nesting habitat and has been observed in the past in several of the larger streams along the South Coast. It has been observed nesting in Toro Canyon and is considered rare as a breeder in the project area (Tierney and Storrer, 1990). Due to lack of suitable habitat, this species is not expected to occur within close proximity to the Project Site.

Least Bell's Vireo. This species is known to occur in extensive thickets of willow or other riparian vegetation, including within the Santa Ynez River watershed (CNDDB, 2021). However, due to the absence of riparian forest and lack of breeding records in the region, least Bell's vireo is not likely to occur at or near the Project Site.

White-Tailed Kite. White-tailed kite breeding sites are uncommon in southern Santa Barbara County, but this species regularly forages along the coast during fall and winter, especially in grasslands in the vicinity of nocturnal communal roost sites in willow groves, oaks, avocado and citrus orchards, and eucalyptus (Lehman, 1994). White-tailed kite forages in grasslands along the Carpinteria Bluffs and within the Carpinteria Salt Marsh. Thus, white-tailed kites may forage in the vicinity of the Project Site.

Loggerhead Shrike. This species frequents grassland and open shrubland and has been observed at the Carpinteria Bluffs. Loggerhead shrike may forage at the Project Site.

Cooper's Hawk. This species is a very uncommon, local breeder in foothill riparian habitats in Santa Barbara County (Lehman, 1994). Cooper's hawk may be seen regularly in spring and summer in the Carpinteria area, suggesting that nesting may occur in Santa Monica Canyon to the north of the project area. This species was observed foraging at the Project Site in April 2021 and may be expected to forage and to a lesser degree, potentially nest at the Project Site.

American Bittern. This species is a very uncommon, local transient and winter visitor along the southern Santa Barbara County coastline (Lehman, 1994). This species prefers fresh- and salt-water marshes, and has been observed at the Carpinteria Salt Marsh. Due to lack of suitable habitat, this species is not expected to occur within close proximity to the Project Site.

Long-billed Curlew. This species is an uncommon visitor to southern Santa Barbara County, but occurs regularly at Carpinteria Salt Marsh (Lehman, 1994). This species is found in a variety of habitats including sandy beaches, sloughs, river mouths, pastureland, agricultural fields, and dry grassland. Due to lack of suitable habitat, this species is not expected to occur within close proximity to the Project Site.

Osprey. This species is primarily a fall transient to the southern Santa Barbara County coastline (Lehman, 1994). Ospreys are observed at lakes, ponds, sloughs, river mouths, and over nearshore ocean waters. Thus, osprey may occur within the Carpinteria Salt Marsh and forage within ocean waters adjacent to the Project Site. Due to lack of suitable habitat, this species is not expected to occur at the Project Site.

Bank Swallow. This species nests in large colonies, excavating nest burrows in steep riverbank cliffs, gravel pits, and highway cuts (National Geographic Society, 1987). It has been observed at Hendry's Beach (also known as Arroyo Burro Beach) in Santa Barbara (CNDDB, 2021). Suitable habitat does not occur within the Project Site and this species is not expected to occur at the Project Site.

San Diego Desert Woodrat. This species typically occurs in rocky terrain intermixed with chaparral or prickly pear cactus (*Opuntia* sp.) where it occupies elaborate dens built from sticks, twigs, cacti, dung, or other plant materials and man-made debris. Suitable habitat for San Diego desert woodrat is absent from the Project Site, and this species is not expected to occur at the Project Site.

Big Free-tailed Bat. This species prefers rugged, rocky canyons and cliffs, roosts in crevices and cracks in high canyon walls (and to a lesser degree in buildings), and is known to forage over water sources. Big free-tailed bat has been observed in the Santa Barbara area; however, the CDFW Wildlife Habitat Relationships System indicates that this species mainly occurs in New Mexico, southern Arizona and Texas, and probably does not breed in California (CWHR Program Staff, 2002). Due to the absence of suitable bat roosting habitat and lack of sight records in the region, big free-tailed bat is not expected to occur at the Project Site.

Migratory Birds. A list of migratory birds protected under the Migratory Bird Treaty Act of 1918 is contained in 50 CFR 10.13, and includes five raptor species known from the project area (great horned owl, red-tailed hawk, red-shouldered hawk, Cooper's hawk, and American kestrel), other potential bird species listed above, and a majority of the bird species listed in Attachment B. The focus of the Act was the:

> "Establishment of a Federal prohibition, unless permitted by regulations, to pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale, sell, offer to purchase, purchase, deliver for shipment, ship, cause to be shipped, deliver for transportation, transport, cause to be transported, carry, or cause to be carried by any means whatever, received for shipment, transportation or carriage, or export, at any time, or in any manner, any migratory bird, included in the terms of this Convention for the protection of migratory birds, or any part, nest or egg of any such bird" (16 USC 703).

These species are also protected under Section 3503 and 3503.5 of the California Fish and Game Code which state, respectively: "It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto", and "It is unlawful to take, possess, or destroy any birds of the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by the Code or any regulation adopted pursuant thereto." Migratory birds are common in the area and are known or expected to breed at the Project Site.

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FIGURES

LEGEND:

- Operational Area
- Project Site

MAP EXTENT:

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

PROJECT NAME:
CARPINTERIA PLANT DECOMMISSIONING
SANTA BARBARA COUNTY, CA

PROJECT NUMBER: 2002-5211

DATE: June 2021

OPERATIONAL AREAS MAP

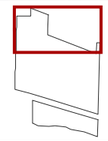
FIGURE 1

LEGEND:

Operational Area

Vegetation Types
- AG - Annual grassland or mustards
- CB - Coyote brush scrub
- CS - California sagebrush scrub
- CYP - Monterey cypress trees
- DEV - Developed (pavement, gravel, structures)
- EUC - Eucalyptus groves or windrows
- OAK - Coast live oak woodland
- ORN - Ornamental trees
- SYC - California sycamore woodland

MAP EXTENT:



0 50 100 FEET

Source: KCSI Aerial Patrol 2020, ESRI Online Imagery Basemap
Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
Notes: This map was created for informational and display purposes only.

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

PROJECT NAME: CHEVRON CARPINTERIA
OIL AND GAS PROCESSING FACILITY PROPERTIES
SANTA BARBARA COUNTY, CA

PROJECT NUMBER: 2002-5211

DATE: June 2021

VEGETATION MAP

FIGURE 2A

Z:\GIS Projects\GIS Maps\Map Project\Carpinteria Oil & Gas Facility\Terrestrial Biological Resources Study\Vegetation Map 2021.mxd 6/3/2021

LEGEND:

Operational Area

Vegetation Types

AG - Annual grassland or mustards
AG/DIST - Disturbed annual grassland or mustards
CS - California sagebrush scrub
DEV - Developed (pavement, gravel, structures)
ELD - Blue elderberry stands
EUC - Eucalyptus groves or windrows
EUC/TAM - Eucalyptus and Tamarisk thickets or windrows
MF - Mulefat thicket
OAK - Coast live oak woodland
ORN - Ornamental trees
SYC - California sycamore woodland
TOY - Toyon Chaparral
WIL - Arroyo willow thickets

MAP EXTENT:

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FEET

Source: KCSI Aerial Patrol 2020, ESRI Online Imagery Basemap
Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
Notes: This map was created for informational and display purposes only.

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

PROJECT NAME: CHEVRON CARPINTERIA OIL AND GAS PROCESSING FACILITY PROPERTIES SANTA BARBARA COUNTY, CA
PROJECT NUMBER: 2002-5211
DATE: June 2021

VEGETATION MAP

FIGURE 2B

Z:\GIS Projects\GIS Maps\Map Project\Carpinteria Oil & Gas Facility\Terrestrial Biological Resources Study\Vegetation Map 2021.mxd 6/3/2021

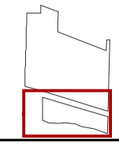
LEGEND:

Operational Area

Vegetation Types

- AG - Annual grassland or mustards
- BARE - Bare ground
- CB - Coyote brush scrub
- CS - California sagebrush scrub
- CYP - Monterey cypress trees
- DEV - Developed (pavement, gravel, structures)
- EUC - Eucalyptus groves or windrows
- GB - Golden bush scrub
- IP - Iceplant mats
- LB - Lemonade berry scrub
- SB - Saltbush (Quailbush) scrub
- SYC - California sycamore woodland
- WIL - Arroyo willow thickets

MAP EXTENT:



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FEET

Source: KCSI Aerial Patrol 2020, ESRI Online Imagery Basemap
Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
Notes: This map was created for informational and display purposes only.

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

PROJECT NAME: CHEVRON CARPINTERIA
OIL AND GAS PROCESSING FACILITY PROPERTIES
SANTA BARBARA COUNTY, CA

PROJECT NUMBER: 2002-5211

DATE: June 2021

VEGETATION MAP

FIGURE 2C

Z:\GIS Projects\GIS Maps\Map Project\Carpinteria Oil & Gas Facility\Terrestrial Biological Resources Study\Vegetation Map 2021.mxd, 6/3/2021

ATTACHMENT A
PROJECT SITE PLANT LIST

ATTACHMENT A
CARPINTERIA OIL AND GAS PROCESSING FACILITIES - PLANT LIST

FAMILY Common Name	*Scientific Name*	Growth Habit	Wetland Indicator Status	Native Status	Invasiveness Rating	FSBA	Railroad Ditch	BZ and/or DA4	FNA and/or FMTA	Shop, Plant and/or CPL	Pipeline Bluff Crossing Area	Pier Lot
CUPRESSACEAE (Cypress Family)												
Monterey cypress	*Hesperocyparis macrocarpa*	T	NL	I		X	X	X		X	X	X
Dawn redwood	*Metasequoia glyptostroboides*	T	NL	I						X		
PINACEAE (Pine Family)												
Aleppo pine	*Pinus halepensis*	T	NL	I			X				X	
Monterey pine	*Pinus radiata*	T	NL	I				X	X	X		
TAXODIACEAE (Bald Cypress Family)												
Redwood	*Sequoia sempervirens*	T	NL	I			X					
ARAUCARIACEAE (Araucaria Family)												
Norfolk island pine	*Araucaria excelsa*	T	NL	I					X			
ADOXACEAE (Muskroot Family)												
Blue elderberry	*Sambucus nigra ssp. caerulea*	T	FACU	N				X	X			X
AIZOACEAE (Fig-Marigold Family)												
Crystalline iceplant	*Mesembryanthemum crystallinum*	H	FACU	I	Moderate						X	
Baby sun rose	*Mesembryanthemum cordifolium*	V	NL	I			X					
Freeway iceplant	*Carpobrotus edulis*	S	NL	I	High					X	X	X
ANACARDIACEAE (Sumac or Cashew Family)												
Laurel sumac	*Malosma laurina*	S	NL	N		X						
Lemonade berry	*Rhus integrifolia*	S	NL	N		X		X	X		X	X
Brazilian pepper tree	*Schinus terebinthifolius*	T	NL	I	Moderate		X	X				
APIACEAE (Carrot Family)												
Poison hemlock	*Conium maculatum*	H	FACW	I	Moderate	X		X				
Fennel	*Foeniculum vulgare*	H	NL	I	Moderate	X						X
APOCYNACEAE (Dogbane Family)												
Oleander	*Nerium oleander*	S	NL	I			X	X				
ARALIACEAE (Ginseng Family)												
English ivy	*Hedera helix*	V	NL	I	High		X	X				
ASPARAGACEAE (Asparagus Family)												
Century plant	*Agave americana*	S	UPL	I						X		
Dracaena	*Dracaena sp.*	S	NL	I						X		
ASPHODELACEAE (Asphodel Family)												
Aloe	*Aloe sp.*	S	NL	I						X		
Onionweed	*Asphodelus fistulosus*	H	NL	I	Moderate	X				X		X
ASTERACEAE (Sunflower Family)												
Western ragweed	*Ambrosia psilostachya*	H	FACU	N		X		X	X	X	X	X
California sagebrush	*Artemisia californica*	H	NL	N		X			X		X	X
Mugwort	*Artemisia douglasiana*	H	FAC	N		X		X			X	
Coyote brush	*Baccharis pilularis*	S	NL	N		X		X	X	X	X	X
Mule fat	*Baccharis salicifolia*	S	FAC	N				X			X	
Italian thistle	*Carduus pycnocephalus*	H	NL	I	Moderate		X	X				
Tocalote	*Centaurea melitensis*	H	NL	I	Moderate	X						X
Bull thistle	*Cirsium vulgare*	H	FACU	I	Moderate							X
Brass buttons	*Cotula coronopifolia*	H	OBL	I	Limited					X		
Artichoke	*Cynara scolymus*	H	NL	I				X				
German Ivy	*Delairea odorata*	V	NI	I	High	X		X				
California bush sunflower	*Encelia californica*	S	NL	N		X				X	X	X
Horseweed	*Erigeron canadensis*	H	FACU	N						X		
Crown daisy	*Glebionis coronaria*	H	NL	I	Moderate					X		
Bristly ox-tongue	*Helminthotheca echioides*	H	FAC	I	Limited		X	X	X	X		
Telegraph weed	*Heterotheca grandiflora*	H	NL	N						X		X
Rough cat's-ear	*Hypochaeris radicata*	H	NL	I	Moderate			X	X			X
Coastal golden-bush	*Isocoma menziesii*	S	NL	N		X				X		X

ATTACHMENT A
CARPINTERIA OIL AND GAS PROCESSING FACILITIES - PLANT LIST

FAMILY Common Name	*Scientific Name*	Growth Habit	Wetland Indicator Status	Native Status	Invasiveness Rating	FSBA	Railroad Ditch	BZ and/or DA4	FNA and/or FMTA	Shop, Plant and/or CPL	Pipeline Bluff Crossing Area	Pier Lot
Prickly lettuce	*Lactuca serriola*	H	FACU	I		X		X		X		
Narrowleaf cottonrose	*Logfia gallica*	H	NL	I						X		
Green everlasting	*Pseudognaphalium californicum*	H	NL	N		X				X		
Cudweed	*Pseudognaphalium canescens ssp. microcephalum*	H	FACU	N		X				X		
Cotton-batting plant	*Pseudognaphalium stramineum*	H	FAC	N						X		
Milk thistle	*Silybum marianum*	H	NL	I	Limited					X		
Prickly sow thistle	*Sonchus asper*	H	FAC	I		X						
Common sow thistle	*Sonchus oleraceus*	H	UPL	I			X	X		X		X
BIGNONIACEAE (Bignonia Family)												
Trumpet creeper	*Campsis radicans*	V	NL	I				X				
Cape honeysuckle	*Tecoma capensis*	S	NL	I				X	X			
BORAGINACEAE (Borage Family)												
Large-flowered popcorn flower	*Cryptantha intermedia*	H	NL	N						X		
Pride of Madeira	*Echium candicans*	S	NL	I	Limited			X		X		
Branching phacelia	*Phacelia ramosissima*	H	FACU	N						X	X	X
BRASSICACEAE (Mustard Family)												
Shepherd's purse	*Capsella bursa-pastoris*	H	FACU	I						X		
Summer mustard	*Hirschfeldia incana*	H	NL	I	Moderate	X	X	X	X	X	X	X
Wild radish	*Raphanus sativus*	H	NL	I	Limited		X	X	X	X		
London rocket	*Sisymbrium irio*	H	NL	I	Limited					X		
CACTACEAE (Cactus Family)												
Mission prickly-pear	*Opuntia ficus-indica*	S	NL	I						X		
CARYOPHYLLACEAE (Pink Family)												
Sand-spurrey	*Spergularia bocconi*	H	FACW	I						X		
Four-leaved all-seed	*Polycarpon tetraphyllum*	H	NL	I			X					
CHENOPODIACEAE (Goosefoot Family)												
Big saltbush, quailbush	*Atriplex lentiformis*	S	FAC	N		X			X		X	X
Five-hook bassia	*Bassia hyssopifolia*	S	FACU	I	Limited		X		X	X		
Pitseed goosefoot	*Chenopodium berlandieri*	H	NL	N						X		
Nettle leaf goosefoot	*Chenopodium murale*	H	FACU	I						X		
Russian thistle	*Salsola tragus*	H	FACU	I	Limited				X	X		
CONVOLVULACEAE (Morning-Glory Family)												
Chaparral morning-glory	*Calystegia macrostegia ssp. intermedia*	V	NL	N		X	X	X				X
Bindweed	*Convolvulus arvensis*	H	NL	I			X			X		
CRASSULACEAE (Stonecrop Family)												
Pygmy weed	*Crassula connata*	H	FAC	N						X		
Jade plant	*Crassula ovata*	H	NL	I						X		
EUPHORBIACEAE (Spurge Family)												
Spotted spurge	*Chamaesyce maculata*	H	FACU	I			X			X		
Caper spurge	*Euphorbia lathyris*	H	NL	I			X					
Petty spurge	*Euphorbia peplus*	H	NL	I			X	X		X		
Carnation spurge	*Euphorbia terracina*	H	NL	N	Limited				X	X	X	
Castor bean	*Ricinus communis*	H	FACU	I	Limited		X	X	X		X	X
FABACEAE (Legume Family)												
Sydney golden wattle	*Acacia longifolia*	T	NL	I	Watch				X	X		
Strigose lotus	*Acmispon strigosus*	H	NL	N						X		
Miniature lupine	*Lupinus bicolor*	H	NL	N						X		
Succulent lupine	*Lupinus succulentus*	H	NL	N					X			
Collared annual lupine	*Lupinus truncatus*	H	NL	N						X		
California bur-clover	*Medicago polymorpha*	H	NL	I	Limited			X		X		
Yellow sweet clover	*Melilotus indicus*	H	FACU	I		X			X	X		X
Spring vetch	*Vicia sativa*	H	FACU	I				X	X		X	

ATTACHMENT A
CARPINTERIA OIL AND GAS PROCESSING FACILITIES - PLANT LIST

FAMILY Common Name	*Scientific Name*	Growth Habit	Wetland Indicator Status	Native Status	Invasiveness Rating	FSBA	Railroad Ditch	BZ and/or DA4	FNA and/or FMTA	Shop, Plant and/or CPL	Pipeline Bluff Crossing Area	Pier Lot
FAGACEAE (Oak Family)												
Coast live oak	*Quercus agrifolia*	T	NL	N		X	X	X	X	X		X
Scrub oak	*Quercus berberidifolia*	T	NL	N								X
GERANIACEAE (Geranium Family)												
Red-stemmed filaree	*Erodium cicutarium*	H	NL	I	Limited	X	X		X	X	X	
White-stemmed filaree	*Erodium moschatum*	H	NL	I						X		
Cut-leaf geranium	*Geranium dissectum*	H	NL	I	Limited			X		X		
Geranium	*Pelargonium sp.*	H	NL	I				X				
GROSSULARIACEAE (Gooseberry Family)												
Fuschia-flowered gooseberry	*Ribes speciosum*	S	NL	N					X			
LAMIACEAE (Mint Family)												
Horehound	*Marrubium vulgare*	H	FACU	I	Limited	X				X		
Rosemary	*Rosmarinus officianalis*	S	NL	I			X					
Black sage	*Salvia mellifera*	S	NL	N					X		X	
Purple sage	*Salvia leucophylla*	S	NL	N		X		X			X	X
LAURACEAE (Laurel Family)												
Avocado	*Persea americana*	T	NL	I						X		
MAGNOLIACEAE (Magnolia Family)												
Southern magnolia	*Magnolia grandiflora*	T	NL	I						X		
MALVACEAE (Mallow Family)												
Bull mallow	*Malva nicaeensis*	H	NL	I			X	X	X	X		
Cheeseweed	*Malva parviflora*	H	NL	I				X	X	X	X	
MYOPORACEAE (Myoporum Family)												
Myoporum	*Myoporum laetum*	T	NL	I	Moderate			X	X	X		
MYRTACEAE (Myrtle Family)												
Blue gum	*Eucalyptus globulus*	T	NL	I	Moderate			X	X	X	X	
Scarlet gum	*Eucalyptus ficifolia*	T	NL	I				X				
NYCTAGINACEAE (Four O'Clock Family)												
Bougainvillea	*Bougainvillea spectabilis*	S	NL	I				X	X	X		
OLEACEAE (Olive Family)												
Oregon ash	*Fraxinus latifolia*	T	FACW	I				X		X		
Olive	*Olea europaea*	T	NL	I	Limited			X				
ONAGRACEAE (Evening Primrose Family)												
Small evening primrose	*Camissoniopsis micrantha*	H	NL	N						X		X
OXALIDACEAE (Oxalis Family)												
Creeping wood sorrel	*Oxalis corniculata*	H	FACU	I		X	X					X
Bermuda buttercup	*Oxalis pes-capre*	H	NL	I	Moderate		X	X	X	X	X	X
PAPAVERACEAE (Poppy Family)												
California poppy	*Eschscholzia californica*	H	NL	N					X	X		
PITTOSPORACEAE (Pittosporum Family)												
Victorian box	*Pittosporum undulatum*	T	NL	I			X	X		X		
PLANTAGINACEAE (Plantain Family)												
English plantain	*Plantago lanceolata*	H	FAC	I	Limited	X		X	X	X	X	
Common plantain	*Plantago major*	H	FAC	I				X				
PLATANACEAE (Sycamore Family)												
Western sycamore	*Plantanus racemosa*	T	FAC	N		X		X		X	X	X
POLYGONACEAE (Buckwheat Family)												
California buckwheat	*Eriogonum fasciculatum*	S	NL	N								X
Seacliff buckwheat	*Eriogonum parvifolium*	S	NL	N							X	X
Common knotweed	*Polygonum aviculare ssp. depressum*	H	FAC	I				X				
Curly dock	*Rumex crispus*	H	FAC	I	Limited		X	X	X	X	X	
MYRSINACEAE (Myrsine Family)												
Scarlet pimpernel	*Anagallis arvensis*	H	FAC	I		X	X			X		X

ATTACHMENT A
CARPINTERIA OIL AND GAS PROCESSING FACILITIES - PLANT LIST

FAMILY Common Name	*Scientific Name*	Growth Habit	Wetland Indicator Status	Native Status	Invasiveness Rating	FSBA	Railroad Ditch	BZ and/or DA4	FNA and/or FMTA	Shop, Plant and/or CPL	Pipeline Bluff Crossing Area	Pier Lot
RANUNCULACEAE (Buttercup Family)												
Virgin's bower	*Clematis ligusticifolia*	V	FAC	N			X			X		
ROSACEAE (Rose Family)												
California rose	*Rosa californica*	S	FAC	N							X	
California blackberry	*Rubus ursinus*	PV	FAC	N							X	
Cotoneaster	*Cotoneaster pannosa*	S	NL	I	Moderate			X		X		
Toyon	*Heteromeles arbutifolia*	S	NL	N				X	X		X	
Peach	*Prunus persica*	S	NL	I			X	X		X		
Firethorn	*Pyracantha koidzumii*	S	NL	I				X				
Blackberry	*Rubus pensilvanicus*	V	NL	I			X	X				
RUBIACEAE (Madder Family)												
Common bedstraw	*Galium aparine*	H	FACU	N						X		
SALICACEAE (Willow Family)												
Arroyo willow	*Salix lasiolepis*	T	FACW	N		X	X	X		X		X
SAURURACEAE (Lizards-tail Family)												
Yerba mansa	*Anemopsis californica*	H	OBL	N							X	
SOLANACEAE (Nightshade Family)												
Tree tobacco	*Nicotiana glauca*	S	FAC	I	Moderate					X		X
Nightshade	*Solanum douglasii*	H	FAC	N			X	X				
Black nightshade	*Solanum nigrum*	H	FACU	I		X						
Purple nightshade	*Solanum xanti*	S	NL	N								X
TAMARICACEAE (Tamarisk Family)												
Athel tamarisk	*Tamarix aphylla*	T	FAC	I	Limited					X		
TROPAEOLACEAE (Nasturtium Family)												
Garden nasturtium	*Tropaeolum majus*	H	NL	I			X	X	X			
ULMACEAE (Elm family)												
Chinese elm	*Ulmus parvifolia*	T	UPL	I					X			
URTICACEAE (Nettle Family)												
Dwarf nettle	*Urtica urens*	H	NL	I						X		
VERBENACEAE (Vervain Family)												
Verbena	*Verbena lasiostachys var. scabrida*	H	FAC	N		X						X
ARECACEAE (Palm Family)												
Canary Island palm	*Phoenix canariensis*	T	NL	I	Limited			X				
Mexican fan palm	*Washingtonia robusta*	T	NL	I	Moderate				X			
CYPERACEAE (Sedge Family)												
Tall cyperus	*Cyperus eragrostis*	H	FACW	N			X	X		X		
California bulrush	*Scheonoplectus californicus*	H	OBL	N							X	
JUNCACEAE (Rush Family)												
Spiny rush	*Juncus acutus ssp. leopoldii*	H	FACW	N							X	
POACEAE (Grass Family)												
Slender wild oat	*Avena barbata*	G	NL	I	Moderate	X	X	X	X	X		
Wild oat	*Avena fatua*	G	NL	I	Moderate		X	X	X			
Brachypodium	*Brachypodium distachyon*	G	NL	I	Moderate	X						
Rescue grass	*Bromus catharticus*	G	NL	I			X	X				
Ripgut grass	*Bromus diandrus*	G	NL	I	Moderate	X	X	X	X		X	X
Soft cheat	*Bromus hordeaceus*	G	FACU	I	Limited			X		X	X	X
Red brome	*Bromus madritensis* ssp. *rubens*	G	UPL	I	High	X				X		X
Pampas grass	*Cortaderia selloana*	G	FACU	I	High	X	X	X				X
Bermuda grass	*Cynodon dactylon*	G	FACU	I	Moderate				X			X
Giant wildrye	*Elymus condensatus*	G	FACU	N								X
Erect veldt grass	*Ehrharta erecta*	G	NL	I	Moderate		X					
Italian ryegrass	*Festuca perennis*	G	FAC	I	Moderate			X	X			
Farmer's foxtail	*Hordeum murinum ssp. leporinum*	G	NI	I	Moderate	X	X	X	X	X	X	

ATTACHMENT A
CARPINTERIA OIL AND GAS PROCESSING FACILITIES - PLANT LIST

FAMILY

Common Name	*Scientific Name*	Growth Habit	Wetland Indicator Status	Native Status	Invasiveness Rating	FSBA	Railroad Ditch	BZ and/or DA4	FNA and/or FMTA	Shop, Plant and/or CPL	Pipeline Bluff Crossing Area	Pier Lot
Goldentop grass	*Lamarckia aurea*	G	FACU	I						X		
Dallis grass	*Paspalum dilatatum*	G	FAC	I				X				
Kikuyu grass	*Pennisetum clandestinum*	G	FACU	I	Limited		X	X				
Fountain grass	*Pennisetum setaceum*	G	NL	I	Moderate							X
Pennisetum	*Pennisetum villosum*	G	NL	I	Watch	X				X		X
Annual bluegrass	*Poa annua*	G	FAC	I			X					
Smilo grass	*Stipa mileacea*	G	NL	I	Limited			X	X	X		
Purple needlegrass	*Stipa pulchra*	G	NL	N		X						
Cultivated wheat	*Triticum aestivum*	G	NL	I					X			
Rattail fescue	*Festuca myuros*	G	FACU	I	Moderate	X					X	X

Native Status Notes	Invasiness Notes
N: Native (to the region)	Invasiveness Rating from California Invasive Plant Inventory (2020)
I: Introduced	

Wetland Notes

OBL: Obligate wetland species, occurs almost always in wetlands (>99% probability)
FACW: Facultative wetland species, usually found in wetlands (67-99% probability)
FAC: Facultative species, equally likely to occur in wetland and non-wetlands (34-66% probability)
FACU: Facultative upland species, not usually found in wetlands (1-33% probability)
UPL: Upland species, almost never found in wetlands (<1% probability)
NI: No indicator has been assigned due to a lack of information to determine indicator status
NL: Not listed, assumed upland species

ATTACHMENT B
PROJECT SITE WILDLIFE LIST

ATTACHMENT B
CARPINTERIA OIL AND GAS PROCESSING FACILITIES - WILDLIFE LIST

COMMON NAME	*SCIENTIFIC NAME*	STATUS
AMPHIBIANS AND REPTILES		
Baja California Tree Frog	*Pseudacris hypochondriaca hypochondriaca*	Native
Western Toad	*Anaxyrus boreas halophilus*	Native
San Diego Gopher Snake	*Pituophis catenifer annectens*	Native
Ringneck Snake	*Diadophis punctatus (western California clade)*	Native
Southern Alligator Lizard	*Elgaria multicarinata*	Native
Common Side-blotched Lizard	*Uta stansburiana*	Native
Western Fence Lizard	*Sceloporus occidentalis*	Native
BIRDS		
Quails		
California Quail	*Callipepla californica*	MBTA
Pelicans & Cormorants		
Double-crested Cormorant (overhead)	*Phalacrocorax auritus*	WL, MBTA
California Brown Pelican (overhead)	*Pelecanus occidentalis californicus*	FP, D, MBTA
Herons & Egrets		
Great Blue Heron	*Ardea herodias*	MBTA
Vultures		
Turkey Vulture (overhead)	*Cathartes aura*	MBTA
Hawks & Eagles		
Cooper's Hawk	*Accipiter cooperii*	WL, MBTA
Red-tailed Hawk	*Buteo jamaicensis*	MBTA
Red-shouldered Hawk	*Buteo lineatus*	MBTA
Falcons		
American Kestrel	*Falco sparverius*	MBTA
Shorebirds & Gulls		
Unidentified Gull sp. (overhead)	*Larus* sp.	MBTA
Pigeons & Doves		
Band-tailed Pigeon	*Patagioenas fasciata*	MBTA
Rock Pigeon	*Columba livea*	Introduced
Mourning Dove	*Zenaida macroura*	MBTA

ATTACHMENT B
CARPINTERIA OIL AND GAS PROCESSING FACILITIES - WILDLIFE LIST

COMMON NAME	***SCIENTIFIC NAME***	**STATUS**
Eurasian Collared Dove	*Streptopelia decaocto*	Introduced
Owls		
Great Horned Owl	*Bubo virginianus*	MBTA
Swifts & Hummingbirds		
Anna's Hummingbird	*Calypte anna*	MBTA
Allen's Hummingbird	*Selasphorus sasin*	MBTA
Woodpeckers		
Acorn Woodpecker	*Melanerpes formicivorus*	MBTA
Downy Woodpecker	*Picoides pubescens*	MBTA
Northern Flicker	*Colaptes auratus*	MBTA
Nuttall's Woodpecker	*Picoides nuttallii*	MBTA
Flycatchers		
Black Phoebe	*Sayornis nigricans*	MBTA
Say's Phoebe	*Sayornis saya*	MBTA
Cassin's Kingbird	*Tyrannus vociferans*	MBTA
Shrikes & Vireos		
Hutton's Vireo	*Vireo huttoni*	MBTA
Jays, Crows & Ravens		
California Scrub Jay	*Aphelocoma californica*	MBTA
American Crow	*Corvus brachyrhynchos*	MBTA
Common Raven	*Corvus corax*	MBTA
Swallows		
Northern Rough-winged Swallow	*Stelgidopteryx serripennis*	MBTA
Cliff Swallow	*Hirundo pyrrhonota*	MBTA
Titmouse & Nuthatches		
Oak Titmouse	*Parus inornatus*	MBTA
Bushtit	*Psaltriparus minimus*	MBTA
White-breasted Nuthatch	*Sitta carolensis*	MBTA
Wrens, Kinglets & Gnatcatchers		
House Wren	*Troglodytes aedon*	MBTA
Bewick's Wren	*Thryomanes bewickii*	MBTA
Ruby-crowned Kinglet	*Regulus calendula*	MBTA
Wrentit	*Chamaea fasciata*	MBTA

ATTACHMENT B
CARPINTERIA OIL AND GAS PROCESSING FACILITIES - WILDLIFE LIST

COMMON NAME	***SCIENTIFIC NAME***	**STATUS**
Blue-gray Gnatcatcher	*Polioptila caerulea*	MBTA
Thrushes		
Western Bluebird	*Sialia mexicana*	MBTA
Hermit Thrush	*Catharus guttatus*	MBTA
American Robin	*Turdus migratorius*	MBTA
Thrashers		
Northern Mockingbird	*Mimus polyglottos*	MBTA
Starlings		
European Starling	*Sturnus vulgaris*	Introduced
Warblers		
Yellow Warbler	*Setophaga petechia*	SSC (where nesting), MBTA
Yellow-rumped Warbler	*Setophaga coronata*	MBTA
Common Yellowthroat	*Geothlypis trichas*	MBTA
Sparrows		
Spotted Towhee	*Pipilo maculatus*	MBTA
California Towhee	*Melozone crissalis*	MBTA
House Sparrow	*Passer domesticus*	Introduced
Song Sparrow	*Melospiza melodia*	MBTA
White-crowned Sparrow	*Zonotrichia leucophrys*	MBTA
Tanagers, Grosbeaks & Buntings		
Western Tanager	*Piranga ludoviciana*	MBTA
Blackbirds, Meadowlark & Orioles		
Brewer's Blackbird	*Euphagus cyanocephalus*	MBTA
Hooded Oriole	*Icterus cucullatus*	MBTA
Finches		
House Finch	*Haemorhous mexicana*	MBTA
Lesser Goldfinch	*Spinus psaltria*	MBTA
Purple Finch	*Haemorhous purpureus*	MBTA
MAMMALS		
Audubon's Cottontail	*Sylvilagus audubonii*	Native
Big-eared Woodrat	*Neotoma macrotis*	Native
Botta's Pocket Gopher	*Thomomys bottae*	Native

ATTACHMENT B
CARPINTERIA OIL AND GAS PROCESSING FACILITIES - WILDLIFE LIST

COMMON NAME	***SCIENTIFIC NAME***	**STATUS**
California Ground Squirrel	*Otospermophilus beecheyi*	Native
Coyote	*Canis latrans*	Native
Domestic Dog	*Canis lupus familiaris*	Introduced
Domestic Cat	*Felis catus*	Introduced
Raccoon	*Procyon lotor*	Native
Red Fox	*Vulpes vulpes*	Introduced
Striped Skunk	*Mephitis mephitis*	Native
Virginia Opossum	*Didelphis virginiana*	Introduced
INVERTEBRATES		
Monarch Butterfly	*Danaus plexippus*	SA, PD

Notes:
MBTA: Migratory Bird Treaty Act and Fish and Game Code 3503; 3503.5 Protection
WL: CDFW Watch List Species
FP: CDFW Fully Protected
SSC: California Species of Special Concern (for birds: where nesting)
SA: CDFW Special Animal
PD: Petition for Federal Endangered Species Act Listing Deferred (USFWS)
D: Delisted from the Federal Endangered Species Act (USFWS)