

3.3 Biological Resources

3.3.1 Introduction

This section evaluates the potential for the proposed project to result in adverse biological resources impacts related to special-status species, sensitive natural communities, jurisdictional resources, and other protected biological resources. The analysis is based on a review of available biological reports of the project area and vicinity, including site-specific investigations conducted for each of the four individual sites that comprise the proposed project, the relevant regulatory ordinances, and a discussion of the methodology and thresholds used to determine whether the proposed project would result in significant impacts. This section identifies the potential for both project-level and cumulative environmental impacts, as well as feasible mitigation measures that could reduce or avoid the identified impacts.

Information sources for the analysis presented in this section include biological technical reports from Glenn Lukos Associates, Inc. (GLA). These technical reports include the *Biological Technical Report for Los Cerritos Wetlands Oil Consolidation and Restoration Project* (GLA 2017a [Appendix C1]), *Jurisdictional Delineation for the Los Cerritos Wetlands Oil Consolidation and Restoration Project* (GLA 2017b [Appendix C1]), *Restoration Plan for the Upper Los Cerritos Wetlands Mitigation Bank* (GLA 2017c [Appendix C2]), *Technical Memorandum—Impacts to Areas that Potentially Meet the California Coastal Act (CCA) Definition for Environmentally Sensitive Habitat Areas (ESHA) Associated with the Los Cerritos Wetlands Oil Consolidation and Restoration Project, Long Beach, California* (GLA 2017d [Appendix C3]), and *Technical Memorandum—Belding’s Savannah Sparrow Surveys for 76.52-Acre Proposed Mitigation Bank at Synergy Oil Field, Long Beach, California* (GLA 2017e [Appendix C1]).

3.3.2 Environmental Setting

The proposed project is located in the City of Long Beach, Los Angeles County. The proposed project would be implemented on four individual sites: the Synergy Oil Field site, City Property site, Pumpkin Patch site, and Los Cerritos Wetlands Authority (LCWA) site. The proposed project includes the relocation of specific oil facilities currently located on the Synergy Oil Field and City Property sites to two other locations, the Pumpkin Patch and LCWA sites.

3.3.2.1 Literature Review and Field Surveys

Biologists from GLA conducted detailed biological surveys on the project site between 2010 and 2017, including (1) focused surveys for special-status plants and animals; (2) vegetation mapping; (3) delineation of wetlands and other aquatic resources; and (4) general and focused biological surveys to obtain floral and faunal inventories for each of the individual sites, including wintering and breeding season surveys for the burrowing owl (*Athene cunicularia*). The LCWA and City of Long Beach have also facilitated surveys on the City Property site. These survey efforts have assisted in understanding the sensitive biological resources that occur, or have a potential to occur, on the project site.

Each site was evaluated for the presence of waters potentially subject to the jurisdiction of the U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), California Department of Fish and Wildlife (CDFW), and wetlands as defined under the California Coastal Commission (CCC). A

summary of the surveys conducted on the project site is described below and further detailed in the Biological Technical Report (Appendix C1).

Botanical Surveys

Prior to conducting fieldwork, a review of the latest California Native Plant Society (CNPS) inventory and a review of the most recent edition of the California Natural Diversity Database (CNDDDB) was conducted by GLA for the U.S. Geological Survey (USGS) 7.5' Los Alamitos, Long Beach, Seal Beach and San Pedro quadrangles to evaluate which special-status plant species might have the potential to occur on site. A complete list of plant species observed within the project site is provided in the floral compendium included in the Biological Technical Report (Appendix C1).

General Surveys

Numerous focused and general botanical surveys as well as jurisdictional delineation efforts on the four individual sites have been conducted by GLA between 2010 and 2017. During these visits, general botanical surveys were conducted, which documented all observed native and non-native plants.

Focused Botanical Surveys

Focused botanical surveys were conducted at the Pumpkin Patch site in 2011, 2013, and 2016. Focused botanical surveys for the Synergy Oil Field and LCWA sites were conducted in 2015 and 2016, with a significant focus on southern tarplant in 2015 on the Synergy Oil Field site because of the substantial numbers observed germinating early in the season. These surveys were conducted in accordance with Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (CDFG 2009). Surveys and jurisdictional delineations were performed on the City Property site by AECOM, Tidal Influence, and Vandermost Consulting Services, Inc. (VCS) as set forth in the 2016 *Biological Resources Assessment and Wetland Delineation: Southeast Area Development and Improvement Plan* (Placeworks and VCS Environmental 2016).

Vegetation Mapping

Vegetation was mapped at the alliance²⁷ or stand²⁸ level based on the *A Manual of California Vegetation, Second Edition* (MCV II) (Sawyer et al. 2009) to the extent possible; however, in some cases, further site-specific refinement has been added to more accurately characterize the vegetation on the individual sites. Where applicable, guidelines set forth in Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (CDFG 2009) were incorporated in the vegetation mapping efforts. The City Property site has been subject to recent surveys in support of the Southeast Area Development and Improvement Plan (SEADIP), which included vegetation mapping. Because the SEADIP report was completed in 2016, this EIR incorporates the results directly, rather than attempting to modify the SEADIP report to be consistent with the MCV II.

Wildlife Resources

A review of the CNDDDB was conducted for the USGS 7.5' Los Alamitos, Long Beach, Seal Beach, and San Pedro quadrangles to identify special-status species that have been recorded in the region. Observations of physical

²⁷ A classification unit of vegetation, containing one or more associations and defined by one or more diagnostic species, often of high cover, in the uppermost layer or the layer with the highest canopy cover.

²⁸ An actual area of vegetation that is homogenous in species composition and structure and in a uniform habitat.

evidence and direct sightings of wildlife were recorded in field notes during each visit. A complete list of wildlife species observed or are expected to occur within the project site is provided in the Faunal Compendium included as Appendix B. The wildlife observed or otherwise detected during the various surveys were noted.

Focused surveys for listed fairy shrimp were conducted on the Pumpkin Patch site during 2011 to 2013. The surveys were repeated during the 2016/2017 wet season. No listed fairy shrimp species were detected during these focused surveys. In addition, focused surveys for burrowing owl were conducted on the Synergy Oil Field, Pumpkin Patch, and LCWA sites during the 2015 breeding season and on all four individual sites during the 2016/2017 wintering season with negative findings. Finally, focused surveys for Belding's savannah sparrow were conducted in spring of 2017 to determine the approximate number and extent of breeding territories within the 76.5-acre Phase 1 restoration area.

Jurisdictional Delineation

A jurisdictional delineation was conducted for the project (Appendix C1). The limits of USACE, CDFW and CCA jurisdiction were recorded, and other data collected during the delineation were recorded onto wetland data sheets.

3.3.2.2 Vegetation Communities

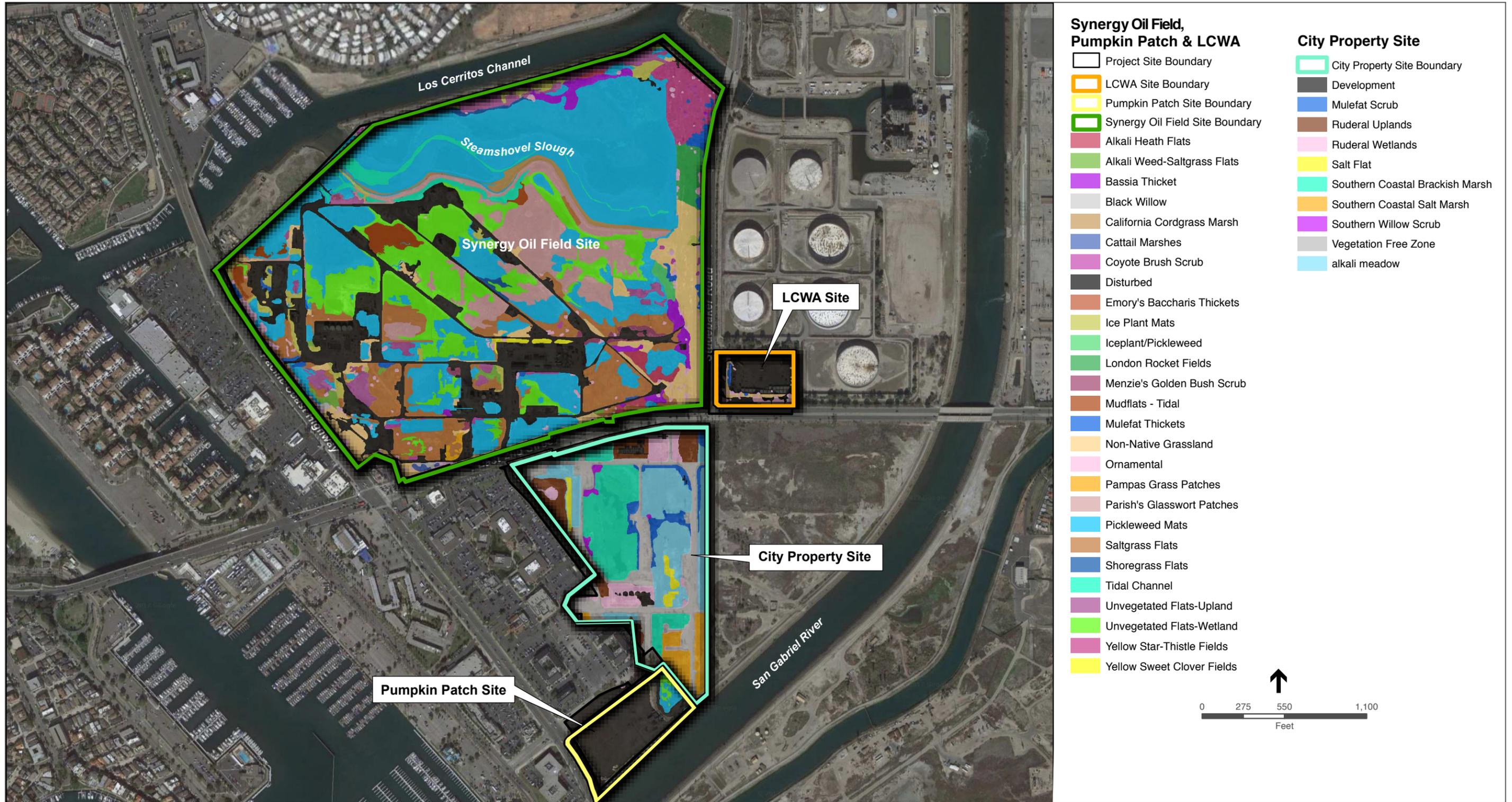
Descriptions of the vegetation associations on the project site have been separated into "upland habitats" and "wetland habitats." In some cases, certain vegetation associations include both wetland and non-wetland stands (e.g., mulefat scrub), where the upland/wetland status was based on a predominance of wetland indicator species as well as soils and hydrological conditions. Table 3.3-1 through Table 3.3-6 summarize the vegetation alliances and land cover types for each of the four individual sites followed by detailed descriptions of each individual site. Vegetation communities are depicted in **Figure 3.3-1, Vegetation Communities**.

Synergy Oil Field Site

The southern portion of the site is an active oil field with a network of roads, pipelines and other oil field-related amenities. The northern portion of the site contains Steamshovel Slough, an area of tidally influenced southern coastal salt marsh, tidal channels, and mud flats. Steamshovel Slough contains no oil operations and is separated from the oil operation areas by an earthen berm. A tide gate near the mouth of the Steamshovel Slough and series of pipes allow tidal water into western portions of the site.

Vegetation alliances are listed below in **Table 3.3-1, Summary of Vegetation Alliances and Land-Cover Types: Synergy Oil Field**. **Table 3.3-2, Summary of Vegetation and Land-Cover Types: Synergy Oil Field (Off Site in City's Right-of-Way)**, describes a small amount of off-site vegetation alliances within the City's right-of-way that would be developed for sidewalks. The alliances are broken down by upland and wetland habitats, and by project location (northern vs. southern areas). Much of the central portion of the site contains oil facilities that are not subject to tidal influence, and includes areas that support salt marsh alliances and/or areas with non-native ruderal species. The southern portion of the site lacks tidal influence and contains the highest concentration of oil facilities including pipeline, tank farms, and numerous pads and roads. This area is the most diverse, supporting vegetation alliances often consistent with the presence of coastal wetlands, along with areas of non-native herbaceous plants, goldenbush scrub, and non-native herbs.

[THIS PAGE INTENTIONALLY LEFT BLANK]



[THIS PAGE INTENTIONALLY LEFT BLANK]

**Table 3.3-1 Summary of Vegetation Alliances and Land-Cover Types:
Synergy Oil Field**

Vegetation	Acres
Upland Alliances: Northern Area	
Coyote Brush Scrub	0.17
Disturbed/Developed	0.98
Bassia Thicket	1.26
Ice Plant Mats	1.14
Mulefat Thickets	0.94
London Rocket Fields	1.34
Menzies' Goldenbush Scrub	0.07
Annual Non-Native Grassland	3.71
Ornamental	0.67
Unvegetated Flats-Upland	2.94
Yellow Star-Thistle Fields	2.97
Iceplant/Pickleweed	0.40
<i>Northern Area Upland Alliances Subtotal</i>	<i>16.59</i>
Upland Alliances: Southern Area	
Coyote Brush Scrub	0.24
Disturbed/Developed	21.42
Emory's Baccharis Thickets	0.04
Ice Plant Mats	1.26
Menzies' Goldenbush Scrub	0.55
Mulefat Thickets	0.39
Annual Non-Native Grassland	4.93
Ornamental	1.63
Pampas Grass Patches	0.20
Yellow Sweet Clover Fields	0.34
Unvegetated Flats-Upland	1.39
Bassia Thicket	0.66
<i>Southern Area Upland Alliances Subtotal</i>	<i>33.06</i>
<i>Upland Alliances Total</i>	<i>49.65</i>
Wetland Alliances: Northern Area	
Alkali Heath Flats	0.13
California Cordgrass Marsh	1.38
Mudflats—Tidal	0.37
Parish's Glasswort Patches	9.20
Pickleweed Mats	37.87
Saltgrass Flats	1.61
Shoregrass Flats	0.30
Tidal Channel	3.18
Unvegetated Flats	6.04
<i>Northern Area Wetland Alliances Subtotal</i>	<i>60.08</i>

Table 3.3-1 Summary of Vegetation Alliances and Land-Cover Types: Synergy Oil Field

Vegetation	Acres
Wetland Alliances Southern Area	
Alkali Heath Flats	0.74
Alkali Weed-Saltgrass Flats	0.54
Black Willow	0.14
Cattail Marshes	0.11
Mudflats—Tidal	1.38
Parish’s Glasswort Patches	2.77
Pickleweed Mats	14.26
Saltgrass Flats	10.48
Shoregrass Flats	0.22
Unvegetated Flats (Non-Tidal)	9.76
<i>Southern Area Wetland Alliances Subtotal</i>	<i>40.40</i>
Wetland Alliances Total	100.48
Total	150.13

SOURCE: Glenn Lukos Associates, Inc., 2017a.

Table 3.3-2 Summary of Vegetation and Land-Cover Types: Synergy Oil Field (Off Site in City’s Right-of-Way)²⁹

Vegetation	Acres
Upland Alliances	
Disturbed/Developed	0.65
Annual Non-Native Grassland	0.04
Fountain Grass	0.02
Mulefat Thickets	0.02
Ornamental	0.09
Total	0.82

SOURCE: Glenn Lukos Associates, from LCWA within the Studebaker OW to , Inc., 2017a.

Upland Alliances and Land-Cover Types

***Baccharis pilularis* Shrubland Alliance (Coyote brush scrub) (S5³⁰)**—Consists of a few small scattered patches in upland areas. The patches are dominated by coyote brush (*Baccharis pilularis*) and the understory typically consists of non-native grasses and forbs.

²⁹Off-site improvements include sidewalks, bikeways, landscaping and the minor improvements required to connect to the Plains All American Pipeline, the Crimson Pipeline and the new gas transported supply pipeline to the existing line at Studebaker and 7th Street.

³⁰ The State Rank is a reflection of the condition and imperilment of an element throughout its range within the state. The State ranks represent a letter+number score that reflects a combination of Rarity, Threat and Trend factors, weighted more heavily on the rarity factors (CDFW 2017).

S1: Critically Imperiled – Critically imperiled in the state because of extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the state.

S2: Imperiled – Imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or state.

***Baccharis emoryi* Provisional Shrubland Alliance (Emory’s baccharis thickets) (S2?)**—Occurs in disturbed areas with an open canopy of Emory’s baccharis (*Baccharis salicina*)³¹ with a mix of saltgrass (*Distichlis spicata*) and small-flowered ice plant (*Mesembryanthemum nodiflorum*) in the understory.

***Baccharis salicifolia* Shrubland Alliance (Mulefat Thickets) (S4)**—Includes all mulefat scrub and disturbed mulefat within the site. This alliance consists of generally small thickets of mulefat (*Baccharis salicifolia*) with understory that varies from location to location but may include one or more of the following species: saltgrass (*Distichlis spicata*), seaside heliotrope (*Heliotropium curassivicum*), small-flowered ice plant, five-horn smotherweed and upland non-native grasses.

***Bassia hyssopifolia* Semi-Natural Herbaceous Stands (Five-horn smotherweed thickets)**—Consists of locally dense thickets of the non-native five-horn smotherweed (*Bassia hyssopifolia*), which occur most commonly within the eastern portion of the site. This species is also a common weed as understory in other associations.

***Bromus diandrus, rubens* Semi-Natural Herbaceous Stands (Annual brome grasslands) (Annual Non-Native Grasslands)**—Includes grasslands dominated by brome grasses and wild oats (*Avena* spp.); however, they do not include annual grasslands dominated by non-native barleys such as hare barley (*Hordeum murinum* ssp. *leporinum*) and Mediterranean barley (*Hordeum marinum* ssp. *Gussoneanum*) which are common on the eastern upland portion of the site, forming dense stands mixed with London rocket and tocolote (*Centarea melitensis*). In other scattered locations, non-native grasses that are predominant include red brome, rip gut (*Bromus diandrus*), slender wild oats (*Avena barbata*), smilo (*Stipa miliacea*), as well as locally dense patches of non-native forbs including small-flowered ice plant, five-horn smotherweed, Australia saltbush (*Atriplex semibaccata*), tocalote, London rocket (*Sisymbrium irio*), and summer mustard (*Hirschfeldia incana*).

***Carpobrotus edulis* or Other Ice Plants Semi-Natural Herbaceous Stands (Ice plant mats)**—Common as small patches throughout the site. This alliance is dominated by non-native small-flowered ice plant (*Mesembryanthemum nodiflorum*) and occasionally by the non-native crystalline ice plant (*Mesembryanthemum crystallinum*).

***Centaurea (solstitialis, melitensis)* Semi-Natural Herbaceous Stands (Yellow Star Thistle Fields)**—Limited to a single location along the eastern portion of northern area. This alliance is dominated by yellow-star thistle (*Centaurea solstitialis*), a non-native invasive species as listed by the California Invasive Plant Council (CalIPC).

***Cortedaria (jubata, selloana)* Semi-Natural Herbaceous Stands (Pampas grass patches)**—Dominated by pampas grass (*Cortedaria selloana*).

Disturbed/Developed—Most often associated with areas disturbed by historic oil operations, including existing roads, existing and former oil well sites and other types of infrastructure. Many of these areas are bare or sparsely vegetated whereas others are covered by gravels or asphalt-like material (ALM). Vegetation is comprised mostly of non-native with species such as small flowered ice plant, tocalote (*Centaurea melitensis*) and non-native grasses (*Bromus* spp.).

S3: Vulnerable — Vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation.

S4: Apparently Secure — Uncommon but not rare; some cause for long-term concern due to declines or other factors.

S5: Secure – Common, widespread, and abundant in the state.

? Qualifier: Inexact or Uncertain – A question mark represents a rank qualifier, denoting an inexact or uncertain numeric rank.

³¹ The 2012 Jepson Manual (Baldwin et al. 2012, 256) now lists this taxon as *Baccharis salicina*.

Melilotus (indicus, albus) Semi-Natural Herbaceous Stands (Sweet Clover Fields)—Limited to a single location within the southern area. This alliance is dominated by yellow sweet clover (*Melilotus indicus*) and also includes non-native grasses.

Menziesii's Goldenbush Scrub (S4?)—Menzies' goldenbush is scattered across much of the site and only lacking in the Steamshovel Slough. This alliance is dominated by Menzies' goldenbush (*Isocoma menziesii*), which is a native shrub that is highly opportunistic and adapted to disturbed areas. In some areas, this species has invaded well pads and areas previously used for equipment storage and also along road edges. As it is typically in disturbed areas, there is often a non-native understory that includes small-flowered ice plant and non-native grasses.

Schinus (molle, terebinthifolius) Myoporum laetum Semi-Natural Woodland Stands (Pepper tree or Myoporum groves) (Ornamental)—Because of the history of disturbance associated with the oil field operations, the Synergy Oil Field site supports substantial areas of non-native invasive or non-native, and in some cases, invasive trees. Areas mapped as “Ornamental” vary according to location and can include the following species:

- *Myoporum (Myoporum laetum)*;
- Canary Island Palm (*Phoenix canariensis*);
- Mexican Fan Palm (*Washingtonia robusta*);
- Shamel Ash (*Fraxinus uhdei*);
- Bluegum Eucalyptus (*Eucalyptus globulus*);
- Sydney golden wattle (*Acacia longifolia*); and
- Brazilian pepper (*Schinus terebinthifolius*).

Sisymbrium irio Semi-Natural Herbaceous Stands (London rocket fields)—Occurs at a single location at the southeast corner of the northern area, consisting of a near monoculture of the non-native London rocket (*Sisymbrium irio*). This alliance intergrades with yellow-star thistle fields to the north and non-native grasses to the south.

Unvegetated Flats (Upland)—Consist of areas with less than 5 percent vegetative cover. Unvegetated Flats (Upland) are distinguished from Unvegetated Flats (Wetland), which at a minimum exhibit either wetland hydrology or hydric soils and, therefore, meet the CCA definition of wetlands. The lack of wetland hydrology was determined through direct observations in the field during data collection associated with the wetland delineation or through review of historic aerial photographs for ponding.

Wetland Alliances and Land-Cover Types

Arthrocnemum subterminale Herbaceous Alliance (Parish's Glasswort Patches) (S2)—Parish's glasswort is a plant that is most common in high marsh areas, and the patches dominated by Parish's glasswort (*Arthrocnemum subterminale*) are common on the berm that demarcates the southern edge of Steamshovel Slough as well as non-tidal areas south of Steamshovel Slough. While this species often forms monocultures, other species that are sometimes associated with it include common pickleweed (*Salicornia pacifica*), alkali heath (*Frankenia salina*), saltgrass (*Distichlis spicata*), shoregrass (*Distichlis littoralis*), and sea lavender (*Limonium californicum*).

Cressa truxillensis–Distichlis spicata Herbaceous Alliance (Alkali weed—saltgrass flats) (S4)—Alkali weed (*Cressa truxillensis*) occurs as a component in a variety of alliances on the site. There is a single occurrence of this

alliance near the southwest corner of the Synergy Oil Field site in the southern area. Dominant plants included saltgrass and alkali weed within a depressional area which also exhibited dead cattails from a wetter period.

***Distichlis littoralis* Herbaceous Alliance (Shoregrass flats)**—Like Parish’s glasswort, shore grass is a species most common in high marsh areas and is common in areas above tidal influence such as on the berm that demarcates the limits of Steamshovel Slough. This species is also a common component of the pickleweed mat alliance described below, and most of the shoregrass on the site is included in the pickleweed mat and/or Parish’s glasswort alliances.

***Distichlis spicata* Herbaceous Alliance (Saltgrass Flats) (S4)**—While saltgrass is common in a variety of alliances in both the northern and southern areas, this alliance is most common in non-tidal areas south of Steamshovel Slough. Dominant plant species include saltgrass (*Distichlis spicata*), common pickleweed, and shore grass and may also support non-native upland grasses and forbs such as the small-flowered ice plant and five-horn smotherweed.

***Frankenia salina* Herbaceous Alliance (Alkali heath marsh) (S3)**—Alkali heath is common in a variety of alliances in both the northern and southern areas and is most common with the pickleweed mat alliance described below. In some areas this species forms unbroken stands that constitute a separate alliance. Alkali heath is the dominant species and both saltgrass and common pickleweed may also be present.

Mud Flats—Associated with tidal areas and are unvegetated, lacking cover by emergent plants; however, they are often vegetated only by algal mats.

***Salicornia pacifica* Herbaceous Alliance (Pickleweed Mats)—(Tidal) (S3)**—The most common wetland alliance on the site. Dominant plant species include common pickleweed, alkali heath, saltwort, (*Batis maritima*), fleshy jaumea (*Jaumea carnosa*), estuary seablite (*Sueada esteroa*), shoregrass, sea lavender, Parish’s glasswort, and salt grass.

Tidal areas south of the berm which separate Steamshovel Slough from the oil fields are dominated by saltwort and Bigelow’s pickleweed (*Salicornia bigelovii*), with occasional patches of common pickleweed and occasional individuals of sea lavender.

***Salix gooddingii* Woodland Alliance (Black willow thickets) (S3)**—Black willow (*Salix gooddingii*) is dominant and in many cases consists of a single large tree that was of sufficient size to be included as a mapping unit. The understory varies substantially throughout the site but that may include one or more of the following species: saltgrass, tall nutsedge (*Cyperus eragrostis*), seaside heliotrope, alkali weed (*Cressa truxillensis*), with non-natives that include Spanish sunflower and curly dock.

***Spartina foliosa* Herbaceous Alliance (California cordgrass marsh) (S3.2)**—Within Steamshovel Slough. Cordgrass (*Spartina foliosa*) is dominant with other species including common pickleweed and saltwort.

Tidal Channels (Tidal)—Within the Steamshovel Slough and area south of the berm, all of which is included in the northern area.

***Typha domingensis*—Herbaceous Alliance (Cattail Marshes) (S5)**—Consists of non-tidal fresh water marsh dominated by southern cattail (*Typha domingensis*). Other species include tall nutsedge, alkali bulrush (*Bolboschoenus maritimus*), and California bulrush (*Schoenoplectus californicus*).

Unvegetated Flats—(Wetland)—Unvegetated Flats (Wetland) are common south of the Steamshovel Slough berm. As noted above for Unvegetated Flats (Upland), Unvegetated Flats (Wetland) are distinguished from the upland areas in that at a minimum they exhibit either wetland hydrology or hydric soils and, therefore, meet the CCA definition of wetlands. The presence of wetland hydrology was determined through direct observations in the field during data collection associated with the wetland delineation or through review of historic aerial photographs for ponding.

City Property Site

The City Property site comprises approximately 33.32 acres and contains a mosaic of wetland alliances mixed with areas disturbed by ongoing oil extraction activities. Vegetation alliances are described below in **Table 3.3-3, Summary of Vegetation and Land-Cover Types: City Property Site**. **Table 3.3-4, Summary of Vegetation and Land-Cover Types: City Property Site (Off Site in City’s Right-of-Way)**, describes “off-site” vegetation alliances within the City’s right-of-way along 2nd Street and within the northern and southern segments of the pipeline. The majority of vegetation data was provided by the City of Long Beach (Placeworks and VCS Environmental 2016) and supplemented by Glenn Lukos Associates, Inc. (GLA 2017a).

Table 3.3-3 Summary of Vegetation and Land-Cover Types: City Property Site

Vegetation	Acres
Upland Alliances	
Development	1.43
Ruderal Uplands (e.g., <i>Carpobrotus edulis</i> or Other Ice Plants Semi-Natural Herbaceous Stands [Ice plant mats and/or <i>Bassia hyssopifolia</i> Semi-Natural Herbaceous Stands Five-horn smotherweed thickets])	3.56
Vegetation Free Zone (Unvegetated Flats [Upland])	7.29
<i>Upland Alliances Subtotal</i>	12.28
Wetland Alliances	
Mulefat Scrub (<i>Baccharis salicifolia</i> Shrubland Alliance [Mulefat Thickets] [S4])	1.54
Ruderal Wetlands (<i>Bassia hyssopifolia</i> Semi-Natural Herbaceous Stands Five-horn smotherweed thickets). In addition, some areas mapped as Ruderal Wetlands consist of <i>Cress truxillensis–Distichlis spicata</i> Herbaceous Alliance (Alkali weed—saltgrass flats)(S4)	2.42
Salt Flat (Unvegetated Flats—[Wetland])	0.64
Southern Coastal Brackish Marsh (<i>Typha domingensis</i> —Herbaceous Alliance [Cattail Marshes] [S5]). Includes areas also containing pickleweed mats and saltgrass flats.	6.58
Southern Coastal Salt Marsh (<i>Salicornia pacifica</i> Herbaceous Alliance [Pickleweed Mats] [S3])	2.21
Southern Willow Scrub (<i>Salix lasiolepis</i> Shrubland Alliance [Arroyo willow thickets] [S4])	0.28
Alkali Meadow (<i>Frankenia salina</i> Herbaceous Alliance [Alkali heath marsh] [S3] and/or <i>Distichlis spicata</i> Herbaceous Alliance [Saltgrass Flats] [S4])	7.37
<i>Wetland Alliances Subtotal</i>	21.04
Total	33.32

SOURCE: Glenn Lukos Associates, Inc., 2017a.

**Table 3.3-4 Summary of Vegetation and Land-Cover Types:
City Property Site (Off Site in City’s Right-of-Way)**

Vegetation	Acres
Upland Alliances	
Development	0.04
Annual Non-Native Grassland	0.01
Ornamental	0.05
Ruderal Uplands (e.g., <i>Carpobrotus edulis</i> or Other Ice Plants Semi-Natural Herbaceous Stands (Ice plant mats and/or <i>Bassia hyssopifolia</i> Semi-Natural Herbaceous Stands Five-horn smotherweed thickets)	0.08
Vegetation Free Zone (Unvegetated Flats [Upland])	0.10
<i>Upland Alliances Subtotal</i>	<u>0.28</u>
Wetland Alliances	
Mulefat Scrub (<i>Baccharis salicifolia</i> Shrubland Alliance [Mulefat Thickets] [S4])	0.03
Ruderal Wetlands (<i>Bassia hyssopifolia</i> Semi-Natural Herbaceous Stands Five-horn smotherweed thickets). In addition, some areas mapped as Ruderal Wetlands consist of <i>Cress truxillensis</i> – <i>Distichlis spicata</i> Herbaceous Alliance (Alkali weed— saltgrass flats) (G4S4)	0.39
Southern Coastal Brackish Marsh (<i>Typha domingensis</i> —Herbaceous Alliance [Cattail Marshes] [S5]). Includes areas also containing pickleweed mats and saltgrass flats.	0.47
<i>Wetland Alliances Subtotal</i>	<u>0.89</u>
Total	<u>1.17</u>
SOURCE: Glenn Lukos Associates, Inc., 2017a.	

Upland Land-Cover Types

Development—Includes Shopkeeper Road, a small paved area near the southwest end of the site, area developed for purposes of oil extraction in the central portion of the site, specifically for storage tanks, and the pipeline alignment through the intersection of 2nd Street and Studebaker Road.

Ruderal Uplands—Supports a predominance of non-native grasses and forbs. These areas lack both wetland hydrology and hydric soils and, therefore, are considered uplands even under the CCA.

Vegetation Free Zones—Do not support vegetation; rather these areas are disturbed and consist of roads, oil well pads, and other areas necessary for oil field operations.

Wetland Land-Cover Types

Mulefat Scrub—Dominated by mulefat and understory components including non-native grasses and forbs.

Ruderal Wetland—Supports a predominance of non-native grasses and forbs that are wetland indicator species. These areas may or may not have wetland hydrology and hydric soils but would presumably be considered wetlands based on a predominance of wetland plants.

Salt Flats—Lacking vegetation; however, these areas exhibit ponding during the rainy season and, therefore, presumably meet the CCA minimum threshold for wetlands.

Southern Coastal Brackish Marsh—Is located throughout the site and supports southern cattail, California bulrush, Olney’s bulrush (*Schoenoplectus americanus*), and alkali bulrush.

Southern Coastal Salt Marsh—Located primarily in the southern portion of the site and supports a mosaic of saltmarsh species, including common pickleweed, saltgrass, shoregrass, fleshy jaumea, alkali heath, and sea lavender. Areas on site that support this alliance are non-tidal and may also be characterized as pickleweed mats.

Southern Willow Scrub—Located on the western perimeter of the southern coastal brackish marsh in the central portion of the site and supports various species of willow tree, with black willow as the most common species.

Alkali Meadow—Located throughout the site and supports a mosaic of saltmarsh species, saltgrass, shoregrass, fleshy jaumea, alkali heath, and marsh rosemary.

Pumpkin Patch Site

The Pumpkin Patch site and adjoining City right-of-way comprise approximately 7.90 acres. Vegetation alliances are described below in **Table 3.3-5, Summary of Vegetation and Land-Cover Types: Pumpkin Patch Site**. The Pumpkin Patch site includes an upper level area with associated slopes plus a lower area that is immediately adjacent to the City Property site. The flat areas of the upper portion of the site have been used for decades as a commercial site with an operating pumpkin patch in October leading up to Halloween, and then converted to a Christmas tree lot through December. The lot is located on the southwest portion of the site and the remainder is used for parking. The lower portion of the site in the northeast contains one oil well surrounded by pickleweed mats and unvegetated flats. The Pumpkin Patch site and adjoining City right-of-way contain three vegetation alliances and two additional land-use/land cover types. The City right-of-way comprises almost exclusively disturbed areas, with a small patch of ornamental vegetation in the eastern corner.

Table 3.3-5 Summary of Vegetation and Land-Cover Types: Pumpkin Patch Site

Vegetation	Acres
Upland Alliances	
Disturbed/Developed	6.45
Annual Non-Native Grassland	0.02
Ice Plant Mats	0.59
Ornamental (Eucalyptus Groves)	0.03
<i>Upland Alliances Subtotal</i>	7.09
Wetland Alliances	
Pickleweed Mats	0.55
Unvegetated Flats (Wetland)	0.26
<i>Wetland Alliances Subtotal</i>	0.81
Total	7.90

SOURCE: Glenn Lukos Associates, Inc., 2017a.

Upland Alliances and Land-Cover Types

Disturbed/Developed—Accounts for the vast majority of the site due to the commercial uses, including vehicle parking, and exhibits highly compacted soil. Where there is vegetation, it is sparse and consists of non-natives such as small flowered ice plant, tocalote, five-horn smotherweed, and yellow sweet clover.

***Bromus diandrus*, *rubens* Semi-Natural Herbaceous Stands (Annual brome grasslands) (Non-Native Grasslands)**—Non-native grasslands are dominated by ripgut brome (*Bromus diandrus*), which is very dense due to the exclusion of other species.

***Carpobrotus edulis* or Other Ice Plants Semi-Natural Herbaceous Stands (Ice plant mats)**—Common at the northeast and southwest portions of the site, above the lowland area. This alliance is dominated by non-native small-flowered ice plant with some emergent non-native grasses, primarily red brome.

***Eucalyptus (globulus)* Semi-Natural Woodland Stands (Eucalyptus groves)**—Occur at the extreme northeast corner of the site. The area exhibits a mix of mature eucalyptus trees with seedlings in the understory along with non-native grasses and small-flowered ice plant.

Wetland Alliances and Land-Cover Types

***Salicornia pacifica* Herbaceous Alliance (Pickleweed Mats) (S3)**—The lower portion of the site in the northeast area adjacent to the City Property site supports common pickleweed and shoregrass (*Distichlis littoralis*) as dominant species. Other species present include saltgrass (*Distichlis spicata*), fleshy jaumea (*Jaumea carnosa*), and sea lavender (*Limonium californicum*).

Unvegetated Flats—(Wetland)—Interspersed with the pickleweed mats and unvegetated, these areas exhibit either wetland hydrology and/or hydric soils. Levels of disturbance vary from limited to substantial due to historic oil field operations. Such areas typically exhibit saline or alkaline soils; however, they do not exhibit characteristics of salt pannes.

LCWA Site

The LCWA site consists of approximately 4 acres that are used as a storage yard. This site is highly disturbed with a perimeter of non-native trees with Aleppo pine (*Pinus halepensis*) as the most common tree on the site. The site contains only upland vegetation as described below and includes three vegetation alliances and one additional land cover type. Vegetation alliances are described below in **Table 3.3-6, Summary of Vegetation and Land-Cover Types: Los Cerritos Wetlands Authority (LCWA) Site**.

Table 3.3-6 Summary of Vegetation and Land-Cover Types: Los Cerritos Wetlands Authority (LCWA) Site

Vegetation	Acres
Upland Alliances	
Disturbed/Developed	3.11
Mulefat Thickets	0.10
Annual Non-Native Grassland	0.26
Ornamental (Aleppo Pine Stands)	0.60
Total	4.07

SOURCE: Glenn Lukos Associates, Inc., 2017a.

Upland Alliances and Land-Cover Types

Disturbed/Developed—Accounts for the vast majority of the site and is centered primarily in the middle of the site due to the commercial uses, including vehicle parking and equipment staging. This portion of the site exhibits highly compacted soil, and where there is vegetation it is sparse and consists of non-natives such as small flowered ice plant (*Mesembryanthemum nodiflorum*).

***Baccharis salicifolia* Shrubland Alliance (Mulefat Thickets) (S4)**—Grows along the disturbed edges of the site. This alliance consists of generally small thickets of mulefat (*Baccharis salicifolia*) with an understory that consists of small-flowered ice plant, five-horn smotherweed and upland non-native grasses.

***Bromus diandrus, rubens* Semi-Natural Herbaceous Stands (Annual brome grasslands) (Non-Native Grasslands)**—Non-native grasslands support red brome, ripgut, and slender wild oats as well as non-native forbs including small-flowered ice plant, five-horn smotherweed, Australian saltbush and tocalote.

***Pinus halepensis* Semi-Natural Woodland (Aleppo pine stands) (Ornamental)**—Surrounds much of the site with the highest concentration along the eastern and northern portions of the site. Other non-native trees include canary island date palms, Mexican fan palms, and others.

3.3.2.3 Special-Status Plants

Special-status plants are legally protected under the California Endangered Species Act (CESA) (Fish and Game Code Sections 2050 et seq.), the Native Plant Protection Act (Fish and Game Code Sections 1900 et seq.) and/or the federal Endangered Species Act (FESA), other regulations, or considered sufficiently rare by the scientific community to qualify for such a listing. For purposes of this EIR, special-status plant species include the following categories:

1. Officially listed by California or the federal government as endangered, threatened, or rare;
2. A candidate for state or federal listing as endangered, threatened, or rare;
3. Taxa that meet the criteria for listing, even if not currently included on any list, as described in *CEQA Guidelines* 15380; and
4. Taxa listed in the CNPS Inventory of Rare and Endangered Plants of California with a California Rare Plant Rank (CRPR) of 1, 2, or 4.

Table 3.3-7, Special-Status Plants, provides a summary of all plants evaluated for the project based on plants identified by the December 2015 CNDDDB as occurring (either currently or historically) in the USGS Los Alamitos, Long Beach, Seal Beach, and San Pedro Quadrangles and a review of the 2001 CNPS Inventory, CNPS 8th edition online inventory (CNPS 2010), and any other special-status plants that are known to occur within the vicinity of the individual sites based on numerous surveys, or for which potentially suitable habitat occurs on site.

Table 3.3-7 Special-Status Plants

Species	Status	Habitat	Potential for Occurrence
Aphanisma <i>Aphanisma blitoides</i>	Federal: None State: None CRPR: 1B.2	Coastal bluff scrub, coastal dunes, coastal scrub. On bluffs and slopes near the ocean in sandy or clay soils.	Not observed on site, no suitable habitat present.
Blochman's dudleya <i>Dudleya blochmanae</i> ssp. <i>Blochmanae</i>	Federal: None State: CSC CRPR: 1B.1	Coastal bluff scrub, chaparral, coastal scrub, valley and foothill grassland. Rocky, often clay or serpentinite soils.	Not observed on site, no suitable habitat present.
California Box-thorn <i>Lycium californicum</i>	Federal: None State: None CRPR: 4.2	Coastal bluff scrub, coastal scrub.	Not observed on site, no suitable habitat present.
California Orcutt grass <i>Orcuttia californica</i>	Federal: FE State: SE CRPR: 1B.1	Vernal pools.	Not observed on site, no suitable habitat present.
Catalina crossosoma <i>Crossosoma californicum</i>	Federal: None State: None CRPR: 1B.2	Rocky soils in chaparral and coastal scrub.	Not observed on site, no suitable habitat present.
Chaparral sand verbena <i>Abronia villosa</i> var. <i>aurita</i>	Federal: None State: None CRPR: 1B.1	Sandy soils in chaparral, coastal sage scrub.	Not observed on site, no suitable habitat present.
Cliff spurge <i>Euphorbia misera</i>	Federal: None State: None CRPR: 2.2	Coastal bluff scrub, coastal scrub, Mojavean desert scrub. Rocky soils.	Not observed on site, no suitable habitat present.
Coast woolly-heads <i>Nemaacaulis denudata</i> var. <i>denudata</i>	Federal: None State: None CRPR: 1B.2	Coastal dunes.	Not observed on site, no suitable habitat present.
Coulter's goldfields <i>Lasthenia glabrata</i> ssp. <i>coulteri</i>	Federal: None State: None CRPR: 1B.1	Playas, vernal pools, marshes and swamps (coastal salt).	Not observed on site, no suitable habitat present. Not detected during surveys.
Coulter's saltbush <i>Atriplex coulteri</i>	Federal: None State: None CRPR: 1B.2	Coastal bluff scrub, coastal dunes, coastal sage scrub, valley and foothill grassland. Occurring on alkaline or clay soils.	Not observed on site, no suitable habitat present. Not detected during surveys.
Davidson's saltscale <i>Atriplex serenana</i> var. <i>davidsonii</i>	Federal: None State: None CRPR: 1B.2	Alkaline soils in coastal sage scrub, coastal bluff scrub.	Not observed on site, no suitable habitat present. Not detected during surveys.
Decumbent goldenbush <i>Isocoma menziesii</i> var. <i>decumbens</i>	Federal: None State: None CRPR: 1B.2	Chaparral, coastal scrub (sandy, often in disturbed areas).	Not observed on site, no suitable habitat present. Not detected during surveys.
Estuary seablite <i>Suaeda esteroa</i>	Federal: None State: None CRPR: 1B.2	Coastal salt marsh and swamps. Occurs in sandy soils.	Occurs on site in tidal salt marsh areas primarily in Steamshovel Slough.
Gambel's water cress <i>Rorippa gambellii</i>	Federal: FE State: ST CRPR: 1B.1	Marshes and swamps.	Not observed on site, no suitable habitat present. Not detected during surveys.
Giardner's yampah <i>Perideridia gairdneri</i> ssp. <i>Gairdneri</i>	Federal: None State: CSC CRPR: 4.2	Broadleafed upland forest, chaparral, coastal prairie, valley and foothill grassland, vernal pools. Vernally mesic soils.	Not observed on site, no suitable habitat present. Not detected during surveys.
Golden-spined cereus <i>Bergerocactus emoryi</i>	Federal: None State: None CRPR: 2.2	Closed-cone coniferous forest, chaparral, coastal scrub. Sandy soils.	Not observed on site, no suitable habitat present. Not detected during surveys.
Island green dudleya <i>Dudleya virens</i> ssp. <i>insularis</i>	Federal: None State: None CRPR: 1B.2	Rocky soils in coastal bluff scrub and coastal scrub.	Not observed on site, no suitable habitat present. Not detected during surveys.

Table 3.3-7 Special-Status Plants

Species	Status	Habitat	Potential for Occurrence
Los Angeles sunflower <i>Helianthus nuttallii</i> ssp. <i>parishii</i>	Federal: None State: None CRPR: 1A	Salt and freshwater marshes, historically in Los Angeles, Orange, Riverside and San Bernardino Counties. Still Presumed to be extinct. Plant discovered in Santa Clarita most likely hybrid between <i>H. nuttallii</i> and <i>H. californicus</i> .	Not observed on site, no suitable habitat present. Not detected during surveys.
Lyon's pentachaeta <i>Pentachaeta lyonii</i>	Federal: FE State: SE CRPR: 1B.1	Chaparral (openings), coastal sage scrub, valley and foothill grassland.	Not observed on site, no suitable habitat present. Not detected during surveys.
Many-stemmed dudleya <i>Dudleya multicaulis</i>	Federal: None State: None CRPR: 1B.2	Chaparral, coastal sage scrub, valley and foothill grassland. Often occurring in clay soils.	Not observed on site, no suitable habitat present. Not detected during surveys.
Mud nama <i>Nama stenocarpum</i>	Federal: None State: None CRPR: 2.2	Vernal pools and freshwater seasonal ponds.	Not observed on site, no suitable habitat present. Not detected during surveys.
Oval-leaved live-forever <i>Santa Monica Mountains dudleya</i>	Federal: None State: None CNPS: List 1B.2	Chaparral, coastal scrub. Volcanic and/or rocky soils.	Not observed on site, no suitable habitat present. Not detected during surveys.
Palmer's grapplinghook <i>Harpagonella palmeri</i>	Federal: None State: CSC CRPR: 4.2	Chaparral, coastal scrub, valley and foothill grassland. Clay soils.	Not observed on site, no suitable habitat present. Not detected during surveys.
Parish's brittlescale <i>Atriplex parishii</i>	Federal: None State: None CRPR: 1B.1	Chenopod scrub, playas, vernal pools.	Not observed on site, no suitable habitat present. Not detected during surveys.
Prostrate navarretia <i>Navarretia prostrata</i>	Federal: FSC State: None CRPR: 1B.1	Coastal sage scrub, valley and foothill grassland (alkaline), vernal pools. Occurring in mesic soils.	Not observed on site, no suitable habitat present. Not detected during surveys.
Rayless ragwort <i>Senecio aphanactis</i>	Federal: None State: None CRPR: 2.2	Chaparral, cismontane woodland, coastal scrub. Sometimes alkaline soils.	Not observed on site, no suitable habitat present. Not detected during surveys.
Robinson's pepper-grass <i>Lepidium virginicum</i> var. <i>robinsonii</i>	Federal: None State: None CRPR: 1B.2	Chaparral, coastal scrub.	Not observed on site, no suitable habitat present. Not detected during surveys.
Salt marsh bird's-beak <i>Chloropyron maritimus</i> ssp. <i>maritimus</i>	Federal: FE State: SE CRPR: 1B.2	Coastal dune, coastal salt marshes and swamps.	Highly distinctive species not detected during surveys. Potentially suitable habitat present in salt marsh areas in Steamshovel Slough.
San Bernardino aster <i>Symphyotrichum defoliatum</i>	Federal: None State: None CRPR: 1B.2	Meadows and seeps, marshes and swamps, coastal scrub, cismontane woodland, lower montane coniferous forest, grassland. Vernal mesic grassland or near ditches, streams and springs; disturbed areas.	Not observed on site, no suitable habitat present. Not detected during surveys.
San Fernando Valley spineflower <i>Chorizanthe parryi</i> var. <i>fernandina</i>	Federal: FSC State: SE CRPR: 1B.1	Coastal sage scrub, occurring on sandy soils.	Not observed on site, no suitable habitat present. Not detected during surveys.
Sanford's arrowhead <i>Sagittaria sanfordii</i>	Federal: None State: None CRPR: 1B.2	Marshes and swamps.	Not detected during surveys. No potential to occur on site due to lack of suitable habitat and site is outside of historic range (i.e., no records in Los Angeles County).

Table 3.3-7 Special-Status Plants

Species	Status	Habitat	Potential for Occurrence
Santa Barbara morning-glory <i>Calystegia sepium</i> ssp. <i>binghamiae</i>	Federal: None State: None CRPR: 1A	Coastal marshes.	Not detected during surveys. No potential to occur on site due to extinction in California.
Santa Catalina Island desert-thorn <i>Lycium brevipes</i> var. <i>hassei</i>	Federal: None State: None CRPR: 1B.1	Coastal bluff scrub, coastal scrub.	Not observed on site, no suitable habitat present. Not detected during surveys.
Seaside calandrinia <i>Calandrinia maritima</i>	Federal: None State: None CRPR: 4.2	Coastal bluff scrub, coastal scrub, valley and foothill grassland. Sandy soils.	Not observed on site, no suitable habitat present. Not detected during surveys.
South coast saltscale <i>Atriplex pacifica</i>	Federal: None State: None CRPR: 1B.2	Coastal bluff scrub, coastal dunes, coastal sage scrub, playas.	Not observed on site, no suitable habitat present. Not detected during surveys.
Southern tarplant <i>Centromadia parryi</i> ssp. <i>australis</i>	Federal: None State: None CRPR: 1B.1	Disturbed habitats, margins of marshes and swamps, vernal mesic valley and foothill grassland, vernal pools.	Occurs on Synergy Oil Field, City Property, and Pumpkin Patch sites.
Southwestern spiny rush <i>Juncus acutus</i> ssp. <i>Leopoldii</i>	Federal: None State: None CRPR: 4.2	Mesic coastal dunes, alkaline meadows and seeps, coastal salt marshes and swamps.	This perennial species is highly distinctive and easily detected and was not detected on any of the individual sites; although suitable habitat is present on Synergy Oil Field and City Property sites.
Ventura Marsh milk-vetch <i>Astragalus pycnostachyus</i> var. <i>lanosissimus</i>	Federal: FE State: SE CNPS: List 1B.1	Coastal salt marsh. Within reach of high tide or protected by barrier beaches, more rarely near seeps on sandy bluffs.	Not detected during surveys. Low to Moderate potential to occur in marsh areas in Steamshovel Slough.
Western dichondra <i>Dichondra occidentalis</i>	Federal: None State: None CRPR: 4.2	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland.	Not observed on site, no suitable habitat present.
Woolly seablite <i>Suaeda taxifolia</i>	Federal: None State: None CRPR: 4.2	Coastal bluff scrub, coastal dunes, margins of coastal salt marshes and swamps.	Observed in single location on northern side of Steamshovel Slough.

SOURCE: Glenn Lukos Associates, Inc., 2017a; CNDDDB, 2017a.

STATUS CODES:

Federal

FE = Federally Endangered

FT = Federally Threatened

State

SE = State Endangered

ST = State Threatened

California Rare Plant Rank (CRPR)

CRPR 1A = Plants presumed extinct in California;

CRPR 1B = Plants considered rare, threatened or endangered in California and elsewhere;

CRPR 2 = Plants considered rare, threatened or endangered in California, more common elsewhere;

CRPR 4 = Limited distribution, watch list.

CRPR Threat Ranks: 0.1 Seriously threatened in California (over 80 percent of occurrences threatened / high degree and immediacy of threat)

0.2 Fairly threatened in California (20–80 percent occurrences threatened / moderate degree and immediacy of threat)

0.3 Not very threatened in California (<20 percent of occurrences threatened / low degree and immediacy of threat or no current threats known)

Special-Status Plants Observed

Three special-status plants were observed during focused surveys: estuary seablite, southern tarplant, and woolly seablite, all of which occur on the Synergy Oil Field site. Southern tarplant also occurs on the City Property and Pumpkin Patch sites. No special-status plants occur on the LCWA site. Special-status plants detected during focused surveys are depicted in **Figure 3.3-2a, Synergy Oil Field Site—Special-Status Plants Map**, through **Figure 3.3-2c, Pumpkin Patch Site—Special-Status Plants Map**.

Estuary Seablite (*Suaeda esteroa*)

Estuary seablite is a perennial shrub designated as a CRPR 1B.2 that is known from Santa Barbara, Ventura, Los Angeles, Orange, and San Diego counties as well as from Baja California. Estuary seablite occurs in mid- to upper zones of coastal salt marshes. The flowering period occurs from May to October. This species was detected on the Synergy Oil Field site, where it occurs primarily within Steamshovel Slough and is most common in the mid- to upper-marsh areas growing on berms and slopes. It also occurs in the tidal areas immediately south of the berm that separates the Steamshovel Slough from the areas to the south. Approximately 650 individuals were detected.

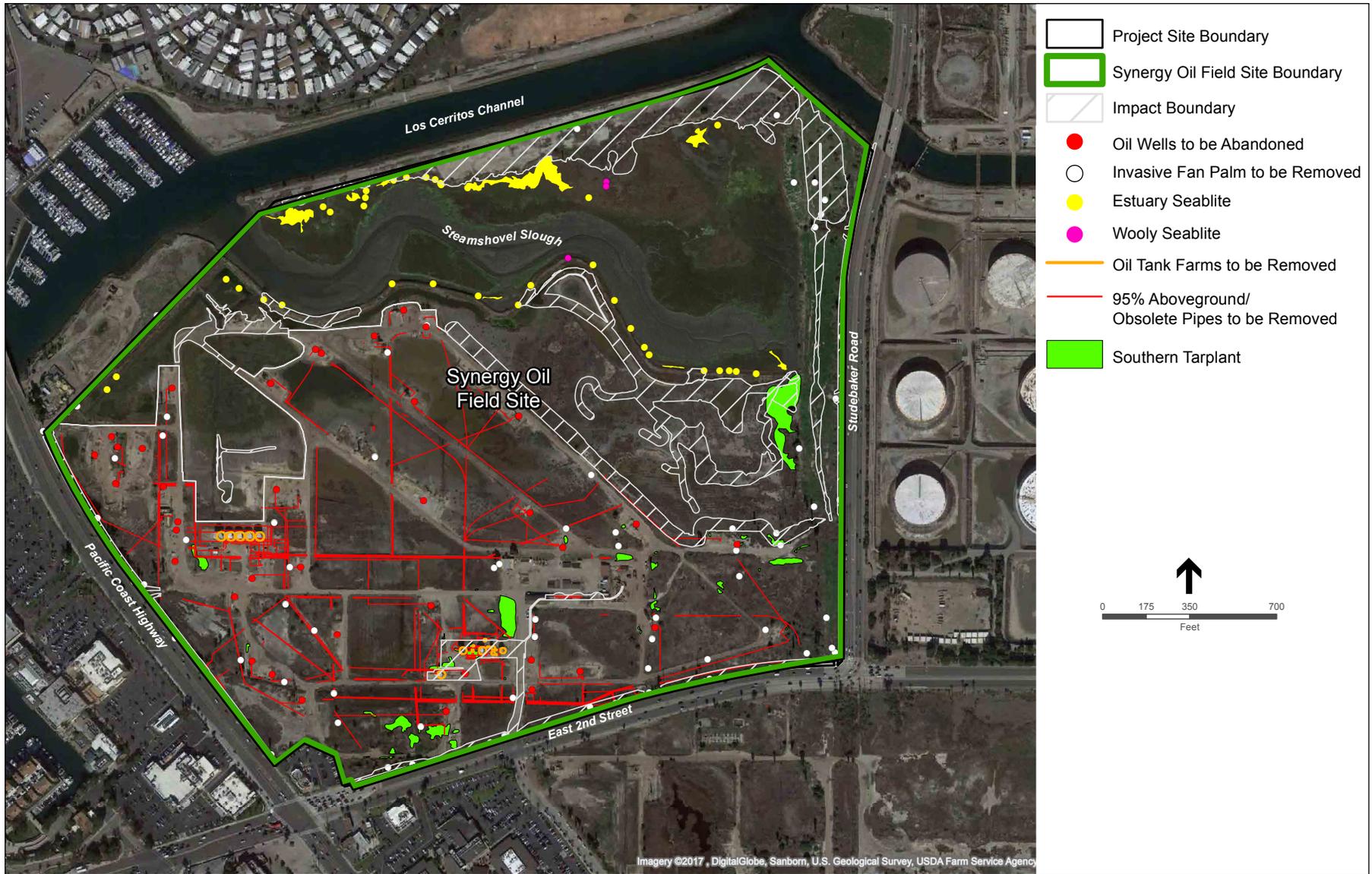
Southern tarplant (*Centromadia parryi* ssp. *australis*)

Southern tarplant is an annual herb designated as a CRPR 1B.1 that is known from Los Angeles, Orange, Santa Barbara, San Diego, and Ventura counties, as well as Santa Catalina Island and Baja California. Southern tarplant occurs at the margins of marshes and swamps, valley and foothill grasslands, and disturbed areas. The flowering period occurs from May to November. This species was detected on three of the four individual sites including the Synergy Oil Field, City Property, and Pumpkin Patch sites.

On the Synergy Oil Field site, southern tarplant is most common in disturbed areas, including road edges, existing and former oil well pads, and other disturbed ground. Based on surveys on this site as well as other sites in Southern California, the 2015 season exhibited large numbers as seen on the Synergy Oil Field site where the population was estimated (based on samples from each polygon using a 1-meter-square quadrat) to be approximately 279,000 individuals, which included numerous small individuals a few inches tall with one or two flowers and densities ranging from one plant per square meter up to 350 plants per square meter. Large plants (in excess of 12 inches and typically with multiple branches and scores of flowering heads) were estimated at between 10,000 and 20,000 individuals. By way of contrast in 2016, numbers are smaller by orders of magnitude. Based on sampling at representative locations, the population in 2016 on the site is estimated to range between 5,500 and 8,000 individuals.

The Pumpkin Patch site occurrence of southern tarplant is associated with the shallow seasonal depressions. Approximately 155 individuals were detected in 2016.

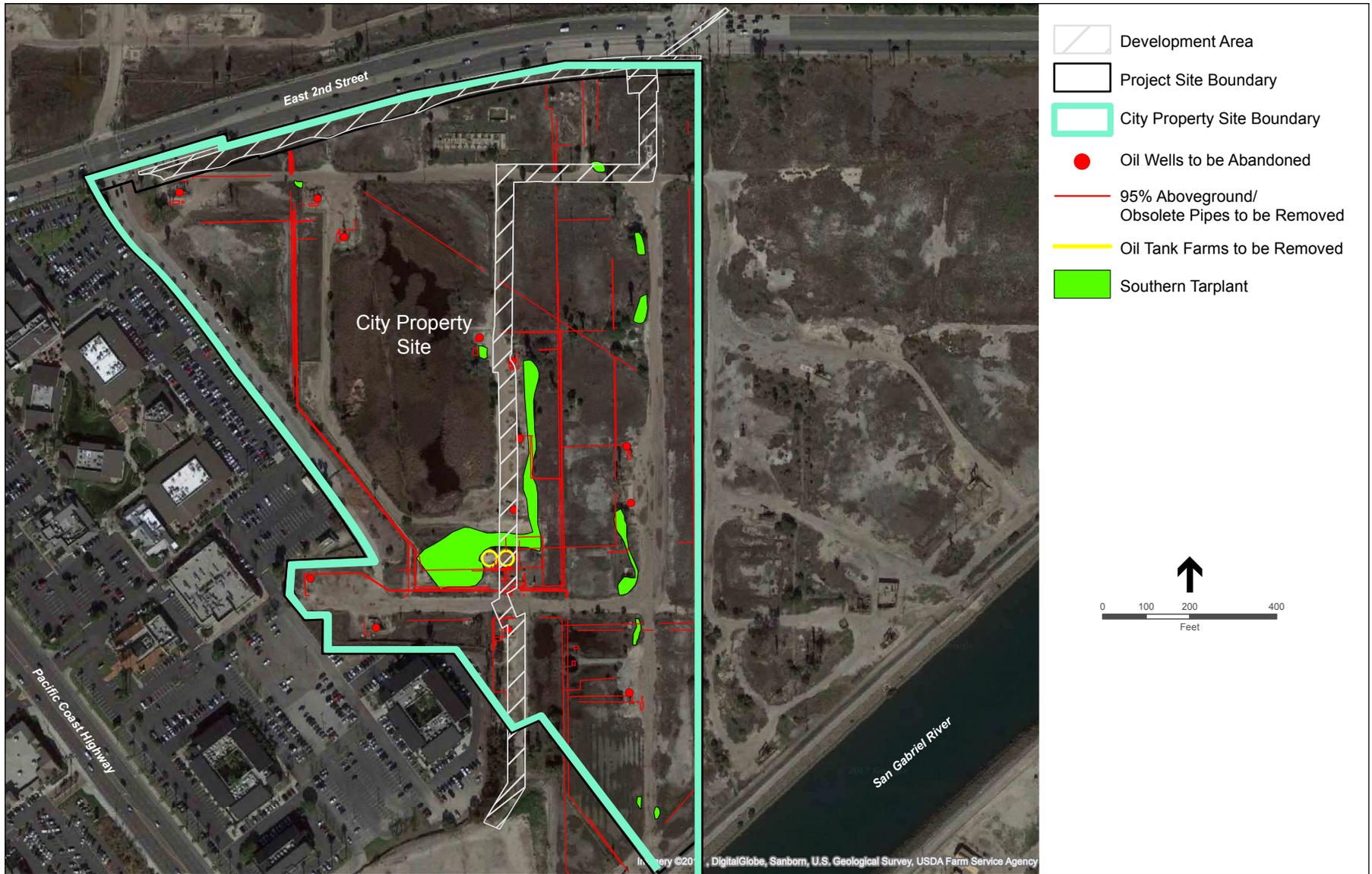
On the City Property site, southern tarplant occurs along the road edges and in disturbed areas. Based on site reconnaissance surveys conducted between 2011 and 2013, the population is estimated to be between 200 and 400 plants.



SOURCE: Glenn Lukos Associates

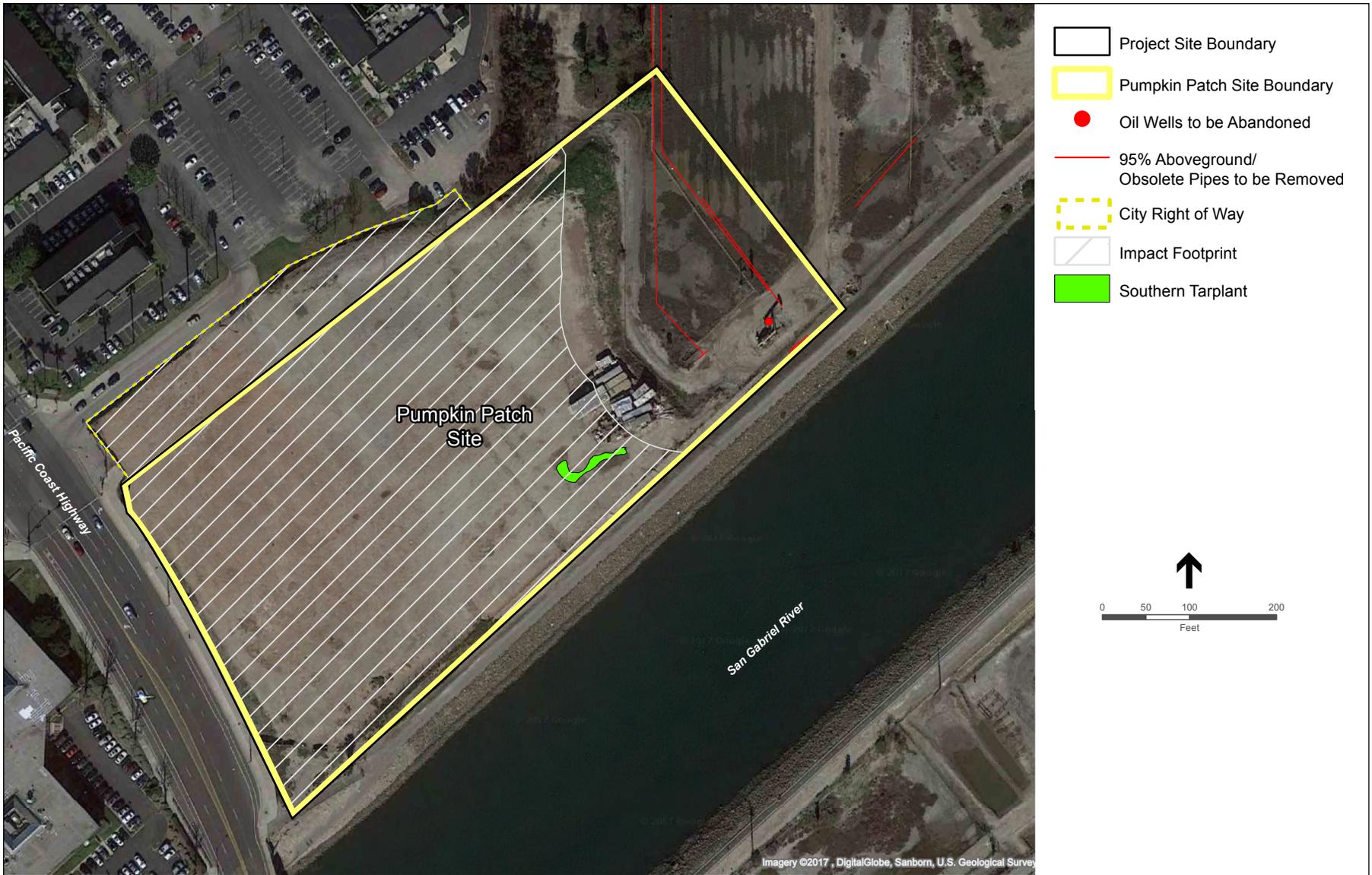
Long Beach Cerritos Wetland . 150712

Figure 3.3-2a
Synergy Oil Field Site – Special-Status Plants Map



SOURCE: Glenn Lukos Associates

Long Beach Cerritos Wetland . 150712
Figure 3.3-2b
 City Property Site – Special-Status Plants Map



SOURCE: Glenn Lukos Associates

Long Beach Cerritos Wetland . 150712

Figure 3.3-2c
Pumpkin Patch Site – Special-Status Plants Map

Woolly Seablite (*Suaeda taxifolia*)

Woolly seablite is a perennial shrub designated as a CRPR 4.2 that is known from San Luis Obispo, Santa Barbara, Ventura, Los Angeles, Orange, and San Diego counties as well as from Baja California, the Channel Islands and the Central Valley. Woolly seablite occurs in upper zones of coastal salt marshes as well as on coastal bluffs, coastal sage scrub, and at the edge of alkali marshes. The flowering period occurs year-round. This species was detected on the Synergy Oil Field site, where it occurs in upper marsh areas or on berms associated with Steamshovel Slough. Approximately 10 individuals were detected.

Special-Status Wildlife

Special-status wildlife species are legally protected under CESA, FESA, or other regulations or are considered sufficiently rare by the scientific community to qualify for such a listing. For purposes of this EIR, special-status wildlife species include:

1. Officially listed by the state or the federal government as endangered, threatened, or rare;
2. A candidate for State or federal listing as endangered, threatened, or rare;
3. Taxa designated by the Legislature as Fully Protected under Fish and Game Code Sections 3511 (birds), 4700 (mammals), and 5050 (reptiles and amphibians);
4. Taxa designated by the CDFW as California Species of Special Concern;
5. Taxa that meet the criteria for listing, even if not currently included on any list, as described in *CEQA Guidelines* Section 15380; and
6. Taxa that are biologically rare, very restricted in distribution, or declining throughout their range but not currently threatened with extirpation (includes species with a CNDDDB state rank of S1, S2, or S3).

Table 3.3-8, Special-Status Wildlife, provides a summary of all species evaluated for this EIR based on (1) species identified by the 2015 CNDDDB as occurring (either currently or historically) in the USGS Los Alamitos, Long Beach, Seal Beach, and San Pedro Quadrangles and (2) records of special-status species that are known to occur within the vicinity of the project, or for which potentially suitable habitat occurs on site. Following the table, additional discussions are provided for any special-status animals observed on site or for which potentially suitable habitat occurs on the site.

Table 3.3-8 Special-Status Wildlife

Species Name	Status	Habitat Requirements	Potential for Occurrence
Invertebrates			
Crotch bumble bee <i>Bombus crotchii</i>	Federal: None State: None CNDDDB: S1S2	Relatively warm and dry sites, including the inner Coast Range of California and margins of the Mojave Desert.	Not detected during surveys. No potential to occur on site due to lack of suitable habitat.
Dorothy's El Segundo Dune weevil <i>Trigonoscuta dorothea dorothea</i>	Federal: None State: None CNDDDB: S1	Sand dunes in El Segundo, CA.	Not detected during surveys. No potential to occur on site due to lack of suitable habitat.
Mimic tryonia (California brackishwater snail) <i>Tryonia imitator</i>	Federal: None State: None CNDDDB: S2	Coastal areas with brackish waters.	Not detected during surveys. No potential to occur on site due to lack of suitable habitat.

Table 3.3-8 Special-Status Wildlife

Species Name	Status	Habitat Requirements	Potential for Occurrence
Monarch—California overwintering population <i>Danaus plexippus</i> <i>pop. 1</i>	Federal: None State: None CNDDDB: S2S3	Roosts in winter in wind-protected tree groves along the California coast from northern Mendocino to Baja California, Mexico.	Not detected during surveys. No potential to occur on site due to lack of suitable habitat.
Mudflat tiger beetle <i>Cicindela trifasciata</i> <i>sigmoidea</i>	Federal: None State: None CNDDDB: N/A	This predatory beetle inhabits salt marshes, mudflats and salt pannes where they make burrows in the intertidal zone.	This species has been documented on tidal mudflats in Steamshovel Slough.
Palos Verdes blue butterfly <i>Glaucopsyche</i> <i>lygdamus</i> <i>palosverdesensis</i>	Federal: FE State: None CNDDDB: S1	Locoweed and deerweed in the Palos Verdes Peninsula.	Not detected during surveys. No potential to occur on site due to lack of suitable habitat.
Salt marsh wandering skipper <i>Panoquina errans</i>	Federal: None State: None CNDDDB: S2	Coastal salt marsh and coastal strand areas dominated by saltgrass.	Suitable habitat on Synergy Oil Field, City Property, and Pumpkin Patch sites.
San Diego fairy shrimp <i>Branchinecta</i> <i>sandiegonsis</i>	Federal: FE State: None CNDDDB: S2	Seasonal vernal pools.	Marginally suitable habitat on Pumpkin Patch site, protocol surveys found the common versatile fairy shrimp. San Diego fairy shrimp is not expected to occur.
Sandy beach tiger beetle <i>Cicindela hirticollis</i> <i>gravidia</i>	Federal: None State: None CNDDDB: S2	Forages in open unvegetated areas such as marsh pannes and levees. Larvae burrow in moist unvegetated substrates.	Not observed, potentially suitable habitat within Streamshovel Slough.
Senile tiger beetle <i>Cicindela senilis frosti</i>	Federal: None State: None CNDDDB: S1	Open, unvegetated areas in or near salt marshes.	Not observed, potentially suitable habitat with Streamshovel Slough.
Riverside fairy shrimp <i>Streptocephalus</i> <i>woottoni</i>	Federal: FE State: None CNDDDB: S1S2	Deep seasonal vernal pools, with warm water, and low to moderate dissolved solids, that remained filled for extended periods of time. Annual grasslands or patches.	No suitable habitat within and of the individual sites due to the lack of long-lived (>2 months) vernal pools.
Western beach tiger beetle <i>Cicindela latesignata</i> <i>latesignata</i>	Federal: None State: None CNDDDB: S1	Forages in open unvegetated areas such as marsh pannes and levees. Larvae burrow in moist unvegetated substrates.	Not observed, potentially suitable habitat within Streamshovel Slough.
Western tidal-flat tiger beetle <i>Cicindela gabbii</i>	Federal: None State: None CNDDDB: S1	Open, unvegetated areas in or near salt marshes.	Not observed, potentially suitable habitat within Streamshovel Slough.
Amphibians			
Arroyo toad <i>Anaxyrus californicus</i>	Federal: FE State: None CDFW: CSC CNDDDB: S2S3	Historically along length of drainages; currently in headwaters, sandy washes and arroyos grown to willows, cottonwoods or sycamores.	No potential to occur on site due to a lack of suitable habitat on any of the individual sites.
California red-legged frog <i>Rana aurora draytonii</i>	Federal: FT State: None CDFW: CSC CNDDDB: S2S3	Permanent flowing water sources, including marshes, streams, lakes ponds; woodland or valley foothill grasslands; sufficient vegetative cover.	No potential to occur on site due to a lack of suitable habitat on any of the individual sites.
Western spadefoot toad <i>Spea hammondi</i>	Federal: None State: None CDFW: CSC CNDDDB: S3	Coastal sage scrub, vernal pools, and grasslands; breeds in associated temporary pools and riparian areas.	No potential to occur on site due to a lack of suitable freshwater seasonal ponds that pond for sufficient duration to support breeding on any of the individual sites.

Table 3.3-8 Special-Status Wildlife

Species Name	Status	Habitat Requirements	Potential for Occurrence
Reptiles			
Coast-horned lizard <i>Phrynosoma blainvillii</i>	Federal: None State: None CDFW: CSC CNDDDB: S3S4	Occurs in a variety of vegetation types including coastal sage scrub, chaparral, annual grassland, oak woodland, and riparian woodlands.	No potential to occur on site due to a lack of suitable habitat on any of the individual sites.
Coast patch-nosed snake <i>Salvadora hexalepis virgultea</i>	Federal: None State: None CDFW: CSC CNDDDB: S2S3	Open areas within coastal sage scrub, chaparral, grassland, desert scrub, washes, sand flats, & rocky areas.	No potential to occur on site due to a lack of suitable habitat on any of the individual sites.
Orange-throated whiptail <i>Aspidoscelis hyperythra</i>	Federal: None State: None CDFW: WL CNDDDB: S2S3	Inhabits low-elevation coastal scrub, chaparral, and valley-foothill hardwood habitats. Prefers washes & other sandy areas with patches of brush & rocks. Perennial plants necessary for its major food –termites.	No potential to occur on site due to a lack of suitable habitat on any of the individual sites.
Pacific green sea turtle <i>Chelonia mydas</i>	Federal: FT State: None CNDDDB: S1	Green turtles are generally found in fairly shallow waters (except when migrating) inside reefs, bays, and inlets. The turtles are attracted to lagoons and shoals with an abundance of marine grass and algae.	Potential foraging habitat within mouth of Steamshovel Slough on the Synergy Oil Field site.
Red diamond rattlesnake <i>Crotalus ruber ruber</i>	Federal: None State: None CDFW: CSC CNDDDB: S3	Chaparral, woodland, grassland, & desert areas from coastal San Diego county to the eastern slopes of the mountains. Occurs in rocky areas & dense vegetation. Needs rodent burrows, cracks in rocks or surface cover objects.	No potential to occur on site due to a lack of suitable habitat on any of the individual sites.
coast horned lizard <i>Phrynosoma blainvillii</i>	Federal: None State: None CDFW: CSC CNDDDB: S3S4	Occurs in a variety of vegetation types including coastal sage scrub, chaparral, annual grassland, oak woodland, and riparian woodlands. Sandy soils.	No potential to occur on site due to a lack of suitable habitat on any of the individual sites.
Silvery legless lizard <i>Anniella pulchra pulchra</i>	Federal: None State: None CDFW: CSC CNDDDB: S3	Sparse coastal sage scrub, chaparral, grassland, riparian and woodland habitats within moist sandy soil.	No potential to occur on site due to a lack of suitable habitat on any of the individual sites.
Western pond turtle <i>Emys marmorata</i>	Federal: None State: None CDFW: CSC CNDDDB: S3	Slow-moving permanent or intermittent streams, small ponds and lakes, reservoirs, abandoned gravel pits, permanent and ephemeral shallow wetlands, stock ponds, and treatment lagoons. Abundant basking sites and cover necessary, including logs, rocks, submerged vegetation, and undercut banks.	No potential to occur on any of the individual sites.
Two-striped garter snake <i>Thamnophis hammondi</i>	Federal: None State: None CDFW: CSC CNDDDB: S3S4	Highly aquatic. Found in freshwater marshes and riparian habitats, in or near permanent fresh water. Often along streams with rocky beds and riparian growth.	No potential to occur on site due to a lack of suitable habitat on any of the individual sites.
Birds			
American peregrine falcon <i>Falco peregrinus anatum</i>	Federal: None State: None CDFW: CFP CNDDDB: S3S4	Near wetlands, lakes, rivers or other water, on cliffs, banks, dunes, mounds, also human-made structures.	Potential foraging in Steamshovel Slough and City Property site. No suitable breeding sites on any of the four individual sites.
Bank swallow <i>Riparia riparia</i>	Federal: None State: ST CDFW: None CNDDDB: S2	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	No potential to occur on site due to a lack of suitable habitat on any of the individual sites.

Table 3.3-8 Special-Status Wildlife

Species Name	Status	Habitat Requirements	Potential for Occurrence
Belding's savannah sparrow <i>Passerculus sandwichensis beldingi</i>	Federal: None State: SE CDFW: None CNDDDB: S3	Coastal salt marshes. Nests in <i>Salicornia</i> sp. and about margins of tidal flats.	Suitable habitat within Steamshovel Slough and other areas of pickleweed habitat on Synergy Oil Field site as well as the City Property site. Observed in multiple locations on Synergy Oil Field site.
Bell's sage sparrow <i>Artemisospiza belli belli</i>	Federal: None State: None CDFW: WL CNDDDB: S3	Nests in chaparral dominated by fairly dense stands of chamise. Found in coastal sage scrub in south of range. Nest located on the ground beneath a shrub or in a shrub 6 to 18 inches above the ground.	No potential to occur on site due to a lack of suitable habitat on any of the individual sites.
Black skimmer <i>Rynchops niger</i>	Federal: None State: None CDFW: CSC CNDDDB: S2	Nests on gravel bars, low islets and sandy beaches, in unvegetated sites.	Not observed on site and low potential to occur within Steamshovel Slough for foraging.
Burrowing owl <i>Athene cunicularia</i>	Federal: None State: None CDFW: CSC CNDDDB: S3	Open, dry annual or perennial grasslands, deserts & scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	All four individual sites exhibit potential wintering habitat; however, this species was not detected during focused surveys.
California black rail <i>Laterallus jamaicensis coturniculus</i>	Federal: None State: ST CDFW: CFP CNDDDB: S1	Salt marshes bordering larger bays, coastal spartina marshes, inland in dense, shortgrass, shallow marshes.	Low potential to occur in marsh areas of Steamshovel Slough.
California Brown Pelican <i>Pelecanus occidentalis californicus</i>	Federal: None State: None CDFW: CFP	Coastal, salt bays, ocean, beaches. Nests on coastal islands of small to moderate size that afford immunity from attack by ground-dwelling predators.	Low potential to occur in marsh areas of Steamshovel Slough.
California least tern <i>Sternula antillarum browni</i>	Federal: FE State: SE CDFW: CFP CNDDDB: S2	Flat, vegetated substrates near the coast. Occurs near estuaries, bays, or harbors where fish is abundant.	Has been observed foraging in Steamshovel Slough, no suitable breeding areas on any of the four individual sites.
Coastal cactus wren <i>Campylorhynchus brunneicapillus couesi</i>	Federal: None State: None CDFW: CSC CNDDDB: S3	Southern California coastal sage scrub. Wrens require tall opuntia cactus for nesting and roosting.	No potential to occur on site due to a lack of suitable habitat on any of the individual sites.
Coastal California gnatcatcher <i>Polioptila californica californica</i>	Federal: FT State: None CDFW: CSC CNDDDB: S2	Low elevation coastal sage scrub and coastal bluff scrub.	No potential to occur on site due to a lack of suitable habitat on any of the individual sites.
Ferruginous hawk <i>Buteo regalis</i>	Federal: None State: None CDFW: WL CNDDDB: S3S4	Only present as wintering individuals. Prefers open grasslands and agricultural areas.	No potential to nest on site. No potential to forage on site.
Golden Eagle <i>Aquila chrysaetos</i>	Federal: None State: None CDFW: CFP CNDDDB: S3	In Southern California, occupies grasslands, brushlands, deserts, oak savannas, open coniferous forests, and montane valleys. Nests on rock outcrops and ledges.	Not observed on site. No potential to occur on site due to lack of suitable habitat.
Least Bell's vireo <i>Vireo belli pusillus</i>	Federal: FE State: SE CDFW: None CNDDDB: S2	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, <i>Baccharis</i> , mesquite.	No potential to occur on site due to lack of suitable habitat.

Table 3.3-8 Special-Status Wildlife

Species Name	Status	Habitat Requirements	Potential for Occurrence
Ridgway's rail <i>Rallus obsoletus</i>	Federal: FE State: SE CDFW: CFP CNDDDB: S1	Found in salt marshes where cordgrass and pickleweed are the dominant vegetation. Requires dense growth of either pickleweed or cordgrass for nesting or escape cover, feeds on mollusks and crustaceans.	Potential habitat within Steamshovel Slough.
Loggerhead shrike <i>Lanius ludovicianus</i>	Federal: None State: None CDFW: CSC CNDDDB: S4	Broken woodlands, savannah, pinyon-juniper, Joshua tree & riparian woodlands, desert oases, scrub & washes. Prefers open country for hunting with perches for scanning and fairly dense shrubs and brush for nesting.	No suitable habitat within project site.
Long-eared owl <i>Asio otus</i>	Federal: None State: None CDFW: CSC CNDDDB: S3?	Riparian bottomlands grown to tall willows & cottonwoods; also belts of live oak paralleling stream courses. Require adjacent open land productive of mice and presence of old nests of crows.	No potential to occur on site due to a lack of suitable habitat on any of the individual sites.
Merlin <i>Falco columbarius</i>	Federal: None State: None CDFW: WL CNDDDB: S3S4	Only present as wintering individuals. Forages in a variety of habitats including riparian areas such as present on the site.	Potential for foraging on Synergy Oil Field site (wintering only).
Northern harrier (nesting) <i>Circus cyaneus</i>	Federal: None State: None CDFW: CSC CNDDDB: S3	A variety of habitats, including open wetlands, grasslands, wet pasture, old fields, dry uplands, and croplands.	Potential for foraging on Synergy Oil Field site and limited potential for breeding.
Tri-colored blackbird <i>Agelaius tricolor</i>	Federal: None State: Candidate SE CDFW: CSC CNDDDB: S1S2	Requires open water, protected nesting & foraging area with insect prey within a few km of the colony.	No potential to occur on site due to a lack of suitable habitat on any of the individual sites.
Short-eared owl <i>Asio flammeus</i>	Federal: None State: None CDFW: CSC CNDDDB: S3	Found in swamplands, both fresh and salt; lowland meadows; irrigated alfalfa fields. Tule patches/tall grass needed for nesting/daytime seclusion. Nests on dry ground in depression concealed in vegetation.	Not observed on site during surveys. Low potential to occur during winter in Steamshovel Slough.
Southwestern willow flycatcher <i>Empidonax traillii extimus</i>	Federal: FE State: SE CNDDDB: S1	Riparian woodlands in Southern California.	No potential to occur on site due to a lack of suitable habitat on any of the individual sites.
Swainson's Hawk <i>Buteo swainsoni</i>	Federal: None State: ST CDFW: None CNDDDB: S3	Breeding habitat consists of grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, & agricultural or ranch lands. Requires adjacent suitable foraging areas such as grasslands or alfalfa or grain fields that support rodent populations.	No potential to occur on site due to a lack of suitable habitat on any of the individual sites.
Western least bittern <i>Ixobrychus exilis hesperis</i>	Federal: None State: None CDFW: CSC CNDDDB: S2	Colonial nester in marshlands and borders of ponds and reservoirs that provide ample cover. Nests usually placed low in tules over water.	No potential to occur on site due to a lack of suitable habitat on any of the individual sites.
Western snowy plover <i>Charadrius alexandrinus nivosus</i>	Federal: FT State: None CDFW: CSC CNDDDB: S2S3	Sandy or gravelly beaches along the coast, estuarine salt ponds, alkali lakes, and at the Salton Sea.	Potential foraging within Steamshovel Slough and other tidal areas on Synergy Oil Field site.
Western yellow-billed cuckoo <i>Coccyzus americanus occidentalis</i>	Federal: FT State: SE CNDDDB: S1	Dense, wide riparian woodlands with well-developed understories.	No potential to occur on site due to a lack of suitable habitat on any of the individual sites.

Table 3.3-8 Special-Status Wildlife

Species Name	Status	Habitat Requirements	Potential for Occurrence
White-tailed kite (nesting) <i>Elanus leucurus</i>	Federal: None State: None CDFW: CFP CNDDDB: S3S4	Low elevation open grasslands, savannah-like habitats, agricultural areas, wetlands, and oak woodlands. Dense canopies used for nesting and cover.	Potential foraging on Synergy Oil Field site and also limited potential for nesting at Synergy Oil Field, City Property, and LCWA sites.
Yellow-breasted chat <i>Icteria virens</i>	Federal: None State: None CDFW: CSC CNDDDB: S3	Summer resident; inhabits riparian thickets of willow & other brushy tangles near watercourses. Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 feet of ground.	No potential to occur on site due to a lack of suitable habitat on any of the individual sites.
Yellow warbler <i>Dendroica petechia brewsteri</i>	Federal: None State: None CDFW: CSC CNDDDB: S3S4	Riparian plant associations. Prefers willows, cottonwoods, aspens, sycamores & alders for nesting & foraging. Also nests in montane shrubbery in open conifer forests.	No potential to occur on site due to a lack of suitable habitat on any of the individual sites.
Mammals			
American badger <i>Taxidea taxus</i>	Federal: None State: None CDFW: CSC CNDDDB: S3	Occurs in drier shrub, forest, and herbaceous habitats. Needs open, uncultivated ground and friable soils for digging burrows. Preys on burrowing rodents.	No potential to occur on site due to a lack of suitable habitat on any of the individual sites.
Big free-tailed bat <i>Nyctinomops macrotis</i>	Federal: None State: None CDFW: CSC CNDDDB: S3	Occurs in low-lying arid areas in Southern California. Roosts in high cliffs or rocky outcrops.	No potential occur on site due to lack of suitable habitat.
Hoary bat <i>Lasiurus cinereus</i>	Federal: None State: None CDFW: None CNDDDB: S4	Prefers open habitats or habitat mosaics, with access to trees for cover & open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths. Requires water.	No potential occur on site due to lack of suitable habitat.
Pacific pocketmouse <i>Perognathus longimembris pacificus</i>	Federal: FE State: None CDFW: CSC CNDDDB: S1	Seems to prefer soils of fine alluvial sands near the ocean.	No potential to occur on site due to a lack of suitable habitat on any of the individual sites.
San Diego desert woodrat <i>Neotoma lepida intermedia</i>	Federal: None State: None CDFW: CSC CNDDDB: S3S4	Occurs in a variety of shrub and desert habitats, primarily associated with rock outcrops, boulders, cacti, or areas of dense undergrowth.	No potential to occur on site due to a lack of suitable habitat on any of the individual sites.
Silver-haired bat <i>Lasiorycteris noctivagans</i>	Federal: None State: None CNDDDB: S3S4	Temperate, northern hardwoods with ponds or streams nearby. Roost in hollow snags and bird nests.	No potential to occur on site due to a lack of suitable habitat on any of the individual sites.
South coast marsh vole <i>Microtus californicus stephensi</i>	Federal: None State: None CDFW: CSC CNDDDB: S1S2	Tidal marshes in Los Angeles, Orange and southern Ventura Counties.	Potential to occur in Steamshovel Slough, other tidal areas on Synergy Oil Field, City Property, and Pumpkin Patch sites.
Southern California salt marsh shrew <i>Sorex ornatus salicornicus</i>	Federal: None State: None CDFW: CSC CNDDDB: S1	Coastal marshes in Los Angeles, Orange and southern Ventura Counties. Requires dense vegetation and woody debris for cover.	Potential to occur in Steamshovel Slough, other tidal areas on Synergy Oil Field, City Property, and Pumpkin Patch sites.
Western mastiff bat <i>Eumops perotis californicus</i>	Federal: None State: None CDFW: CSC CNDDDB: S3S4	Many open, semi-arid to arid habitats, including conifer & deciduous woodlands, coastal scrub, grasslands, chaparral, etc. Roosts in crevices in cliff faces, high buildings, trees, & tunnels.	No potential occur on site due to lack of suitable habitat.

Table 3.3-8 Special-Status Wildlife

Species Name	Status	Habitat Requirements	Potential for Occurrence
SOURCE: Glenn Lukos Associates, Inc. 2017a; CNDDDB, 2017b.			
STATUS CODES:			
<u>Federal</u>		<u>State</u>	<u>CDFW</u>
FE = Federally Endangered		SE = State Endangered	CSC = California Species of Special Concern
FT = Federally Threatened		ST = State Threatened	CFP = California Fully Protected Species
FSC = Federal Species of Special Concern			WL = Watch List
<u>CNDDDB Element Ranking</u>			
S1 = Critically Imperiled—Critically imperiled in the state because of extreme rarity (often 5 or few populations) or because of factor(s) such as very steep declines making it especially vulnerable to extirpation from the state.			
S2 = Imperiled—Imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the state.			
S3 = Vulnerable—Vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer).			
S4 = Apparently Secure—Uncommon but not rare in the state; some cause for long-term concern due to declines or other factors.			
A question mark (?) denotes an inexact numeric rank due to insufficient samples over the full expected range of the type, but existing information points to this rank.			

Synergy Oil Field Site

The following special-status wildlife have been documented as occurring or having potential to occur within the Synergy Oil Field site.

American Peregrine Falcon (*Falco peregrinus anatum*)

The American peregrine falcon is a State endangered species, and was federally delisted in 1999. Northwestern populations are year-round residents from central Mexico to Alaska. American peregrine falcons forage in a variety of habitats including grasslands, meadows, coastlines and wetlands where they hunt waterfowl and shorebirds. Organochlorine pesticides were a primary cause for decline before they were banned in the 1970s, but habitat loss due to development and human disturbance is also responsible for this raptor’s decline. Habitat for prey occurs over much of the Synergy Oil Field site; however, the tidal saltmarsh areas associated with Steamshovel Slough exhibit the best foraging areas due to the highest concentrations of potential prey. No American peregrine falcons were observed on site during any surveys or site visits; however, individuals resident in the vicinity and/or migrants are expected to forage occasionally on site.

Belding’s Savannah Sparrow (*Passerculus sandwichensis belding*)

The Belding's savannah sparrow is a State endangered bird, and a candidate species for federal protection. This species is a non-migratory subspecies that occurs in coastal salt marshes between Goleta Slough, Santa Barbara County, and Bahia de San Quentin in Mexico. The Belding’s savannah sparrow is entirely dependent on salt marshes for nesting and foraging, and thus resides year-round in this habitat and is resident and common on the site, with the highest concentrations within and in proximity to Steamshovel Slough. Based on focused breeding season surveys conducted in 2017, the current capacity of the Steamshovel Slough area is estimated to be between 30 to 42 territories within Steamshovel Slough, and two territories south of the slough (GLA 2017e). This species nests preferentially in common pickleweed and/or Parish’s glasswort. This species was most commonly observed within Steamshovel Slough and along the berm that demarcates the southern limits of the Slough and is presumed to nest in these areas. In addition, this species was also observed foraging within areas of pickleweed and Parish’s glasswort south of the Slough.

Burrowing Owl (*Athene cunicularia*)

Habitat for the burrowing owl is varied, including short-grass prairies, grasslands, lowland scrub, agricultural lands (particularly rangelands), prairies, coastal dunes, desert floors, and some artificial, open areas as a year-long resident. Burrowing owls require large open expanses of sparsely vegetated areas on gently rolling or level terrain with an abundance of active small mammal burrows (e.g., ground squirrels, rabbits, etc.). As a primary habitat need, they require the use of rodent or other burrows for roosting and nesting cover. They may also dig their own burrow in soft, friable soil (as found in Florida) and may also use pipes, culverts, and nest boxes where burrows are scarce. The mammal burrows are modified and enlarged by the owls. In the case of nesting owls, one burrow is typically selected for use as the nest; however, satellite burrows are usually found within the immediate vicinity of the nest burrow within the defended territory of the owl. This species was not detected during focused surveys in 2015, 2016, or 2017.

California Least Tern (*Sterna antillarum browni*)

The California least tern is listed under CESA and FESA as endangered and is also a California fully protected species. In Southern California, it breeds at scattered sites along the coast from San Diego to San Luis Obispo counties. This species has been observed foraging within Steamshovel Slough; however, there are no potential breeding areas on the site.

Ridgway's Rail (*Rallus obsoletus*)

The Ridgway's rail (formerly designated as the light-footed clapper rail) is a federal endangered, State endangered, and California fully protected species. In Southern California, the Ridgway's rail is a year-round resident that prefers coastal salt marshes, but also inhabits freshwater marshes. Cordgrass (*Spartina* spp.) and bulrush (*Bolboshchoenus* spp. and *Schoenoplectus* spp.) are among the preferred species for nesting. Steamshovel Slough exhibits the highest potential for supporting this species; however, it has not been observed on the site.

Mudflat Tiger Beetle (*Cicindela trifasciata sigmoidea*)

The mudflat tiger beetle is considered locally rare, though it has no State or federal status. This predatory beetle inhabits salt marshes, mudflats and salt pannes where they make burrows in the intertidal zone. It has been documented as occurring on mudflats in Steamshovel Slough (Tidal Influence 2012).

Northern Harrier (Nesting) (*Circus cyaneus*)

The northern harrier is a California Species of Special Concern. This species range is across all of North America, wintering across most of the southern United States and into Mexico. The northern harrier is now one of the rarest nesting raptors in southwestern California. Characteristically, this hawk inhabits marshlands, both coastal salt and freshwater, but often forages over grasslands and fields, requiring open habitats for foraging. Northern harriers have occasionally been observed foraging on the site. There have been no records of nesting on the site; however, there are potentially suitable areas for nesting in some of the higher areas of Steamshovel Slough; nevertheless, impacts to this species are not expected to occur with the proposed project.

Pacific Green Sea Turtle (*Chelonia mydas*)

The Pacific green sea turtle is a federal endangered and listed on the International Union for the Conservation of Nature (IUCN) Red List as 4, which means "endangered." This species is generally found in fairly shallow

waters (except when migrating) inside reefs, bays, and inlets. The turtles are attracted to lagoons and shoals with an abundance of marine grass and algae. They have been documented immediately upstream of the Steamshovel Slough, within the Los Cerritos Channel (Tidal Influence 2012), and have the potential to occur at the mouth of the slough.

Short-Eared Owl (*Asio flammeus*)

The short-eared owl is a California Species of Special Concern. It prefers open habitats such as grasslands, prairie, agricultural fields, salt marshes, estuaries, and mountain meadows. Breeding habitat must have sufficient ground cover to conceal nests and nearby sources of small mammals for food. This species roosts in disturbed areas such as thick hedgerows, overgrown rubble and abandoned fields. The Steamshovel Slough may provide potentially suitable wintering habitat, however, this species was not observed on site during surveys.

South Coast Marsh Vole (*Microtus californicus stephensi*)

The south coast marsh vole is a California Species of Special Concern, and ranges from southwestern Oregon through much of California. This species prefers grassy meadow habitats and feeds on grasses and other green vegetation when available; piles of cuttings are found along its runways. It breeds from September to December. In winter, it eats mostly roots and other underground parts of plants. Major threats are non-native plants that have replaced the plants it needs to survive and introduced non-native animals such as the common house mouse and other non-natives that have displaced it through competition. This species was not observed on site during any general biological surveys; however, the salt marsh areas in Steamshovel Slough, the City Property site, and northeast portion of the Pumpkin Patch site may provide suitable habitat.

Southern California Salt Marsh Shrew (*Sorex ornatus salicornicus*)

The Southern California salt marsh shrew is a California Species of Special Concern that is endemic to Southern California's coastal marshes in from Point Mugu, Ventura County to salt marshes around Anaheim Bay and Newport Beach in Orange County. This species appears to prefer coastal marshes. Based on studies of other similar shrews, the Southern California salt marsh shrew likely requires fairly dense ground cover, nesting sites above mean high tide free from inundation, and fairly moist surroundings. Major threats are loss of habitat due to development along the coast, and lack of refuge sites above the marshes to escape from flooding during seasonal high tides and periodic storms. This species was not observed on site during any general biological surveys; however, the salt marsh areas in Steamshovel Slough, the City Property site, and northeast portion of the Pumpkin Patch site may provide suitable habitat.

Salt Marsh Wandering Skipper (*Panoquina errans*)

The wandering skipper is a small light brown butterfly that is listed on the IUCN Red List as 2.3, which means "near threatened". The flight season extends from March to November and peaks during the summer. The wandering Skipper's known range extends along the California coast from the cape region of Baja California to Santa Barbara County, but only in suitable localities within this range, which include areas with saltgrass, which is the larval host plant most commonly in areas with tidal influence. Suitable habitat for this species occurs within Steamshovel Slough as well as areas to the south of the slough that exhibit tidal influence and support patches of saltgrass. Focused surveys were not performed; however, it is expected to occur throughout portions of the site.

Western Snowy Plover (*Charadrius alexandrinus nivosus*)

The western snowy plover is listed as federally endangered and is a California Species of Special Concern that nests on coastal beaches from southern Washington to southern Baja California, Mexico. The breeding season extends from March through September. Nests occur in flat, open areas with sandy substrates without much vegetation. The western snowy plover forages on invertebrates along the shore and along the edges of salt marshes. Habitats used by this species include sandy coastal beaches, salt pans, coastal dredged spoils sites, dry salt ponds, salt pond levees, gravel bars, salt marshes, and lagoons. Major threats are loss of suitable nesting habitat and, where habitat remains, disturbance from human activity near nesting sites, including general maintenance practices necessary to maintain beaches and recreational activity. The western snowy plover has not been observed foraging, and the site contains no suitable breeding areas.

White-Tailed Kite (*Elanus leucurus*)

The white-tailed kite is a state fully-protected species that occurs through much of California. In California, the white-tailed kite is a year-round resident in coastal and valley lowlands. It prefers open habitats including grasslands, open shrub, agricultural areas, wetlands dominated by grasses, fence rows and irrigation ditches adjacent to grazed lands, riparian, oak woodlands, coastal sage scrub, and salt marsh. White-tailed kites were observed foraging on the site; however, there is little suitable habitat for nesting and it is not expected to nest on the site.

City Property Site

The City Property site exhibits potential for supporting six special-status species: Burrowing owl, Belding's savannah sparrow, south coast marsh vole, Southern California saltmarsh shrew, and wandering skipper. The site also exhibits limited potential as foraging area for the American peregrine falcon, northern harrier, and white-tailed kite. The burrowing owl was not detected during focused surveys in 2016/2017.

Pumpkin Patch Site

The northeast portion of the Pumpkin Patch site exhibits potential for supporting five special-status species: the burrowing owl, south coast marsh vole, Southern California saltmarsh shrew, wandering skipper, and San Diego fairy shrimp. The burrowing owl was not detected during focused surveys in 2015, 2016, or 2017. Only the common versatile fairy shrimp (*Branchinecta lindahli*) was detected during the focused surveys in 2011–2013 and 2016/2017; the San Diego fairy shrimp has never been detected on the site during any of the focused surveys. The south coast marsh vole, Southern California saltmarsh shrew, and wandering skipper have not been observed on site during any general biological surveys; however, the salt marsh areas in the northeast of the site may provide suitable habitat.

LCWA Site

The LCWA site exhibits potential for two special-status species: the burrowing owl and white-tailed kite. White-tailed kites have not been observed nesting; nevertheless, the trees on the site exhibit limited potential as nest sites. The burrowing owl was not detected during focused surveys in 2015, 2016, or 2017.

3.3.2.4 Common Wildlife

Birds

The project site supports a wide range of avifauna, both residents and migrants. The Synergy Oil Field site supports the highest diversity of wintering water fowl and shore birds along with a variety of special-status species, which are further addressed below, including American peregrine falcon (*Falco peregrinus anatum*), Belding's savannah sparrow (*Passerculus sandwichensis beldingi*), California brown pelican (*Pelecanus occidentalis*), California least tern (*Sterna antillarum browni*), foraging/wintering northern harrier (*Circus cyaneus*), osprey (*Pandion haliaetus*), western snowy plover (*Charadrius alexandrinus nivosus*), and white-tailed kite (*Elanus leucurus*). Steamshovel Slough supports a high diversity of wintering avifauna including shore birds such as spotted sandpiper (*Actitis macularia*), western sandpiper (*Calidris mauri*), least sandpiper (*Calidris minutilla*), semipalmated plover (*Charadrius semipalmatus*), long-billed dowitcher (*Limnodromus scolopaceus*), marbled godwit (*Limosa fedosa*), greater yellowlegs (*Tringa semipalmatus*), long-billed curlew (*Numenius americanus*), whimbrel (*Numenius phaeopus*), and Willet, (*Tringa semipalmatus*); waterfowl including brant (*Branta bernicla*), Bufflehead (*Bucephala albeola*), northern pintail (*Anas acuta*), American widgeon (*Anas americana*), northern shoveler (*Anas clypeata*), green-winged teal (*Anas crecca*), cinnamon teal (*Anas cyanoptera*), blue-winged teal (*Anas discors*), mallard (*Anas platyrhynchos*), gadwall (*Anas strepera*), greater scaup (*Aythya marila*), American coot (*Fulica americana*), red-breasted merganser (*Mergus serrator*), and ruddy duck (*Oxyura jamaicensis*); grebes including Clark's grebe (*Aechmorphus clarkii*), western grebe (*Aechmorphus occidentalis*), horned grebe (*Podiceps auritus*), eared grebe (*Podiceps nigricollis*), and pied billed grebe (*Podilymbus podiceps*); herons and egrets including great egret (*Ardea alba*), great blue heron (*Ardea herodias*), American bittern (*Botaurus lentiginosus*), reddish egret (*Egretta refescens*), snowy egret (*Egretta thula*), and black-crowned night-heron (*Nycticorax nycticorax*); terns and gulls including Caspian tern (*Hydroprogne caspia*), California gull (*Larus californicus*), ring-billed gull (*Larus delawarensis*), Heermann's gull (*Larus heermanni*), western gull (*Larus occidentalis*), Bonaparte's gull (*Larus philadelphia*), black skimmer (*Rynchops niger*), and elegant tern (*Thalasseus elegans*).

Mammals

Mammals detected on the project site either by direct observation or by physical evidence include coyote (*Canis latrans*), California ground squirrel (*Spermophilus beechyi*), Audubon's cottontail (*Sylvilagus audubonii*), brush rabbit (*Sylvilagus bachmani*), Botta's pocket gopher (*Thomomys bottae*), raccoon (*Procyon lotor*), and domestic dog (*Canis lupus familiaris*). The Synergy Oil Field site has potential to support two special-status small mammals, which are addressed below: South coast marsh vole (*Microtus californicus stephensi*) and Southern California salt marsh shrew (*Sorex ornatus salicornicus*). Additionally, the mouth of Steam Shovel slough has potential to support two marine mammals: harbor seal (*Phoca citulina*) and California sea lion (*Zalophus californianus*).

Reptiles and Amphibians

Herpetofauna observed include western fence lizard (*Sceloporus occidentalis*), side-blotched lizard (*Uta stansburiana*), Pacific green sea turtle (*Chelonia midas*), southern alligator lizard (*Gerrhonotus multicarinatus*), gopher snake (*Pituophis melanoleucus*), and Baja California treefrog (*Pseudacris hypochondriaca*).

Marine Fish

Marine fish observed include topsmelt (*Atherinops affinis*), arrow goby (*Clevelandia ios*), California killifish (*Fundulus parvipinnis*), staghorn sculpin (*Leptocottus armatus*), bay pipe fish (*Synganthus griseolineatus*), and round sting ray (*Urobatis haleri*).

3.3.2.5 Sensitive Natural Communities

Sensitive natural communities are of limited distribution statewide or within a county or region. These communities may or may not contain special-status species or their habitat. For purposes of this EIR, sensitive natural communities include vegetation communities identified in the List of Natural Communities with Holland Types (CDFG 2010) with a CNDDDB state rank of S1, S2, or S3.

Synergy Oil Field Site

The following sensitive natural communities occur on the Synergy Oil Field site, and their descriptions are provided in Section 3.3.2.2, Vegetation Communities:

- *Spartina foliosa* Herbaceous Alliance (California cordgrass marsh) (S3.2);
- *Arthrocnemum subterminale* Herbaceous Alliance (Parish's glasswort patches) (S2);
- *Frankenia salina* Herbaceous Alliance (alkali heath marsh) (S3);
- *Salicornia pacifica* Herbaceous Alliance (pickleweed mats) (S3);
- *Baccharis emoryi* Provisional Shrubland Alliance (Emory's baccharis thickets) (S2?); and
- *Salix gooddingii* Woodland Alliance (black willow thicket) (S3).

City Property Site

The following special-status habitats occur on the City Property site, and their descriptions are provided in Vegetation Communities above:

- Southern coastal brackish marsh (S2);
- *Salicornia pacifica* Herbaceous Alliance (pickleweed mats) (S3); and
- Alkali meadow (S2).

Pumpkin Patch Site

The following special-status habitat occurs in the northern portion of the Pumpkin Patch site, and the description is provided in Vegetation Communities above:

- *Salicornia pacifica* Herbaceous Alliance (pickleweed mats) (S3).

LCWA Site

No special-status habitats occur on the LCWA site.

3.3.2.6 Potential Environmentally Sensitive Habitat Areas

The project has the potential to impact areas that could potentially meet the definition for ESHA as defined under the CCA. The CCA protects important coastal biological resources including wetlands, riparian habitats,

and other areas defined as ESHA by the CCC in accordance with the CCA. The CCA Section 30107.5 defines an ESHA as

... any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.

For purposes of this EIR, criteria used to determine extent of potential ESHA are as follows:

- The habitat consists of predominantly native vegetation that supports or is likely to support State- or federally listed threatened or endangered animal species, California Fully Protected species, or other special-status animal species (e.g., listed by CDFW as Species of Special Concern or have a CNDDDB state rank of S1, S2, or S3);
- The habitat consists of predominantly native vegetation that supports or is likely to support State- or federally listed threatened or endangered plant species or species designated as 1B or 2B by the CRPR; or
- The native vegetation alliance has a rarity ranking of S1, S2, or S3 by the CNDDDB.

The proposed project would result in impacts to special-status species and habitats that could be considered potential ESHA, which could be inconsistent with CCA policies. These potential impacts are addressed under Impact BIO-6 (Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance). Final determinations regarding ESHA will be made by the CCC.

Based on the criteria identified above, the following federally or State-listed wildlife species and associated habitats are potential ESHA, and have been identified on or near one or more of the individual sites.

- Western snowy plover (Federal: Threatened; Species of Special Concern);
- American peregrine falcon (California Fully Protected);
- White-tailed kite (California Fully Protected);
- Belding's savannah sparrow (State: Endangered);
- California least tern (Federal and State: Endangered; California Fully Protected); and
- Pacific green sea turtle (Federal: Threatened).

The following special-status plants with a CRPR of 1B or 2B have been identified on one or more of the individual sites, and considered potential ESHA:

- Estuary seablite; and
- Southern tarplant.

The following habitat types have been identified as potential ESHA on one or more of the individual sites:

- *Arthrocnemum subterminale* Herbaceous Alliance (Parish's Glasswort Patches) (S2);
- *Frankenia salina* Herbaceous Alliance (Alkali heath flats) (S3);
- *Salicornia pacifica* Herbaceous Alliance (Pickleweed Mats) (S3);
- *Spartina foliosa* Herbaceous Alliance (California cordgrass marsh) (S3.2);
- Southern coastal brackish marsh (S2);
- Southern coastal salt marsh (S2);

- Alkali meadow (S2);
- Tidal channels;
- Mudflats;
- Saltgrass flats;
- Shoregrass flats; and
- Unvegetated flats.

3.3.2.7 Critical Habitat/Essential Fish Habitat

The USFWS has not designated critical habitat on the project site for any species listed as threatened or endangered. Essential Fish Habitat (EFH), which is regulated by the National Oceanic and Atmospheric Administration's (NOAA) National Marine Fisheries Service (NMFS) and includes bay, estuarine, and eelgrass habitats (Habitats of Particular Concern [HAPC]) have been identified near the mouth of Steamshovel Slough on the Synergy Oil Field site (Tidal Influence 2012). Eelgrass, which is a food source for the federal threatened Pacific green sea turtle, is considered a HAPC for this species. The Steamshovel Slough is a brackish marsh that does not have connectivity to other open waters or marshes (including Zedler Marsh) that would provide movement corridors for fish, marine mammals, or reptiles (e.g., green sea turtle).

3.3.2.8 Jurisdictional Resources

The Synergy Oil Field, City Property, and Pumpkin Patch sites each contain aquatic resources that potentially meet the definition of waters of the United States (waters of the U.S.), including wetland areas pursuant to Clean Water Act (CWA) Section 404 and wetlands defined under the CCA. All wetland waters of the U.S. and non-wetland waters of the U.S. associated with the individual sites are also considered waters of the State, and impacts would require a Water Quality Certification from the RWQCB pursuant to CWA Section 401. There are no "isolated" or "non-federal" waters that would be subject to waste discharge requirements under the Porter Cologne Water Quality Control Act (GLA 2017b). The Synergy Oil Field site also includes areas subject to Rivers and Harbors Act Section 10, and the Synergy Oil Field and City Property sites include "streams" potentially subject to CDFW jurisdiction pursuant to California Fish and Game Code Section 1602. The LCWA site does not support aquatic resources subject to Section 404, Section 1602, or that meet the CCA definition of wetlands.

A summary of the findings of the Jurisdictional Delineation for the Los Cerritos Wetlands Oil Consolidation and Restoration Project (GLA 2017b) is provided below for each of the individual sites, and the full report can be found in Appendix C1.

Synergy Oil Field Site

The Synergy Oil Field site contains aquatic resources that potentially include wetlands and non-wetlands waters of the U.S./State, areas subject to CWA Sections 404 and 401, areas subject to Rivers and Harbors Act Section 10, streambeds subject to CDFW jurisdiction pursuant to Fish and Game Code Section 1602, and wetlands as defined by the CCA.

Waters of the U.S./State

Areas potentially subject to USACE and RWQCB jurisdiction (waters of the U.S./State) pursuant to CWA Sections 404 and 401 total 40.36 acres, of which 35.40 acres consist of jurisdictional wetlands. The northern area includes 37.38 acres of waters of the U.S./State, of which 33.83 acres are wetlands, and the southern area includes 2.98 acres of waters of the U.S./State, of which 1.57 acres are wetlands. The majority of USACE and RWQCB jurisdiction is located in the Steamshovel Slough in the northern portion of the site, beyond the oil field operations. **Figure 3.3-3, Synergy Oil Field Site—Waters of the U.S./State**, depicts the extent of wetlands and waters of the U.S./State on the Synergy Oil Field site. **Table 3.3-9, Potential Waters of the U.S./State on Synergy Oil Field Site (acres)**, provides a summary of waters of the U.S./State and separates the jurisdictional areas according to Phases 1 and 2 of the proposed project.

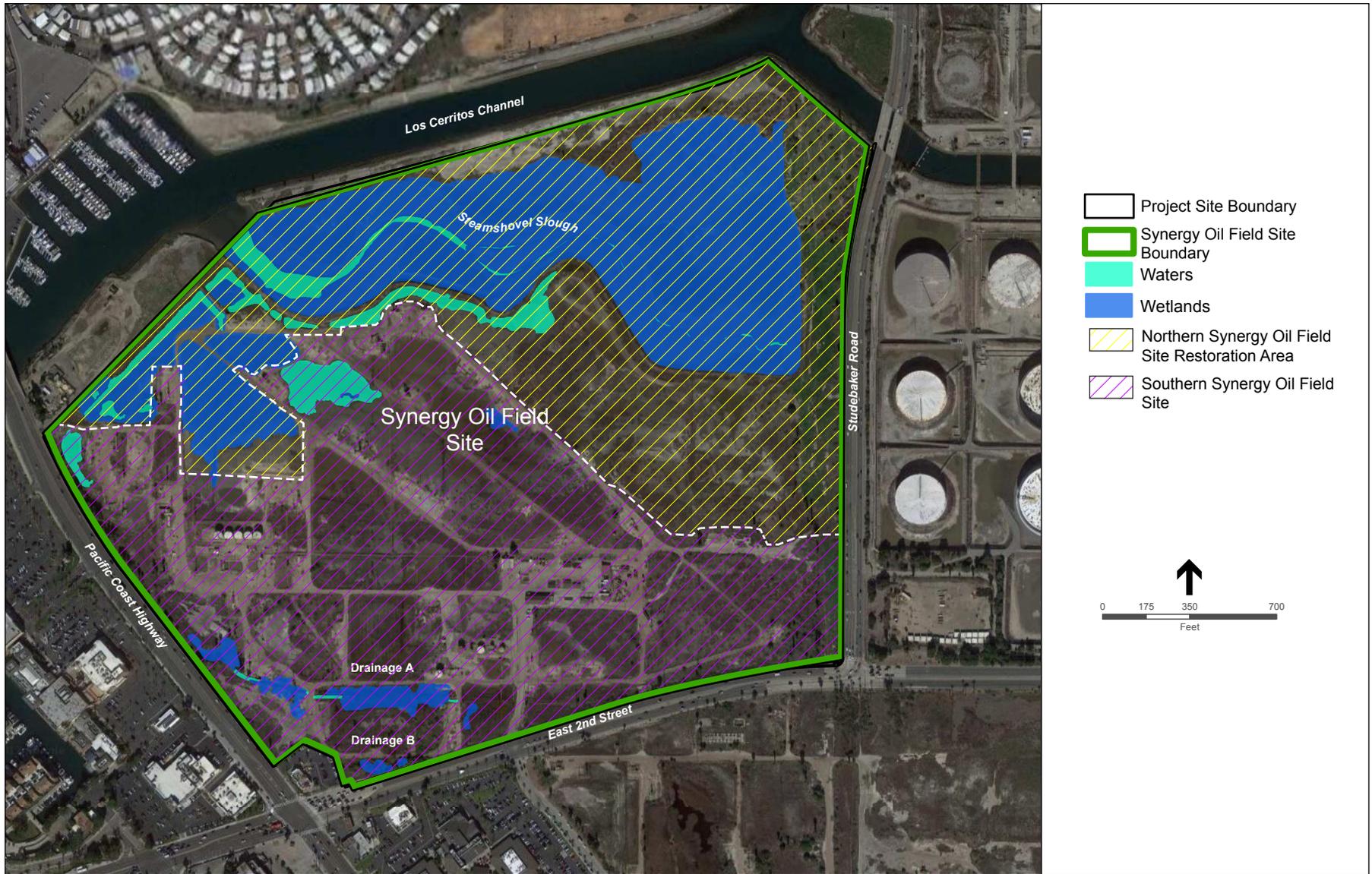
Table 3.3-9 Potential Waters of the U.S./State on Synergy Oil Field Site (acres)

Vegetation Alliance	Northern Area	Southern Area	Total
Non-Wetland Waters of the U.S./State			
Tidal Channels	3.18	0.0	3.18
Unvegetated Ephemeral Channel	0.0	0.03	0.03
Mud Flats	0.37	1.38	1.75
<i>Subtotal Non-Wetland Waters of the U.S.</i>	<u>3.55</u>	<u>1.41</u>	<u>4.96</u>
Wetland Waters of the U.S./State			
Alkali Weed—Saltgrass Flats	0.0	0.25	0.25
Saltgrass Flats	0.0	0.32	0.32
Pickleweed Mats	32.45	0.89	33.34
California Cordgrass Marsh	1.38	0.0	1.38
Cattail Marsh	0.0	0.11	0.11
<i>Subtotal Wetland Waters of the U.S./State</i>	<u>33.83</u>	<u>1.57</u>	<u>35.40</u>
Total Waters of the U.S./State	<u>37.38</u>	<u>2.98</u>	<u>40.36</u>

SOURCE: Glenn Lukos Associates, Inc. 2017a.

USACE Section 10 Waters

The Synergy Oil Field site contains 55.53 acres that are subject to USACE jurisdiction pursuant to Rivers and Harbors Act Section 10. The limits of Section 10 Waters are determined solely through the use of elevational data. Specifically, all areas falling below the elevation for mean high water (MHW), which is recorded at 2.12 feet National Geodetic Vertical Datum (NGVD) at this site, meet the USACE definition for “Navigable Waters” pursuant to Rivers and Harbors Act Section 10. The berm and road impediments on the southern side of the Steamshovel Slough prevent many of the areas within the central and eastern portions of the site from actually receiving any tidal exchange; nevertheless, these areas are mapped as Section 10 Waters based on elevation alone. No Section 10 Waters are located within the 0.82-acre City right-of-way adjacent to the Pumpkin Patch site.



SOURCE: Glenn Lukos Associates

Long Beach Cerritos Wetland . 150712

Figure 3.3-3
Synergy Oil Field Site – Waters of the U.S./State

CDFW Section 1602 Jurisdiction

Areas potentially subject to CDFW jurisdiction associated with the Synergy Oil Field site are limited to tidal channels and associated herbaceous riparian/wetland habitat,³² and two drainage courses. Potential CDFW jurisdiction totals 17.12 acres and is located entirely within the Synergy Oil Field site. **Table 3.3-10, Potential California Department of Fish and Wildlife (CDFW) Section 1602 Jurisdiction on Synergy Oil Field Site (acres)**, provides a summary of CDFW jurisdiction pursuant to Fish and Game Code Section 1602, and the extent of CDFW jurisdiction is shown in **Figure 3.3-4, Synergy Oil Field Site—California Department of Fish and Wildlife (CDFW) Jurisdiction**.

Table 3.3-10 Potential California Department of Fish and Wildlife (CDFW) Section 1602 Jurisdiction on Synergy Oil Field Site (acres)

Drainage Features	Northern Area	Southern Area	Total
California cordgrass marsh	1.38	0.0	1.38
Pickleweed Mats	12.27	0.0	12.27
Tidal Channels	3.18	0.0	3.18
Drainage A	0.0	0.11	0.11
Drainage B	0.0	0.18	0.18
Total	16.83	0.29	17.12

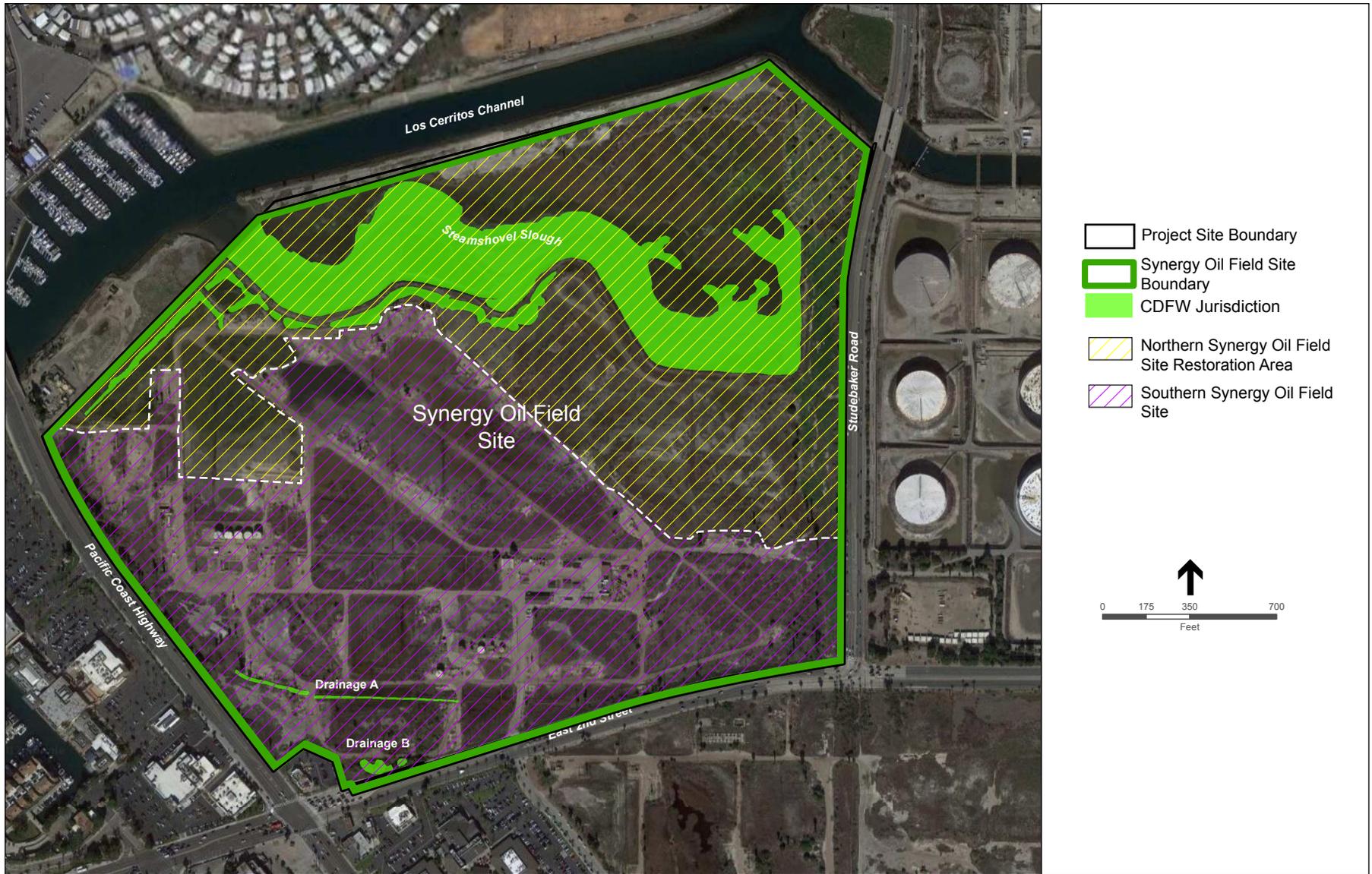
SOURCE: Glenn Lukos Associates, Inc., 2017a.

Wetlands Defined in Accordance with the CCA

Under the CCA, the presence of a single criteria/parameter (i.e., wetland vegetation or hydric soils or wetland hydrology) is sufficient to make a presumptive finding for the presence of wetlands. As such, wetlands defined under the CCA are more extensive in the non-tidal areas of the site as compared to USACE wetlands. Potential wetlands defined under the CCA on the Synergy Oil Field site total 100.48 acres, as summarized in **Table 3.3-11, California Coastal Commission (CCC)—Potential Wetlands Defined under the California Coastal Act (CCA) on Synergy Oil Field Site (acres)**, and depicted in **Figure 3.3-5, Synergy Oil Field Site—California Coastal Commission (CCC) Wetlands**. There are no potential wetlands defined under the CCA located within the 0.82-acre City right-of-way adjacent to the Synergy Oil Field site.

For this EIR, mud flats are also included as such areas are covered by tidal water on a regular basis and are considered wetlands under the CCA definition.

³² The black willow thickets are not included within Section 1602 jurisdiction because they are not associated with a stream (i.e., drainages on site).



SOURCE: Glenn Lukos Associates

Long Beach Cerritos Wetland . 150712

Figure 3.3-4

Synergy Oil Field Site—California Department of Fish and Wildlife (CDFW) Jurisdiction

Table 3.3-11 California Coastal Commission (CCC)—Potential Wetlands Defined under the California Coastal Act (CCA) on Synergy Oil Field Site (acres)

Vegetation Alliance	Northern Area	Southern Area	Total
Parish’s Glasswort Patches	9.20	2.77	11.97
Alkali Weed—Saltgrass flats	0.0	0.54	0.54
Shore Grass Flats	0.30	0.22	0.52
Saltgrass Flats	1.61	10.48	12.09
Alkali Heath Flats	0.13	0.74	0.87
Mud Flats	0.37	1.38	1.75
Black Willow	0.0	0.14	0.14
Pickleweed Mats	37.87	14.26	52.13
California Cordgrass Marsh	1.38	0.0	1.38
Tidal Channels	3.18	0.0	3.18
Cattail Marsh	0.0	0.11	0.11
Unvegetated Flats	6.04	9.76	15.8
Total	60.08	40.40	100.48

SOURCE: Glenn Lukos Associates, Inc., 2017a.

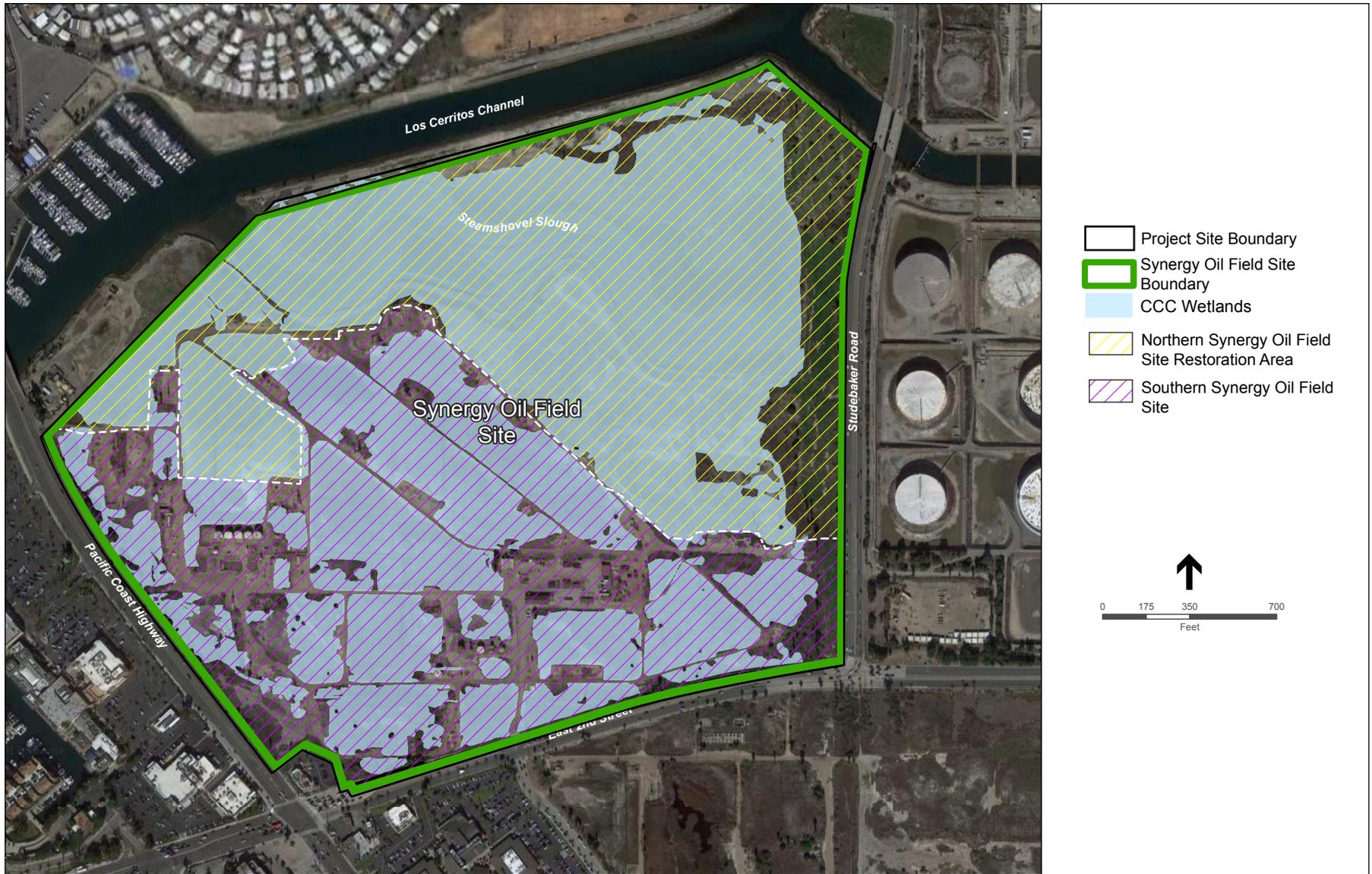
City Property Site

Geographic Information Systems (GIS) data of the jurisdictional delineation for the City Property site was provided by the City of Long Beach on March 24, 2016. The GIS files do not distinguish between three criteria wetlands as defined by the USACE or wetlands defined by the CCA. As such, this EIR assumes that the City-mapped wetlands are subject to USACE and RWQCB jurisdiction pursuant to CWA Sections 404 and 401 and wetlands as defined under the CCA. It is also assumed that the area of southern coastal brackish marsh within the central portion of the site may be considered a vegetated pond and, therefore, under the jurisdiction of the CDFW. **Table 3.3-12, Jurisdictional Areas within the City Property Site**, describes the potential jurisdiction on the City Property site, and is depicted in **Figure 3.3-6, City Property Site—Jurisdictional Delineation Map**. **Table 3.3-13, Jurisdictional Areas within the City’s Right-of-Way Adjacent to the City Property Site**, describes potential jurisdiction within the City’s right-of-way located adjacent to the Pumpkin Patch site.

Table 3.3-12 Jurisdictional Areas within the City Property Site

Wetland Habitat	USACE/RWQCB		Channel	CDFW	CCA
	Wetland Waters of the U.S./State	Non-Wetland Waters of the U.S./State		Riparian (vegetated pond)	Wetland
Alkali Meadow	7.37	0.0	0.0	0.0	7.37
Mulefat Scrub	1.54	0.0	0.0	0.0	1.54
Ruderal Wetlands	2.42	0.0	0.0	0.0	2.42
Salt Flat	0.64	0.0	0.0	0.0	0.64
Southern Coastal Brackish Marsh	6.58	0.0	0.0	5.07	6.58
Southern Coastal Salt Marsh	2.21	0.0	0.0	0.0	2.21
Southern Willow Scrub	0.28	0.0	0.0	0.0	0.28
Total	21.04	0.0	0.0	5.07	21.04

SOURCE: Glenn Lukos Associates, Inc., 2017a.

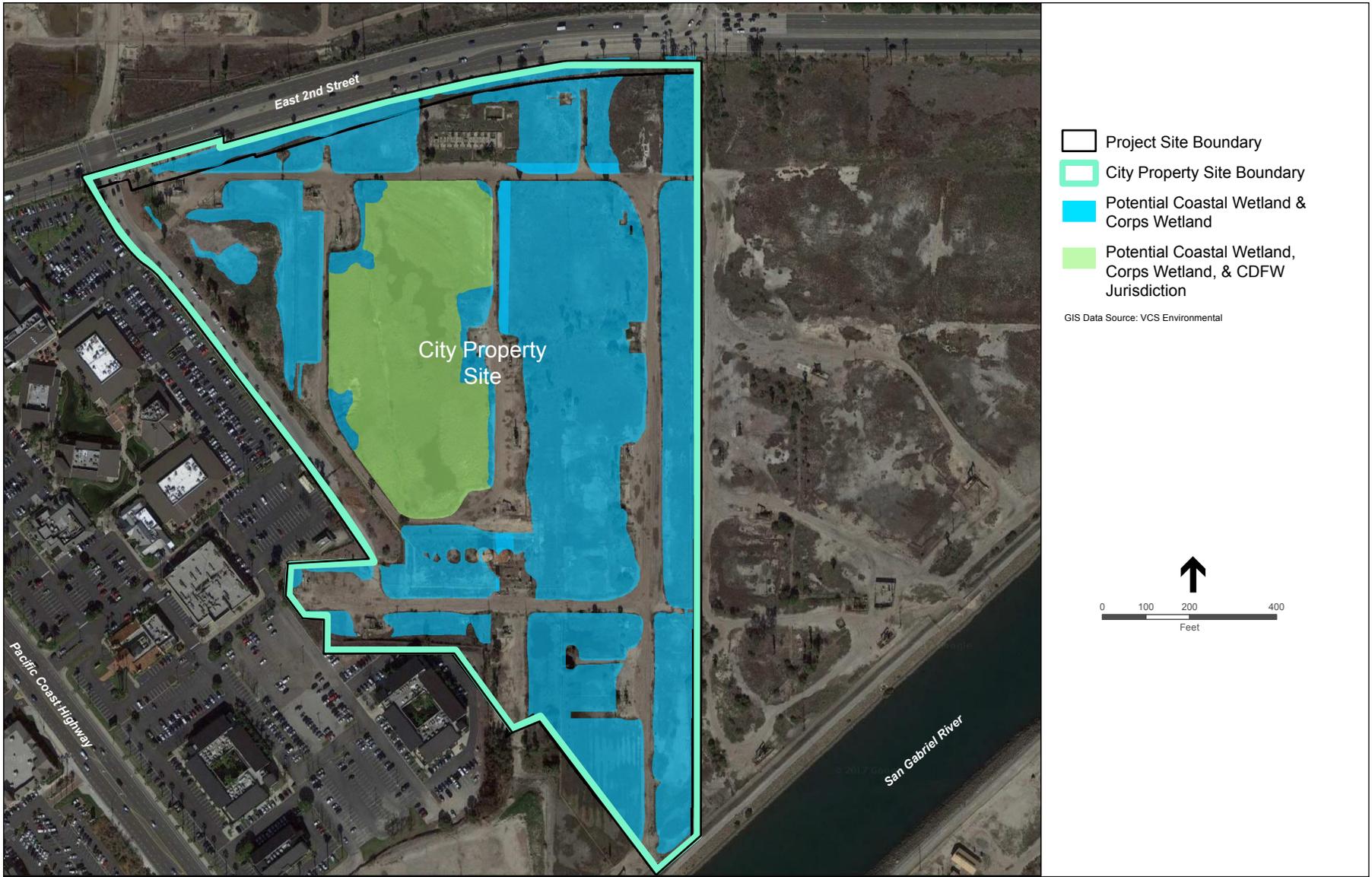


SOURCE: Glenn Lukos Associates

Long Beach Cerritos Wetland . 150712

Figure 3.3-5

Synergy Oil Field Site—California Coastal Commission (CCC) Wetlands



SOURCE: Glenn Lukos Associates

Long Beach Cerritos Wetland . 150712

Figure 3.3-6
City Property Site – Jurisdictional Delineation Map

Table 3.3-13 Jurisdictional Areas within the City’s Right-of-Way Adjacent to the City Property Site

Wetland Habitat	USACE/RWQCB		CDFW		CCA
	Wetland Waters of the U.S./State	Non-Wetland Waters of the U.S./State	Channel	Riparian (vegetated pond)	Wetland
Mulefat Scrub	0.03	0.0	0.0	0.0	0.03
Ruderal Wetlands	0.39	0.0	0.0	0.0	0.39
Southern Coastal Brackish Marsh	0.47	0.0	0.0	0.0	0.47
Total	0.89	0.0	0.0	0.0	0.89

SOURCE: Glenn Lukos Associates, Inc., 2017a.

There are no areas on the site that are subject to USACE jurisdiction pursuant to Rivers and Harbors Act Section 10, as the site is permanently cut off from any potential tidal influence and “navigability” as defined by the USACE.

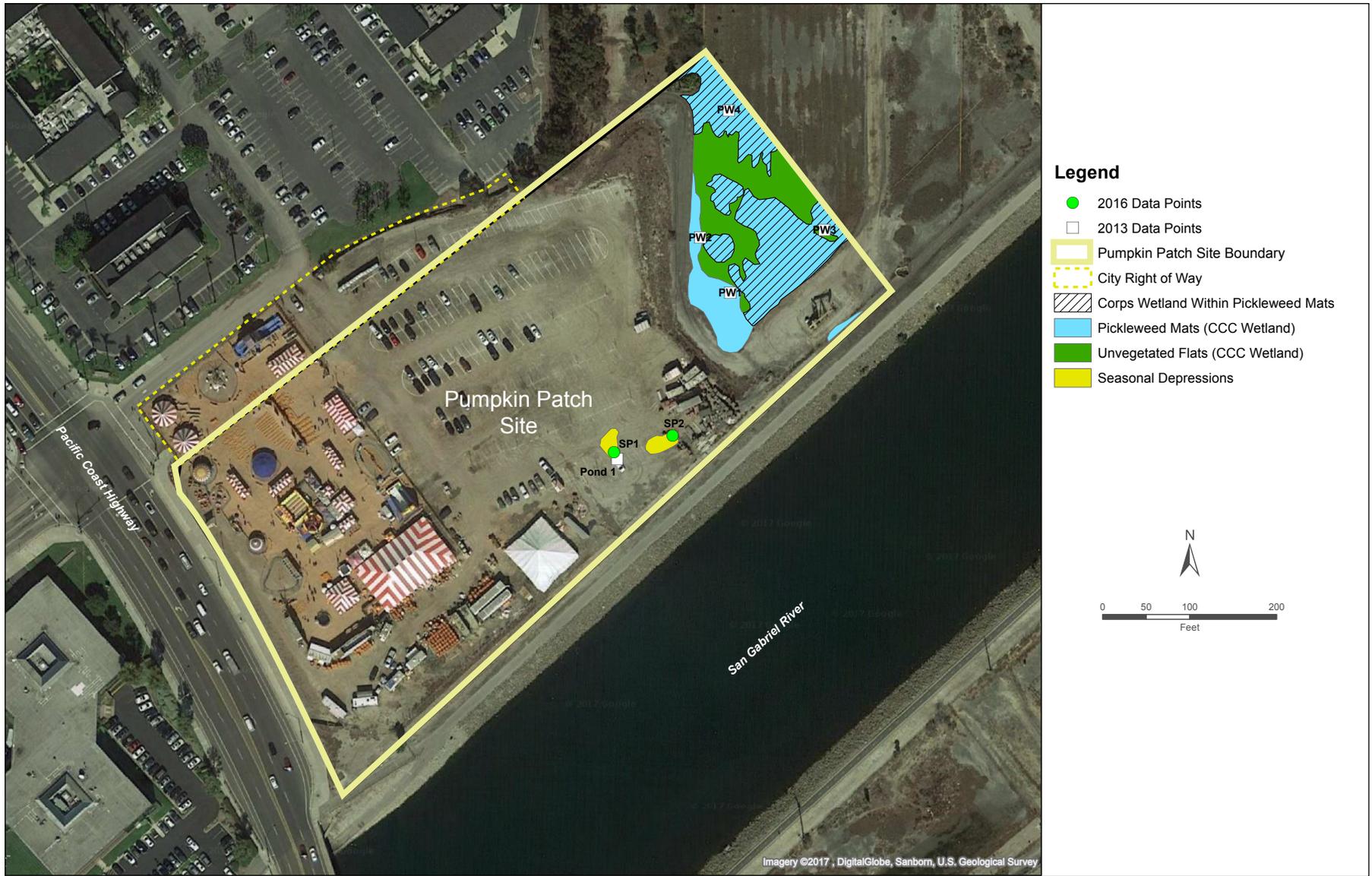
Based on the data of the jurisdictional delineation provided by the City, 21.04 acres of potential wetland waters of the U.S./State, 5.07 acres of vegetated CDFW jurisdiction, and 21.04 acres of wetlands as defined by the CCA occur on site. Within the off-site area of the City’s right-of-way off of 2nd Street, 0.89 acre of potential wetland waters of the U.S./State and 0.89 acre of wetlands defined by the CCA occur. The southern coastal brackish marsh within the City’s right-of-way is not associated with the marsh in the central portion of the site and, therefore, is not considered CDFW jurisdiction. No areas potentially subject to USACE and RWQCB jurisdiction are located within the 0.82-acre City right-of-way that is adjacent to the Pumpkin Patch site.

Pumpkin Patch Site

The Pumpkin Patch site contains aquatic resources that potentially include wetland and non-wetland waters of the U.S./State and wetlands as defined by the CCA, as shown in **Figure 3.3-7, Pumpkin Patch Site—Jurisdictional Delineation Map**. The Pumpkin Patch site contains no areas that meet CDFW’s definition of a lake or streambed. As such, there are no areas on the site that are subject to CDFW jurisdiction pursuant to California Fish and Game Code. No areas potentially subject to USACE, RWQCB, or CDFW jurisdiction, or wetlands as defined by the CCA, are located within the 0.82-acre City right-of-way that is adjacent to the Pumpkin Patch site Section 1602.

Waters of the U.S./State

As indicated below in **Table 3.3-14, Waters of the U.S./State and Coastal Wetlands within the Pumpkin Patch Site**, areas potentially subject to USACE and RWQCB jurisdiction (waters of the U.S./State) pursuant to CWA Sections 404 and 401 total 0.42 acre (see. These wetlands occur entirely within the lower back (northeastern) portion of the site.



SOURCE: Glenn Lukos Associates

Long Beach Cerritos Wetland . 150712

Figure 3.3-7
Pumpkin Patch Site – Jurisdictional Delineation Map

Table 3.3-14 Waters of the U.S./State and Coastal Wetlands within the Pumpkin Patch Site

Feature	USACE/RWQCB		CCA
	Wetland Waters of the U.S./State	Non-Wetland Waters of the U.S./State	Wetland
Pickleweed Mats	0.42	0.0	0.55
Unvegetated Flats	0.0	0.0	0.26
Seasonal Depressions	0.0	0.0	0.03
Total	0.42	0.0	0.84

SOURCE: Glenn Lukos Associates, Inc., 2017a.

Wetlands Defined in Accordance with the CCA

As presented in Table 3.3-14, potential wetlands as defined by the CCA total 0.84 acre, of which 0.55 acre consists of pickleweed mats with an additional 0.26 acre of unvegetated flat wetland on the lower back (northeastern) portion of the site. The seasonal depressions located within the Pumpkin Patch site in the southern area do not meet any of the three criteria for wetland hydrology, hydric soils, or hydrophytic vegetation and are not considered a wetland under the CCA. However, based on data collected during the 2016/2017 wet-season fairy shrimp survey, which revealed persistent ponding and the presence of hydrophytic vegetation during this abnormally wet season, the depressions have the potential to be wetlands as defined by the CCA. Nonetheless, should wetlands be asserted under the CCA, the acreage of wetlands associated with the seasonal depressions totals 0.03 acre. Therefore, the total potential area that meets the CCA definition for wetlands based on site conditions is 0.84 acre.

LCWA Site

The LCWA site does not contain areas that support waters of the U.S./State or that meet the minimum thresholds for wetlands pursuant to Sections 404 and 401 of the CWA and CCA.

3.3.3 Regulatory Framework

3.3.3.1 Federal

Endangered Species Act (USC Title 16, Sections 1531 through 1543)

The purpose of FESA and subsequent amendments is to protect and recover imperiled species and the ecosystems upon which they depend. FESA is administered by the U.S. Fish and Wildlife Service (USFWS) and the Commerce Department’s NMFS. USFWS has primary responsibility for terrestrial and freshwater organisms, while the responsibilities of NMFS are mainly marine wildlife such as whales and anadromous fish such as salmon. Under FESA, species may be listed as either endangered or threatened. “Endangered” means a species is in danger of extinction throughout all or a significant portion of its range. “Threatened” means a species is likely to become endangered within the foreseeable future. Under provisions of FESA Section 9(a)(1)(B), it is unlawful to “take” any listed species. “Take” is defined in FESA Section 3(18): “... harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.”

FESA Section 7 stipulates that any federal action that may affect a species listed as threatened or endangered requires a formal consultation with USFWS/NMFS to ensure that the action is not likely to jeopardize the continued existence of the listed species or result in destruction or adverse modification of designated critical habitat. 16 United States Code (USC) 1536(a)(2).

FESA Section 10 provides the basis for non-federal entities to obtain take authorization. For those actions for which no federal nexus exists, non-federal entities that wish to conduct otherwise lawful activities that may incidentally result in the take of a listed species must first obtain a Section 10 permit from USFWS/NMFS. The non-federal entity is required to develop a Habitat Conservation Plan (HCP) as part of the permit application process. Upon development of an HCP, the USFWS/NMFS can issue incidental take permits for listed species where the HCP specifies at minimum, the following: (1) the level of impact that will result from the taking, (2) steps that will minimize and mitigate the impacts, (3) funding necessary to implement the plan, (4) alternative actions to the taking considered by the applicant and the reasons why such alternatives were not chosen, and (5) such other measures that the Secretary of the Interior may require as being necessary or appropriate for the plan.

In addition to the prohibitions on the take of listed species, USFWS/NMFS are also required to designate areas of "Critical Habitat" for species listed under FESA. FESA defines critical habitat as "the specific areas within the geographical area occupied by the species, at the time it is listed, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and specific areas outside the geographical area occupied by the species at the time it is listed that are determined by the Secretary to be essential for the conservation of the species."

Marine Mammal Protection Act (16 USC 31)

The MMPA prohibits, with certain exceptions, the "take" of marine mammals in U.S. waters and by U.S. citizens on the high seas, and the importation of marine mammals and marine mammal products into the U.S.

Jurisdiction for MMPA is shared by U.S. Fish and Wildlife Service (USFWS) and the NMFS. The USFWS's Branch of Permits is responsible for issuing take permits when exceptions are made to MMPA.

Migratory Bird Treaty Act (16 USC Sections 703 through 711)

The Migratory Bird Treaty Act (MBTA) is the domestic law that affirms, or implements, a commitment by the United States to four international conventions (with Canada, Mexico, Japan, and Russia) for the protection of a shared migratory bird resource. The MBTA makes it unlawful at any time, by any means, or in any manner to pursue, hunt, take, capture, or kill migratory birds. The law also applies to the removal of nests occupied by migratory birds during the breeding season. The MBTA makes it unlawful to take, pursue, molest, or disturb these species, their nests, or their eggs anywhere in the United States.

Fish and Wildlife Coordination Act (16 USC Sections 661–666c)

The Fish and Wildlife Coordination Act (FWCA) authorizes the Secretaries of Agriculture and Commerce to provide assistance to and cooperate with federal and State agencies to protect, rear, stock, and increase the supply of game and fur-bearing animals, as well as to study the effects of domestic sewage, trade wastes, and other polluting substances on wildlife. The amendments enacted in 1946 require consultation with USFWS and the fish and wildlife agencies of states where the "waters of any stream or other body of water are proposed or authorized, permitted or licensed to be impounded, diverted ... or otherwise controlled or modified" by any agency under a Federal permit or license. Consultation is to be undertaken for the purpose of "preventing loss of and damage to wildlife resources." The 1958 amendments expanded the instances in which diversions or modifications to water bodies would require consultation with USFWS. These amendments permitted lands valuable to the Migratory Bird Management Program to be made available to the state agency exercising control over wildlife resources.

Magnuson-Stevens Fishery Conservation and Management Act (16 USC Sections 1801 et seq.)

The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) is the primary law governing marine fisheries management in U.S. federal waters. Magnuson-Stevens Act Section 305(b), as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-297), requires federal agencies to consult with NMFS on activities that may adversely affect EFH for species that are managed under federal fishery management plans in United States waters. The statutory definition of EFH includes those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity, which encompasses all physical, chemical, and biological habitat features necessary to support the entire life cycle of the species in question.

Federal Clean Water Act (33 USC 1251 through 1376) Sections 401 and 404

The CWA provides guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters. Section 401 requires the Applicant to obtain a federal license or permit that allows activities resulting in a discharge to waters of the U.S. to obtain state certification, thereby ensuring that the discharge will comply with provisions of the CWA. Section 404 establishes a permit program administered by the USACE that regulates the discharge of dredged or fill material into waters of the U.S., including wetlands.

Rivers and Harbor Act of 1899 Section 10

Section 10 of the Rivers and Harbors Act of 1899 requires that regulated activities conducted below the ordinary high water (OHW) elevation of navigable waters of the U.S. be approved/permitted by the USACE. Regulated activities include placement and removal of structures, work involving dredging, disposal of dredged material, filling, excavation, or any other disturbance of soils/sediments or modification of a navigable waterway. Navigable waters of the U.S. are those that are subject to the ebb and flow of the tide shoreward to the mean high water mark and/or are presently used, or have been used in the past or may be susceptible to use to transport interstate or foreign commerce. Navigable waters of the U.S. are not necessarily the same as state navigable waterways. Tributaries and backwater areas associated with navigable waters of the U.S., and located below the OHW elevation of the adjacent navigable waterway, are also regulated under Section 10.

3.3.3.2 State***California Endangered Species Act (California Fish and Game Code Sections 2050 et seq.)***

CESA establishes the policy of the state to conserve, protect, restore, and enhance threatened or endangered species and their habitats. For projects that would affect a listed species under both the CESA and the FESA, compliance with the FESA would satisfy the CESA if CDFW determines that the federal incidental take authorization is "consistent" with the CESA under California Fish and Game Code Section 2080.1. For projects that would result in take of a species listed under the CESA only, the Applicant would have to apply for a take permit under Section 2081(b).

California Fully Protected Species

California fully protected species are described in California Fish and Game Code Sections 3511, 4700, 5050, and 5515. These statutes prohibit take or possession of fully protected species. The CDFW is unable to authorize incidental take of fully protected species when activities are proposed in areas inhabited by those species.

California State Fish and Game Code Sections 2080 and 2081

California Fish and Game Code Section 2080 states that “No person shall import into this state [California], export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the Commission [State Fish and Game Commission] determines to be an endangered species or threatened species, or attempt any of those acts, except as otherwise provided in this chapter, or the Native Plant Protection Act, or the California Desert Native Plants Act.”

California State Fish and Game Code Sections 3503, 3503.5, 3513, and 3800

California Fish and Game Code Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. California Fish and Game Code Section 3800 affords protection to all nongame birds, which are all birds occurring naturally in California that are not resident game birds, migratory game birds, or fully protected birds. California Fish and Game Code Section 3513 upholds the MBTA by prohibiting any take or possession of birds that are designated by the MBTA as migratory nongame birds except as allowed by federal rules and regulations promulgated pursuant to the MBTA.

California State Fish and Game Code Section 1602

Under this section of the California Fish and Game Code, a project proponent is required to notify CDFW prior to any project that would divert, obstruct, or change the natural flow, bed, channel, or bank of any river, stream, or lake.

Clean Water Act Section 401

Under CWA Section 401, the local RWQCB must certify that actions receiving authorization under CWA Section 404 also meet state water quality standards. The RWQCB requires projects to avoid impacts to wetlands if feasible and requires that projects do not result in a net loss of wetland acreage or a net loss of wetland function and values. Compensatory mitigation for impacts to wetlands and/or waters of the state is required.

California Coastal Act

The State Legislature enacted the CCA (PRC Sections 30000 et seq.) to provide for the conservation and planned development of the State’s coastline. The CCA defines the “coastal zone” as the area of the State which extends 3 miles seaward and generally about 1,000 yards inland; however, the inland extent of the coastal zone can extend in certain circumstances to a maximum of 5 miles inland from mean high tide line. In developed urban areas, the coastal zone extends substantially less than 1,000 yards inland.

The CCC approves coastal development permits (CDPs) for areas within its original and retained jurisdiction, such as waters of the State and tidelands, energy projects, and federal (federally approved, conducted, or funded) projects consistent with CCA policies. Local jurisdictions may obtain permitting authority under the CCA once a local coastal program has been certified by the CCC.

Applicable CCA policies regarding biological resources include:

Section 30230. Marine resources shall be maintained, enhanced, and, where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Section 30231. The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface waterflow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

Section 30233. (a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:

- (1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.
 - (2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.
 - (3) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.
 - (4) Incidental public service purposes, including, but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.
 - (5) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.
 - (6) Restoration purposes.
 - (7) Nature study, aquaculture, or similar resource-dependent activities.
- (b) Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be transported for these purposes to appropriate beaches or into suitable longshore current systems.
- (c) In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary. Any alteration of coastal wetlands identified by the Department of Fish and Game, including, but not limited to, the 19 coastal wetlands identified in its report entitled, "Acquisition Priorities for the Coastal Wetlands of California", shall be limited to very minor incidental public facilities, restorative measures, nature study, commercial fishing facilities in Bodega Bay, and development in already developed parts of south San Diego Bay, if otherwise in accordance with this division.

For the purposes of this section, "commercial fishing facilities in Bodega Bay" means that not less than 80 percent of all boating facilities proposed to be developed or improved, where the improvement would create additional berths in Bodega Bay, shall be designed and used for commercial fishing activities.

- (d) Erosion control and flood control facilities constructed on watercourses can impede the movement of sediment and nutrients that would otherwise be carried by storm runoff into coastal waters. To facilitate the continued delivery of these sediments to the littoral zone, whenever feasible, the material removed from these facilities may be placed at appropriate points on the shoreline in accordance with other applicable provisions of this division, where feasible mitigation measures have been provided to minimize adverse environmental effects. Aspects that shall be considered before issuing a coastal development permit for these purposes are the method of placement, time of year of placement, and sensitivity of the placement area.

Section 30240.

- (a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.
- (b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.

3.3.3.3 Local

City of Long Beach Municipal Code (Section 14.28)

The City of Long Beach Public Works Department is responsible for administering Long Beach Municipal Code (Tree Maintenance Policy), which is to preserve and protect the community's urban forest and to promote the health and safety of City trees, from the time they are planted through maturity.

The City's Tree Maintenance Policy stipulates guidelines for planting, maintenance and removal of street trees³³ located in the public rights-of-way. A permit must be obtained from the Director of Public Works prior to removal of trees from City property. The City also requires that the trees' condition be determined by a City-employed certified arborist prior to removal.

City of Long Beach General Plan

Conservation Element

Vegetation Management Goals

- To provide protective controls for lands supporting distinctive native vegetation, wildlife species which can be used for ecological, scientific and educational purposes.
- To locate, define, and protect other beneficial natural habitats in and about the City.

Wildlife Management Goals

- To promote measures and plans which protect and preserve distinctive types of wildlife including mammals, birds, marine organisms and especially endangered species.

Southeast Area Development and Improvement Plan³⁴

The Wetlands

1. The wetlands and associated habitats, and all fresh, brackish and tidal water supply and control systems, shall be constructed at the expense of the developers of Areas 11a, 25 and 26, unless otherwise provided for by agreements between land owners and the managing agency. The developer(s) of Areas 11a and 25 shall be responsible for wetlands development of Areas 23 and 33. The developer(s) of Area 26 shall be responsible for wetlands development of Area 27.
2. Owing to the need to make connections with the existing tidal marsh, the major wetlands restoration project between Los Cerritos Channel and Westminster Avenue shall be accomplished at one time.

³³ Street trees are those included in the City of Long Beach's Approved Street Tree List 2012 (City of Long Beach 2017).

³⁴ It is important to note that the SEADIP is the existing, adopted Specific Plan for the project area, while the SEASP is the draft Specific Plan update for the project area that has not been adopted by the City of Long Beach. The SEASP will be completed and issued in its final form within the lifetime of the proposed project. For the purposes of the proposed project, the environmental analysis will be compliance with the adopted SEADIP.

Restoration of wetlands north of the Los Cerritos Channel and south of the San Gabriel River need not be accomplished concurrently with the major restoration project, or with each other. Prior to the issuance of permits for residential, commercial or industrial development, each applicant shall develop a detailed phasing plan that assures that restoration of wetlands will be completed prior to or concurrently with the completion of urban development on related parcels as specified above. Said detailed phasing plans shall be submitted for approval to the agency responsible for granting the coastal permit.

3. The standard of wetlands restoration is that it shall be completed prior to or concurrently with upland development on related areas. This standard may be satisfied by using one of the following options: a. Percentage Option. Whenever part of the development acreage is built upon, an equal percentage of the future wetland acreage will be developed as wetlands; and b. Acre-for-Acre Option. For every acre of wetland identified for fill and/or consolidation under the Local Coastal Plan that will be covered by the development, the developer shall improve 1 acre of wetland.
4. Exceptions to this standard may arise in Areas 25, 26, and 27 where continuing oil operations and/or leasing problems may make it impossible to fulfill part of a permanent wetlands obligation in connection with upland developments. In such instances (and only in such instances), the following method of fulfilling the wetland obligation may be utilized.
 - a. The developer must first develop wetlands on all areas designated for wetlands, which are not encumbered, by active oil operations and/or leases.
 - b. If the full wetlands obligation is not satisfied thereby, the remainder of his obligation may be fulfilled by construction of interim wetland areas as a temporary wetlands restoration measure. If such an interim restoration alternative is needed, an interim wetlands restoration program may be developed for up to 8 acres of the total wetlands obligation for development of Parcel 26, and up to 8 acres for development of Parcel 25, where continuing oil operations and/or leasing problems may interfere with the total restoration program as set forth in the Wetlands Enhancement Plan. Such a program shall be subject to review and approval by the Executive Director of the California Coastal Commission in consultation with the Department of Fish and Game.

This alternate interim wetlands restoration program, limited for up to 16 acres total, shall at minimum, include provisions that:

- (1) Identify location and size of affected developable areas and proposed interim wetland areas, and provide for the construction of interim wetlands equal in productivity and size to areas filled. They shall be maintained for wildlife by the developer until such time as the major restoration program can be accommodated on encumbered lands.
- (2) Provide for a monitoring system undertaken in conjunction with Department of Fish and Game, assuring biological values of the interim wetlands.
- (3) Where legally possible, place deed restrictions over the interim wetlands prohibiting development in such areas until the implementation of the primary restoration program.
- (4) Provide for the construction of the interim wetlands prior to or concurrently with the development of wetland areas of Areas 25 and 26 that cannot be directly mitigated by the acre-for-acre restoration option set forth in the land use plan.
- (5) Insure that interim wetlands are to be viewed as temporary and shall not in any way be construed to increase the total wetland obligation within the study area. These areas may be converted to upland areas for development purposes upon completion of the primary restoration project.
- (6) When sufficient on-site acreage is not available, use of off-site acreage within the San Gabriel River Wetlands system may be permitted for interim wetlands, with such location of off-site interim wetlands being subject to the approval of the Executive Director of the California Coastal Commission in consultation with the Department of Fish and Game.

5. If an owner/developer elects to utilize the temporary wetlands option to obtain permits and proceed with development, it is necessary to provide a mechanism, which will assure that monies for future construction of permanent wetlands to replace the temporary wetlands will be available when such permanent construction is imminent. This is particularly important in view of the fact that many years may separate the construction of the temporary and permanent wetlands, and that during that span of time, title may change several times and the obligation for permanent wetlands construction may become clouded or lost. Therefore, when an owner/developer utilizes the temporary wetlands option (in the limited circumstances described in #4 above), he/she must deposit monies in a Wetlands Restoration Fund, under the terms described below, (or provide other means to guarantee development of the permanent wetlands):
 - a. The construction assurance funds shall be deposited at the time the developer applies for construction permits for a temporary wetlands program;
 - b. The amount of the funds to be deposited shall be derived from the cost estimate referred to in Item 5c, below;
 - c. The first developer shall be responsible for the preparation of construction drawings, specifications, and cost estimates for the total wetland plan in his area. Such cost estimates shall include a contingency factor, which is normal and customary in projects of this magnitude and complexity. These shall be approved by the engineer of the local jurisdiction in consultation with the Department of Fish and Game;
 - d. The Wetlands Restoration Fund shall be established by the City of Long Beach when the first assurance payment is imminent. The fund shall be established in an interest-bearing account. Interest shall accrue to the account. As much as possible, the account shall be managed to earn sufficient annual interest to match the annual increases in the Consumer Price Index for Southern California. Monies shall be withdrawn from the fund to pay for the construction of permanent wetlands deferred through use of the temporary option. Any monies remaining in the fund, including interest, after all wetlands are totally restored, shall be utilized for on-going maintenance of the wetlands. When an agency or non-profit corporation accepts permanent management responsibilities of the wetlands, the Fund may be transferred to that agency or corporation.
 - e. Wetlands in those areas for which assurance funds were deposited shall be developed at the first available opportunity. When an agency or non-profit corporation accepts permanent management responsibilities of the wetlands, the Fund may be transferred to that agency or corporation.
6. Overall custodial and interpretive management and financial responsibility for maintenance of Los Cerritos Wetlands shall be vested in an appropriate governmental agency or private non-profit corporation upon the initiation of the first wetlands restoration project. Prior to issuance of any permits for any projects related to wetlands construction, nomination of the managing agency shall be made by the City of Long Beach with the concurrence of the State Department of Fish and Game.

The Buffers

1. The wetlands are to be separated from urban developments by "buffers". In the context of this LCP, the buffers are treated as a part of the adjacent urban developments, as they will form a part of the amenities. Construction and maintenance of the buffers, therefore, falls entirely on the developers and their successors in interest. The reader should note that buffers are constructed only north of Westminster Avenue. The restored wetlands south of Westminster Avenue will have no buffers, owing to the fact that they will be separated from other uses by natural barriers.
2. Buffers between subareas 11a and 33 shall be created by developer(s) of 11a prior to or concurrently with development of upland areas. The berm between wetlands and development shall be created as a part of the grading operation of the wetland. If build out is phased over a period longer than two years,

then the landscaping and irrigation system for the buffer can be phased with each phase of landscaping for the development with this exception; that at the beginning of each phase, prior to finish grading for that phase, a row of shrubs shall be planted at the top of the berm to offer protection during construction. Provisions must be made to deny public access to all portions of areas not included in the current building program. Design of the buffers must conform to the standards set forth in the certified Local Coastal Plan for the Los Cerritos Wetlands.

3. If urban developments remain the property of landowners and/or developers, they shall be responsible for continuous maintenance of the buffers. This responsibility shall run with the land. If urban developments become condominiums, the buffers shall become a part of the area held in common, and continuous maintenance shall be the responsibility of the property owner's association(s). The agency in charge of the management of the restored wetlands may provide comments and recommendations to those responsible for maintenance of the buffers if lack of proper maintenance is causing the buffers to fail in their primary mission to prevent visual and physical access to the wetlands habitats. Breches in the buffer which seriously threaten habitat values in the wetlands, and which have been reported by the wetlands management agency and have not been repaired in a timely fashion by the individual or agency responsible for maintenance, may be repaired by the wetlands management agency. Costs for such repairs shall be collected from the property owner's association.
4. Where property owners' associations are formed, the requirement for continuous buffer maintenance shall be included in their Articles of Incorporation, and monthly dues shall be sufficient for this purpose.
5. The primary mission of the buffer is to prevent physical access into the wetlands and to prevent visual disturbances of wetland wildlife. The buffer, as shown in the Local Coastal Plan, consists of a berm of mounded soil, a fence, and plant material. Plant material will be chosen to be (in descending order of priority):
 - a. Of a growth form that supports the primary mission (i.e., of assistance in preventing access and/or screening development from the wetlands);
 - b. Compatible with soil, water and climate conditions of the immediate site;
 - c. Fast growing;
 - d. Compatible with adjacent development;
 - e. Low maintenance; and f. of wildlife food and/or cover value.

3.3.4 Analysis of Impacts

The following discussion examines the potential impacts to plant and wildlife resources that may occur as a result of implementation of the proposed project.

3.3.4.1 Significance Criteria

CEQA Guidelines Appendix G provides that a project would have a significant biological resources impact if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;
- 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;

- Have a substantial adverse effect on federally or state protected wetlands as defined by Clean Water Act Section 404 (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- 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; or
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

As identified in the Initial Study, the project is not subject to local, regional, or state habitat conservation plan. Therefore, this significance criterion does not apply to the project and is not further discussed.

3.3.4.2 Methodology

Project-related impacts can be direct or indirect and can occur during construction or operation of the proposed project. Direct impacts are considered to be those that involve the loss, modification, or disturbance of plant communities, which in turn directly affect the flora and fauna of those habitats. Direct impacts also include the destruction of individual plants or wildlife, which may also directly affect regional population numbers of a species or result in the physical isolation of populations thereby reducing genetic diversity and population stability.

Other impacts, such as loss of foraging habitat, can occur although these areas or habitats are not directly removed by project activity (i.e., indirect impacts). Indirect impacts can also involve the effects of increases in ambient levels of noise or light, competition with exotic plants and animals, and increased human disturbance. Indirect impacts may be associated with the subsequent day-to-day activities associated with some projects, such as increased traffic use, exotic ornamental plantings that provide a local source of seed, which may be both short-term and long-term in their duration. These impacts are commonly referred to as “edge effects” and may result in a slow replacement of native plants by exotics, and changes in the behavioral patterns of wildlife and reduced wildlife diversity and abundance in habitats adjacent to project site.

As stated in Chapter 1, *Introduction*, on April 28, 2016, the City sent a NOP to responsible, trustee, and federal agencies, as well as to organizations, and individuals potentially interested in the project to identify the relevant environmental issues that should be addressed in the EIR. Four responses pertaining to biological resources were received. One comment related to impacts from project implementation on wildlife from noise, traffic, and vibration. Other comments raised the issues of impacts related to the Pacific Flyway, the project’s connection to the Los Cerritos Wetlands Restoration Plan, and consideration of marsh bird nesting season. Lastly, a general comment was provided regarding impacts to local wildlife from project implementation. The potential for significant adverse effects, either directly or indirectly, on any special-status plant, animal, or habitat that could occur as a result of project implementation is discussed below.

3.3.4.3 Impact Evaluation

Impact BIO-1: The project would not have a substantial adverse effect, either directly or through habitat modifications, on southern tarplant, estuary seablite and woolly seablite, which are special-status plant 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. (Less than Significant with Mitigation)

Construction

Southern tarplant, a special-status plant, was verified to be present on the project site and would likely be impacted by the project. Southern tarplant is located within the proposed restoration and improvement areas on the Synergy Oil Field and Pumpkin Patch sites and, therefore, will likely be disturbed. Southern tarplant is also present on the City Property site in areas that would be improved by the project and likely to be disturbed. Estuary seablite and woolly seablite are present on the Synergy Oil Field site and would be avoided.

Synergy Oil Field Site

Southern Tarplant

Northern Area

Grading for the northern area would directly impact one population of southern tarplant located to the east of Steamshovel Slough. Grading would impact an estimated 6,000 individuals, which accounts for approximately 2.2 percent of the population on the Synergy Oil Field site based on 2016 estimates (GLA 2017a). The loss of an estimated 6,000 individuals of southern tarplant would be significant, considering this species is ranked CRPR 1B and is, therefore, considered rare, threatened, or endangered in California and elsewhere.

Implementation of Mitigation Measures BIO-1 and BIO-2 would reduce impacts to southern tarplant to a less-than-significant level by requiring avoidance of special-status plants, and restoration of any impacts to southern tarplant, respectively.

Southern Area

Removal of the pipelines and other oil field infrastructure exhibits potential for impacts to southern tarplant, since this species occurs on and adjacent to many of the disturbed pads where the proposed activities will take place. Implementation of Mitigation Measure BIO-1 would avoid special-status plants, and Mitigation Measure BIO-2 would require restoration of any impacts to southern tarplant.

Estuary Seablite and Woolly Seablite

Northern Area

Grading for the northern area has been designed to avoid estuary and woolly seablite plants. Therefore, there would be no direct or indirect impacts to these species. Nonetheless, Mitigation Measure BIO-1 would require avoidance of special-status plants to maintain no-disturbance buffers for avoidance.

Southern Area

Removal of the pipelines and other oil field infrastructure would not result in impacts to estuary or woolly seablite as these species do not occur within the southern area.

City Property Site

The City Property site contains a small population of southern tarplant. Installation of the pipeline corridor and removal of the pipelines and other oil field infrastructure exhibits potential for direct impacts to southern tarplant, since this species occurs on and adjacent to many of the disturbed pads where the activities would take place. Implementation of Mitigation Measure BIO-1 would require avoidance of special-status plants, and Mitigation Measure BIO-2 would require restoration of any unavoidable impacts.

Pumpkin Patch Site

Grading of the Pumpkin Patch site would result in direct impacts to approximately 155 individuals of southern tarplant. The loss of 155 individuals of southern tarplant would be significant considering this species is ranked CRPR 1B and is, therefore, considered rare, threatened, or endangered in California and elsewhere; however, implementation of Mitigation Measure BIO-1 would require avoidance of special-status plants, and Mitigation Measure BIO-2 would require restoration of any unavoidable impacts.

LCWA Site

The LCWA site does not have habitat that supports potentially-occurring special-status plants; therefore, there would not be any impacts to special-status plants associated with the portion of the proposed project that is on the LCWA site.

Operations

Following the completion of project construction activities, well plugging and abandonment or trail maintenance activities (such as the establishment and maintenance of a buffer zone between the trail and upper edge of restored habitats) could result in an adverse indirect impact to special-status plants such as the introduction or spread of weeds. In addition, improper installation or maintenance of fencing, or improper habitat restoration signage that would otherwise restrict people to the trail could result in adverse direct impacts to restored habitats and special-status plants. The direct and indirect impacts caused by these activities could be significant, but would be reduced through implementation of Mitigation Measure BIO-2, which addresses weed management and maintenance and monitoring procedures for southern tarplant restoration areas.

Mitigation Measures

Mitigation Measure BIO-1: Avoidance of Special-Status Plants. Prior to vegetation or ground disturbance, a qualified botanist/biologist shall flag special-status plants located within 25 feet of proposed disturbance areas on the project site including southern tarplant, estuary seablite, and woolly seablite. Individual plants shall be marked or flagged for avoidance and a minimum no-disturbance buffer of 10 feet shall be established. The appropriate buffer distance shall be determined by the qualified botanist/biologist. If southern tarplant plants cannot be avoided, Mitigation Measure BIO-2 shall be implemented.

Mitigation Measure BIO-2: Re-establish Southern Tarplant on Synergy Oil Field, City Property, and Pumpkin Patch Sites. Prior to any disturbance to special-status plants, a Southern Tarplant Restoration Plan shall be prepared and approved by CDFW. At a minimum, the Restoration Plan shall include the following:

- A map showing the areas to be restored following temporary impacts
- Weed management procedures to prevent introduction of invasive plant species on site prior to and during construction, and during maintenance

- Seed collection protocol
- Seed dispersal protocol
- Performance standards for the areas to be re-established
- Maintenance and monitoring procedures for the areas to be re-established
- Adaptive management strategies
- Reporting requirements

Significance Determination: Less than Significant with Mitigation.

Impact BIO-2: The project would not have a substantial adverse effect, either directly or through habitat modifications, on any special-status wildlife 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. (Less than Significant with Mitigation)

Construction

Synergy Oil Field Site

Mudflat Tiger Beetle, Wandering Skipper, Sandy Beach Tiger Beetle, Senile Tiger Beetle, Western Beach Tiger Beetle, and Western Tidal-Flat Tiger Beetle

Suitable habitat for these special-status invertebrates occur within Steamshovel Slough as well as areas to the south of the slough that support patches of saltgrass. Focused surveys have not been performed; however, it is expected that these invertebrates may occur within and/or adjacent to the salt marsh habitats throughout the site. Grading associated with northern area restoration activities would result in direct temporary impacts to habitat for these species; however, given the limited area of impact and the extensive area of suitable habitat that would be preserved in Steamshovel Slough and other portions of the site, the proposed impacts to these species and their preferred habitat would not cause the local populations to drop below self-sustainable levels. Impacts would be less than significant following the implementation of Mitigation Measure BIO-3, which would require biological monitoring and avoidance or relocation of special-status invertebrates.

Pacific Green Sea Turtle

The westernmost portion of Steamshovel Slough has been identified as potential habitat for the Pacific green sea turtle. There is no potential for project activities to impact this species since there would be no impacts to Steamshovel Slough. Therefore, no impacts on the green sea turtle or its habitat would occur.

American Peregrine Falcon

The Synergy Oil Field site contains suitable foraging habitat for the peregrine falcon, which is expected to forage at least occasionally on the site, particularly during the wintering period when populations of waterfowl and shorebirds are highest. Grading and restoration activities associated with the northern area would be temporary and may temporarily prevent American peregrine falcons from foraging on the project site; however, the proposed project would improve the existing habitat conditions following the completion of construction and improve the long-term viability and extent of foraging habitat for this species. Therefore, impacts to peregrine falcon and its foraging habitat would be less than significant following the

implementation of the proposed project. No suitable breeding or foraging habitat is present within the southern area; therefore, no impacts to American peregrine falcon or its habitat would occur as part of the southern area.

Belding's Savannah Sparrow

Belding's savannah sparrow was observed during focused surveys in 2017 along the berm that demarcates the southern limit of Steamshovel Slough, throughout the slough north of the berm, and in two areas located south of the berm (GLA 2017e). Habitat occupied by Belding's savannah sparrow during 2017 focused breeding season surveys are depicted in **Figure 3.3-8, Synergy Oil Field Site—Belding's Savannah Sparrow Habitat**. Project grading and associated restoration activities within the northern area would result in potentially significant direct and indirect impacts on the Belding's savannah sparrow. Potential direct impacts include the permanent and temporary loss of vegetation used by Belding's savannah sparrow for nesting or foraging (occupied habitat). Direct and permanent impacts to occupied habitat result exclusively from installation of the sheetpile wall and total 0.003 acre, consisting of 0.001 acre of Parish's glasswort patches and 0.002 acre of pickleweed mats. Direct and temporary impacts to occupied habitat would result from grading and construction of the restoration area and total 3.67 acres, consisting of 0.01 acre of California cordgrass marsh, 2.16 acres of Parish's glasswort patches, and 1.50 acres of pickleweed mats; however, impacts would be less than significant with the implementation of Mitigation Measure BIO-4, which requires a minimum habitat replacement ratio of 1:1 (created:impacted) and Mitigation Measure BIO-5, which requires re-establishment of permanent and temporary impacts to sensitive natural communities.

Indirect impacts to Belding's savannah sparrow would include noise and dust generated during construction that could disrupt breeding or other essential activities during the breeding season (e.g., vocalizing to attract mates, foraging, etc.). With implementation of Mitigation Measure BIO-6 below, indirect impacts to nesting Belding's savannah sparrow would be mitigated to a less-than-significant level through avoidance of active bird nests.

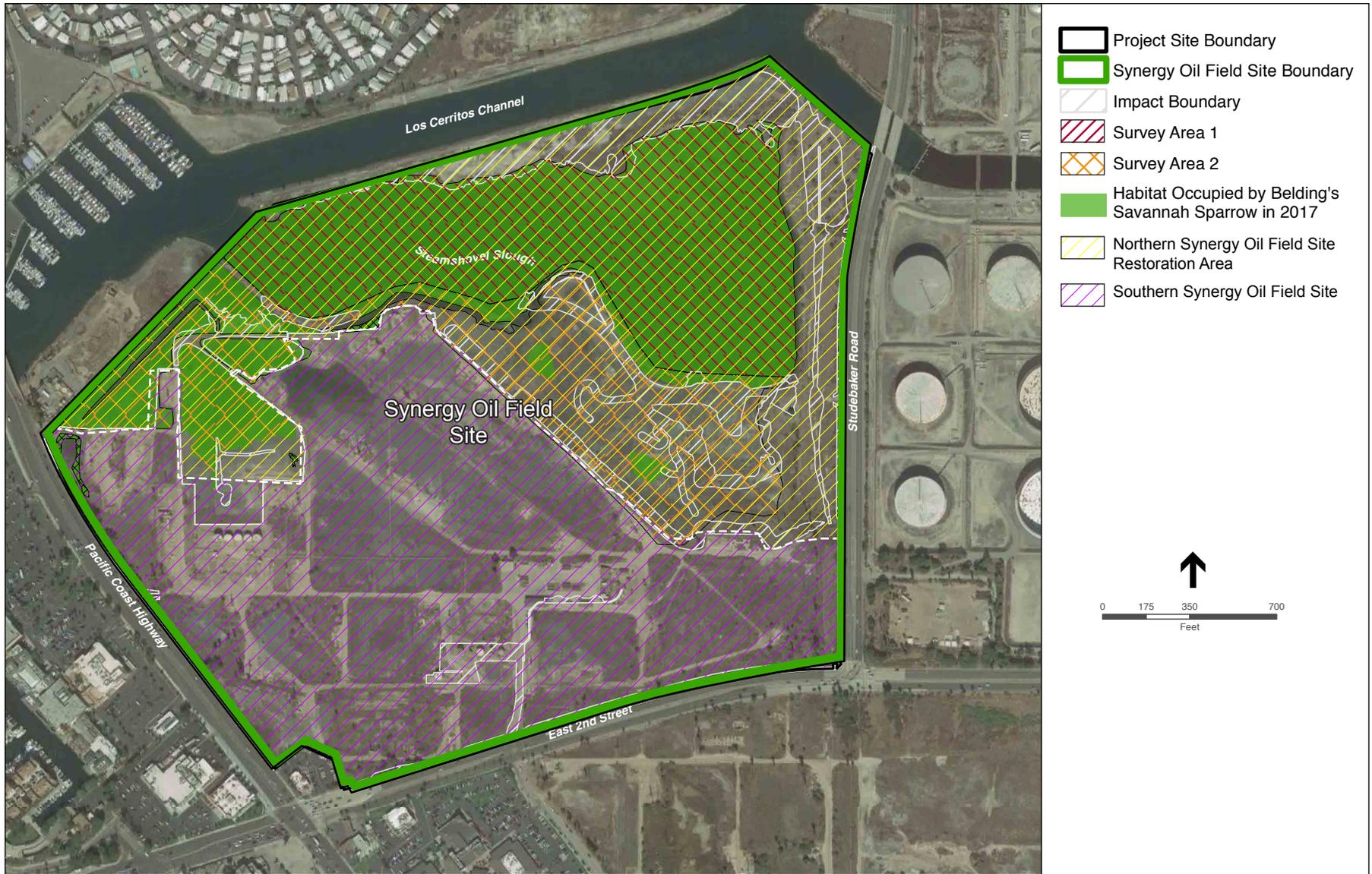
The southern area does not support suitable breeding or foraging habitat for Belding's savannah sparrow; however, potential indirect impacts to the species during construction activities could disrupt breeding behavior, which would be mitigated to a level of less than significant with implementation of Mitigation Measure BIO-6 through avoidance of active bird nests.

Burrowing Owl

Burrowing owls have not been observed on any of the four individual sites that comprise the project site during the breeding season or as wintering individuals. Nevertheless, suitable habitat is present and potential impacts could occur should a burrowing owl or owls occupy the site prior to construction activities. In accordance with Mitigation Measure BIO-7, potential impacts on burrowing owl would be less than significant through pre-construction surveys and specific avoidance measures.

California Least Tern

This species has been observed foraging within Steamshovel Slough; however, there are no potential breeding areas on the site. Limited grading of the berm that demarcates the limits of Steamshovel Slough exhibits potential for affecting foraging activities for brief periods; however, given that expansive areas of foraging areas both on site and off site are available, such short-term and localized impacts would not be considered significant. Southern area activities exhibit no potential for impacts on foraging by California least tern.



SOURCE: Glenn Lukos Associates

Long Beach Cerritos Wetland . 150712

Figure 3.3-8

Synergy Oil Field Site – Belding's Savannah Sparrow Habitat

Ridgway's Rail

The Ridgway's rail has not been observed on the Synergy Oil Field site. Nevertheless, suitable habitat is present in Steamshovel Slough, and potential direct impacts could occur during the northern area activities should a Ridgway's rail occupy the site. In addition, indirect impacts on Ridgway's rail could occur through disruption of nesting or other essential behaviors from construction noise and dust. Potential impacts on light-footed clapper rail would be avoided and minimized through pre-construction nesting bird surveys and avoidance as identified in Mitigation Measure BIO-6.

Merlin

Merlins have not been observed on the Synergy Oil Field site; however, there is no potential breeding habitat on site. Limited grading of the berm that demarcates the limits of Steamshovel Slough exhibits potential for affecting foraging activities for brief periods; however, given that expansive areas of foraging areas both on site and off site are available, such short-term and localized impacts would not be considered significant. Southern area activities exhibit no potential for impacts on foraging by Merlins.

Northern Harrier (Nesting)

Northern harriers have occasionally been observed foraging on the site. There have been no records of this species nesting on the site. Grading or other restoration activities associated with the northern and southern areas could result in significant impacts on the northern harrier if this species was found to be nesting on site. Potential nesting impacts to northern harrier would be avoided and minimized through pre-construction nesting avian surveys and avoidance as identified in Mitigation Measure BIO-6.

Western Snowy Plover

The western snowy plover has not been observed foraging on the site and the project site contains no suitable breeding areas. Nevertheless, suitable foraging habitat occurs and grading associated with northern area restoration activities within Steamshovel Slough and other tidal areas of the Synergy Oil Field site would temporarily remove potential foraging habitat; however, given the limited area of impact and the extensive area of suitable habitat preserved in Steamshovel Slough and other portions of the site, potential habitat impacts would be less than significant.

White-Tailed Kite

White-tailed kites have been observed foraging on the site; however, there is little suitable habitat for nesting and the species is not expected to nest on the site. Grading or other restoration activities associated with northern or southern area activities could result in significant impacts on the white-tailed kite if this species was found to be nesting on site. Potential nesting impacts would be avoided and minimized through pre-construction nesting avian surveys and avoidance as identified in Mitigation Measure BIO-6.

Nesting Birds and Migratory Bird Treaty Act Considerations

Each of the four individual sites contains vegetation, including trees, shrubs, and other low-growing vegetation that have the potential to support nesting birds. Impacts to migratory and resident nesting avian species are prohibited under the MBTA and provisions of the California Fish and Game Code. Potential impacts to nesting birds and raptors would be avoided and minimized through pre-construction nesting avian surveys and avoidance as identified in Mitigation Measure BIO-6.

South Coast Marsh Vole and Southern California Salt Marsh Shrew

The south coast marsh vole and Southern California salt marsh shrew were not observed on site during any general biological surveys; however, the salt marsh areas within Steamshovel Slough may provide suitable habitat for this species. Grading to remove portions of the berm during northern area restoration activities exhibits potential for limited impacts on this species; however, given the limited area of impact and the extensive area of suitable habitat preserved in Steamshovel Slough, potential habitat impacts would not cause this species to drop below self-sustaining levels. Restoration activities would not be expected to result in the direct loss of individuals and the implementation of the project would improve the condition and extent of this species' preferred habitat following completion of the project. Implementation of Mitigation Measure BIO-3 would ensure that these mammals would be unharmed if encountered and result in a less-than-significant impact.

City Property Site

The following species exhibit no potential for occurring on the City Property site and would not be subject to potential project impacts:

- California least tern;
- Light-footed clapper rail;
- Western snowy plover;
- Mudflat tiger beetle;
- Sandy beach tiger beetle;
- Senile tiger beetle;
- Western beach tiger beetle; and
- Western tidal-flat tiger beetle.

The species with potential to occur are addressed below.

Wandering Skipper

Suitable habitat for these special-status invertebrates occurs within areas that support patches of saltgrass. Focused surveys have not been performed; however, it is expected that these species could occur within areas of suitable habitat on the site. Installation of the pipeline corridor and removal of the pipelines and other oil field infrastructure could result in injury or mortality of individuals. Implementation of Mitigation Measure BIO-3 would require avoidance or relocation of these invertebrates if encountered during biological monitoring; therefore, impacts would be less than significant.

American Peregrine Falcon

The City Property site does not support suitable nesting habitat for American peregrine falcon. The site contains suitable foraging habitat for this species, which is expected to forage at least occasionally on the site, particularly during the wintering period when populations of waterfowl and shorebirds are highest. Installation of the pipeline corridor and removal of the pipelines and other oil field infrastructure would result in a nominal disturbance to potential foraging habitat considering the amount of suitable habitat present in the immediate vicinity; therefore, impacts would be less than significant.

Belding's Savannah Sparrow

Belding's savannah sparrow is not known to breed or occur on the City Property site. Therefore, installation of the pipeline corridor and removal of the pipelines and other oil field infrastructure would not be expected to impact Belding's savannah sparrow.

Burrowing Owl

Burrowing owls have not been observed on the City Property site as breeding or as wintering individuals. Nevertheless, suitable breeding and wintering habitat is present and potential impacts could occur should a burrowing owl or owls occupy the site prior to construction activities. Potential impacts on burrowing owl would be mitigated through pre-construction surveys and associated avoidance as required under Mitigation Measure BIO-7; therefore, impacts would be less than significant.

Northern Harrier (Nesting)

Northern harriers have occasionally been observed foraging on the site. There have been no records of species nesting on the site. Nevertheless, installation of the pipeline corridor and removal of the pipelines and other oil field infrastructure would result in potentially significant impacts on the northern harrier if this species was found to be nesting on site. Potential nesting impacts to northern harrier would be avoided and minimized through pre-construction nesting avian surveys and avoidance as identified in Mitigation Measure BIO-6; therefore, impacts would be less than significant.

White-Tailed Kite

White-tailed kites exhibit potential for foraging on the site; however, there is little suitable habitat for nesting and the species is not expected to nest on the site. Nevertheless, installation of the pipeline corridor and removal of the pipelines and other oil field infrastructure could result in significant impacts on the white-tailed kite if this species was found to be nesting on site. Potential nesting impacts would be avoided and minimized through pre-construction nesting avian surveys and avoidance as identified in Mitigation Measure BIO-6; therefore, impacts would be less than significant.

Nesting Birds and Migratory Bird Treaty Act Considerations

As discussed for the Synergy Oil Field site, potential impacts to nesting birds and raptors would be avoided and minimized through pre-construction nesting avian surveys and avoidance as identified in Mitigation Measure BIO-6; therefore, impacts would be less than significant.

Pumpkin Patch Site

The following species exhibit no potential for occurring on the Pumpkin Patch site and would not be subject to potential project impacts:

- American peregrine falcon;
- Belding's savannah sparrow;
- California least tern;
- Light-footed clapper rail;
- Northern harrier;
- White-tailed kite;

- Western snowy plover;
- Mudflat tiger beetle;
- Sandy beach tiger beetle;
- Senile tiger beetle;
- Western beach tiger beetle; and
- Western tidal-flat tiger beetle.

The species with potential to occur in the northeast lower portion of the site are addressed below.

Wandering Skipper, South Coast Marsh Vole, and Southern California Salt Marsh Shrew

Suitable habitat for wandering skipper, south coast marsh vole, and Southern California salt marsh shrew is limited to the northeast portion of the site where there are limited saltgrass patches that occur with the pickleweed mats. These areas would be avoided and set back 100 feet from the edge of development; therefore, there would be no direct impact to habitat for these species during construction or long-term operations. Implementation of Mitigation Measure BIO-3 would require avoidance or relocation of special-status wildlife if encountered during biological monitoring; therefore, impacts would be less than significant.

Burrowing Owl

Burrowing owls have not been observed on the Pumpkin Patch site as breeding or as wintering individuals. Nevertheless, suitable breeding and wintering habitat is present and potential impacts could occur should a burrowing owl or owls occupy the site prior to construction activities. Potential impacts on burrowing owl would be mitigated through pre-construction surveys and associated avoidance as required under Mitigation Measure BIO-7; therefore, impacts would be less than significant.

Nesting Birds and Migratory Bird Treaty Act Considerations

As discussed for the Synergy Oil Field site, potential impacts to nesting birds and raptors would be avoided and minimized through pre-construction nesting avian surveys and avoidance as identified in Mitigation Measure BIO-6; therefore, impacts would be considered less than significant.

LCWA Site

The following species do not exhibit potential for occurring on the LCWA site and would not be subject to potential project impacts: mudflat tiger beetle, wandering skipper, sandy beach tiger beetle, senile tiger beetle, western beach tiger beetle, and western tidal-flat tiger beetle, American peregrine falcon, Belding's savannah sparrow, California least tern, light-footed clapper rail, northern harrier, south coast marsh vole, Southern California salt marsh shrew, and western snowy plover. The species with potential to occur on the LCWA site are addressed below.

Burrowing Owl

Burrowing owls have not been observed on the LCWA site as breeding or as wintering individuals. Nevertheless, suitable breeding and wintering habitat is present and potential impacts could occur should a burrowing owl or owls occupy the site prior to construction activities. Potential impacts on burrowing owl would be mitigated through pre-construction surveys and associated avoidance as required under Mitigation Measure BIO-7; therefore, impacts would be less than significant.

White-Tailed Kite

The LCWA site includes a number of trees that exhibit potential for nesting by the white-tailed kite. While nesting has not been previously observed, there is potential for this species to nest in the future. Direct impacts to nests would be considered significant; however, with implementation of Mitigation Measure BIO-8, any potential nesting impacts to white-tailed kite would be reduced to a level of less than significant.

Nesting Birds and Migratory Bird Treaty Act Considerations

As discussed for the Synergy Oil Field site, potential impacts to nesting birds and raptors would be avoided and minimized through pre-construction nesting avian surveys and avoidance as identified in Mitigation Measure BIO-6.

Operation

Following the completion of project construction activities, well plugging and abandonment or trail maintenance activities (such as the establishment and maintenance of a buffer zone between the trail and upper edge of restored habitats) could result in an adverse indirect impact to nesting avian species. Potential impacts to nesting birds and raptors during project operations would be reduced to a less-than-significant level through implementation of Mitigation Measure BIO-6; therefore, impacts would be less than significant.

In addition, the proposed office building and storage warehouse proposed at the Pumpkin Patch site will have exterior building lights that area illuminated at night that is similar to the adjacent existing office buildings to the north. The parking lot and oil facility areas may also require lighting at night. Without proper placement and/or shielding, light trespass and/or glare may result from the artificial lighting into the avoided 2-acre coastal wetland (and potentially, beyond, into the City Property site) in the northeast portion of the site. Implementation of Mitigation Measure BIO-9 would minimize light spillage to wetland habitats and wildlife; therefore, impacts would be less than significant.

The proposed project would not be expected to change tide and storm water levels on the project site and in its vicinity based on modeling of sea level rise scenarios; therefore, no impacts would occur to tidal marsh special-status species as a result of the interaction between the project and sea level rise.

Mitigation Measures

Mitigation Measure BIO-3: Biological Monitoring. All proposed project implementation shall occur under the supervision and direction of a qualified biologist. The biologist shall ensure maximum avoidance and minimization of impacts to wildlife and wetland vegetation during implementation of project activities on the Synergy Oil Field site, Pumpkin Patch site, and City site.

Prior to the daily start of cleanup activities and at the end of the work day, wildlife monitoring by a qualified biologist shall include inspection of any hazardous features (e.g., open trenches) that would trap, displace, injure, or kill wildlife. Prior to the end of daily cleanup activities, the biologist shall ensure all trash is properly disposed of such that it would not be accessible to wildlife.

For areas that contain suitable habitat for special-status wildlife, prior to and during all vegetation and ground-disturbing activities, a qualified biologist shall monitor work areas. If any special-status wildlife species are encountered during biological monitoring or by construction workers, work shall halt until the biologist determines appropriate actions to avoid and minimize harm to the species. California Fully-Protected species shall be avoided. Other actions may include relocation of the species for non-listed wildlife; however, relocation shall not be allowed for any listed species without first obtaining take

authorization from USFWS and/or CDFW. To the extent feasible, non-listed wildlife shall be relocated to a CDFW/USFWS-approved relocation site that contains suitable habitat adjacent to the habitat where the species is found.

Mitigation Measure BIO-4: Belding's Savannah Sparrow Breeding Habitat. Suitable breeding habitat shall be created on the Synergy Oil Field site at a minimum acreage of 1:1 (created: impacted). Suitable breeding habitat shall consist of areas dominated by pickleweed and Parish's glasswort with a minimum 60 percent cover with a hydrologic regime similar to that currently present in the northern area, with suitable slope, inundation and soil salinity. The re-establishment requirements for Belding's savannah sparrow suitable breeding habitat (dominated by pickleweed and Parish's glasswort) shall be addressed in the Restoration Plan for the Synergy Oil Field site as outlined in Mitigation Measure BIO-5.

Mitigation Measure BIO-5: Re-establish Sensitive Natural Community Vegetation Alliances Subject to Permanent and Temporary Impacts. Sensitive natural communities located on the project site include California cordgrass marsh, Parish's glasswort patches, alkali heath marsh, pickleweed mats, Emory's baccharis thickets, black willow thicket, southern coastal brackish marsh, southern coastal salt marsh, and alkali meadow.

Prior to any vegetation or ground disturbance associated with the Synergy Oil Field or City Property site, comprehensive restoration plans shall be prepared and implemented within 1 year of impacts to sensitive natural communities. The Restoration Plan for the Synergy Oil Field site will be subject to review and approval of the Interagency Review Team (IRT) led by the Corps, and evidence of the IRT's approval shall be submitted to the City prior to initiation of grading activity on the Synergy Oil Field site. The Revegetation Plan for the City Property site shall be reviewed and approved by the CCC. The plans shall include, at a minimum, the following:

- A map showing the areas to be restored following permanent and temporary impacts.
- Identify specific restoration actions (e.g., revegetation requirements, removal of non-native plants) to be implemented during restoration.
- Quantity and quality of vegetation communities to be restored on site. Permanent impacts shall be restored at a minimum of 2:1 and temporary impacts restored at 1:1. The amount and extent of restoration shall be identified and determined based on habitat quality prior to implementation of the Restoration Plan and the initiation of any vegetation or ground disturbance.
- Plant palette for each Sensitive Natural Communities subject to re-establishment.
- Specific measurable performance standards for the areas to be re-established to evaluate habitat development, species composition and ecosystem functions.
- A timeline for implementation (within 1 year of impacts to sensitive natural communities).
- Provide specific protocols for monitoring, including sample design (e.g., number of replicates, locations for sample points, transects, etc.), sampling methods to be implemented, and statistical methods for analyzing the data.
- Maintenance procedures for areas to be re-established.
- Identify contingency plans (i.e., adaptive management procedures) to be implemented if specific performance goals are not met within the timeframe anticipated.
- Performance goals for the restoration that shall focus on habitat development, species composition, and ecosystem functions.
- Reporting requirements.

Mitigation Measure BIO-6: Nesting Bird and Raptor Avoidance. A qualified biologist shall identify areas where nesting habitat for birds and raptors is present. To ensure the avoidance of impacts to native nesting avian species, the following measures shall be implemented pursuant to the MBTA and California Fish and Game Code:

- Construction and maintenance activities during operations within and adjacent to known and potential avian nesting habitat shall be limited to the non-breeding season (September 1 through December 31) to the extent feasible. If construction or maintenance activities will occur during the avian nesting season (generally March 1 through August 31 for passerines and January 1 through August 31 for raptors), a qualified biologist shall conduct pre-construction nesting avian surveys within 5 days of the initiation of construction to determine the presence or absence of active nests. If a lapse in work of 5 days or longer occurs, another survey shall be conducted prior to work being reinitiated. Surveys shall include any potential habitat, including trees, shrubs, and on the ground, or on nearby structures that might be impacted by construction or maintenance activities that may cause nest destruction or abandonment, such as vegetation or weed removal, earth work, and vector control actions.
- If active nests are observed, an avoidance buffer shall be demarcated with exclusion fencing and shall be maintained until the qualified biologist determines that the young have fledged. Fence stakes designed with bolt holes shall be plugged with bolts or other materials to avoid entrapping birds. The initial avoidance buffer(s) shall extend a minimum of 500 feet in all directions for raptors and listed passerines such as Belding's savannah sparrow and Ridgway's rail, and 300 feet in all directions for all other native passerines. A reduced buffer may be implemented at the discretion of the biologist for non-listed passerines based on such factors as species-tolerance to human presence, location of the nest, and the timing of nest construction, such as whether the nest was constructed after construction is initiated; however, for raptors and listed passerines, the biologist shall obtain approval from USFWS and/or CDFW prior to allowing work to commence within the 500-foot buffer.

Mitigation Measure BIO-7: Habitat Assessment and Pre-Construction Surveys for Burrowing Owl. A qualified biologist shall conduct a pre-construction burrowing owl survey of the project site prior to construction activities. If burrowing owls are detected, a Burrowing Owl Management Plan shall be prepared and approved by CDFW prior to commencement of construction. The Burrowing Owl Management Plan shall be prepared in accordance with the CDFW 2012 Staff Report on Burrowing Owl Mitigation and shall address specific minimization and avoidance measures for burrowing owls, and measures to protect occupied habitat, such as avoidance and revegetation.

Mitigation Measure BIO-8: Avoidance of White-Tailed Kite Nesting. Remove all trees on the site outside the white-tailed kite nesting season (February 1 through June 30). If it is not possible to remove trees during the non-breeding season, a qualified biologist shall conduct a survey no more than 5 days prior to tree removal to document the absence of nests. If active nests are detected, they shall be avoided and a 500-foot no-disturbance buffer established (or reduced as specified in BIO-6). The qualified biologist shall monitor the site weekly until the nestlings have fledged and are no longer dependent on the nest.

Mitigation Measure BIO-9: Minimization of Light Spillage. A Project Lighting Plan shall be designed to minimize light trespass and glare into the avoided wetland habitat in the northeast portion of the site. Artificial lights shall be directed away from or shielded to prevent spillage into the avoided wetland habitat.

Significance Determination: Less than Significant with Mitigation.

Impact BIO-3: The project would not have a substantial adverse effect on 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. (Less than Significant with Mitigation)

Construction

Synergy Oil Field Site

Northern Area

Within the northern 76.52-acre area, direct impacts would be limited to grading necessary to reintroduce tidal flows, construction of a berm and sheet pile to contain the re-established tidal flows, construction of the trail and temporary impacts associated with sidewalk construction.

Sheet pile and trail installation are considered permanent impacts; however, the amount of vegetated wetlands impacted by these activities is limited to 0.003 acre (approximately 130 square feet [sf]), which is less than one-quarter of 1 percent of the entire northern 76.52-acre area and is limited to the sheet pile installation only. Of the 0.003 acre of permanent impacts to vegetated wetland alliances, 0.002 acre (approximately 87 sf) occurs within pickleweed mats (66 percent of the permanent impacts to wetland alliances) and 0.001 acre (approximately 44 sf) occurs within Parish’s glasswort patches (Table 3.3-15). The pedestrian trail would be constructed along the eastern portion of the site, parallel with Studebaker Road and would be approximately 6 feet wide with a decomposed granite surface. At the northern terminus of the trail, an overlook terrace would be constructed to allow for the full view of the restored wetlands at the highest elevation on the site.

Table 3.3-15, Permanent Impacts to Sensitive Natural Communities Associated with Grading and Construction of Restoration Areas (Acres): Synergy Oil Field Site—Northern Area, and Table 3.3-16, Temporary Impacts to Sensitive Natural Communities Associated with Grading and Construction of Restoration Areas (Acres): Synergy Oil Field Site—Northern Area, summarize permanent and temporary impacts to vegetation alliances on the Synergy Oil Field site for the northern 76.52-acre area. Sensitive habitats that would be temporarily impacted include alkali heath marsh, California cordgrass marsh, Parish’s glasswort patches, and pickleweed mats. All temporary impacts to these sensitive habitats associated with grading, berm installation, overlook terrace fill, berm/road removal, and sidewalk grading total 3.80 acres (5 percent of the entire northern area) and would be considered temporary given that these areas would be restored to coastal salt marsh, transitional wetland, or other native habitat comprising a total of 61.32 acres of coastal salt marsh enhancement, rehabilitation or reestablishment as part of the northern area restoration.

Table 3.3-15 Permanent Impacts to Sensitive Natural Communities Associated with Grading and Construction of Restoration Areas (Acres): Synergy Oil Field Site—Northern Area

Wetland Alliances	Sheet pile Wall	Trail
Parish’s glasswort patches	0.001	0.00
Pickleweed mats	0.002	0.00
Total	0.003	

SOURCE: Glenn Lukos Associates, Inc., 2017a.

Table 3.3-16 Temporary Impacts to Sensitive Natural Communities Associated with Grading and Construction of Restoration Areas (Acres): Synergy Oil Field Site—Northern Area

Wetland Alliances	Transitional Wetland Grading	Tidal Channel Grading	Seawall Berm	Overlook Terrace	Berm/Road Removal	Sidewalk Grading
Alkali Heath Flats (Non-Tidal)	0.13	0.00	0.00	0.00	0.00	0.00
California Cordgrass Marsh	0.00	0.00	0.00	0.00	0.01	0.00
Parish's Glasswort Patches	0.09	1.14	0.58	0.00	0.35	0.00
Pickleweed Mats	0.67	0.47	0.25	0.04	0.07	0.00
<i>Wetland Alliances Subtotal by Category</i>	<i>0.89</i>	<i>1.61</i>	<i>0.83</i>	<i>0.04</i>	<i>0.43</i>	<i>0.00</i>
Grand Total			3.80			

SOURCE: Glenn Lukos Associates, Inc., 2017a.

Overall, there would be no net loss of habitat; rather, there would be an increase in sensitive natural communities, including wetland habitats, both in terms of areal extent and function. Signs would be installed along the trail in several places to inform the public of the sensitive habitats within the northern area and to prohibit off-trail access. The trail would be separated from the wetland areas to the west by almost 100 feet of native upland buffer. Complete details of each activity associated with restoring the wetlands in the northern area, including long-term management of the site, are provided in the Restoration Plan for the Upper Los Cerritos Wetlands Mitigation Bank (Appendix C2). Impacts to sensitive natural communities would be less than significant.

Southern Area

On the southerly 73.07-acre area on the Synergy Oil Field site, the project would implement public access improvements on 1.28 acres, including a trail on existing earthen access roads that would connect to the trail on the northern area, a parking lot on existing disturbed areas, and relocating and converting an existing building for use as a visitors center.

At the request of the City, 8- to 10-foot-wide sidewalks would be added along the perimeter of the Synergy Oil Field site on PCH, 2nd Street, and Studebaker Road. **Table 3.3-17, Direct Impacts to Sensitive Natural Communities: Synergy Oil Field Site—Southern Area—Temporary Sidewalk**, identifies 0.30 acre of temporary impacts to sensitive natural communities associated with sidewalk grading. A portion of the 8- to 10-foot-wide sidewalks along the Synergy Oil Field site would extend off site into the City’s right-of-way; however, temporary grading impacts for the off-site sidewalks would occur within primarily disturbed areas; therefore, no permanent impacts to sensitive natural communities would occur. Temporary impacts would be mitigated with implementation of Mitigation Measure BIO-5 through re-establishment of impacted sensitive natural communities.

Table 3.3-17 Direct Impacts to Sensitive Natural Communities: Synergy Oil Field Site—Southern Area—Temporary Sidewalk

Community	Acres
Alkali Heath Flats	0.02
Black Willow	0.01
Pickleweed Mats	0.27
Total	0.30

SOURCE: Glenn Lukos Associates, Inc., 2017a.

The removal of oil facilities, such as aboveground pipelines and tanks, would occur throughout the area, along with the removal and abandonment of 39 oil wells over time. The disturbed and developed areas comprise the existing paved entry road from 2nd Street up to the Bixby Ranch office building, unpaved and compacted parking and storage areas, earthen compacted access road on which the trail would be placed, the existing Bixby Ranch office building, and areas along the perimeter where the sidewalk would be constructed. From the new parking lot and trail head, access to the trail that extends to the east onto the northern area would be provided on the existing compacted earthen road. To secure the existing oil field, fencing may be installed along all public access improvement areas (i.e., access road from 2nd Street and parking lot) that interface with the oil field. All of the public access improvements would occur on existing disturbed areas, and no sensitive natural communities would be impacted since these areas are already disturbed and do not support special-status species.

In addition, approximately 66,000 linear feet of aboveground pipelines and racks are sited throughout the southern area, many of which occur over wetland areas, and the project would remove approximately 95 percent of these facilities. The pipelines and racks would be cut and removed/pulled by hand onto the adjacent earthen road network located throughout the site. Plastic tarps would be laid beneath the pipelines prior to removal to collect any pieces of the pipe that may come apart during the removal process and prevent them from falling into the wetlands. After the pipes are placed on the roads, they may be further cut into smaller segments and loaded onto trucks by small equipment such as a bobcat for disposal off site. No equipment would be driven onto vegetated wetland areas; only access on foot would occur within vegetated wetland areas. The disturbance area associated with removal of the two tank farms will not exceed the existing disturbed pad surrounding the tanks. The tank farms are located on unvegetated disturbed pads and surrounded by existing earthen roads. All tank-related materials would be loaded onto trucks for off-site disposal. As previously indicated, the areas where the existing pipeline, rack, and tanks are located are already disturbed and no sensitive natural communities identified by CDFW are present within these areas.

City Property Site

Similar to the southern area on the Synergy Oil Field site, the removal of oil facilities such as aboveground pipelines and tanks would also occur on the City Property site. Approximately 20,000 linear feet of aboveground pipelines and racks on the City Property site would be removed, with some of these pipelines occurring over wetland areas. The pipelines and racks will be cut and removed/pulled by hand onto the adjacent earthen road network located throughout the site. Plastic tarps will be laid beneath the pipelines prior to removal to collect any pieces of the pipe that may come apart during the removal process and prevent them from falling into the wetlands. Once on the roads, the pipes may be further cut into smaller segments and loaded onto trucks by small equipment such as a bobcat for disposal off site. No equipment would be driven onto vegetated wetland areas—only access on foot would occur within vegetated wetland areas. The

disturbance area associated with removal of the one tank farm would not exceed the existing disturbed footprint surrounding the tanks. The tanks are located on unvegetated pads and surrounded by existing earthen roads. All tank-related materials would be loaded onto trucks for disposal off site. Based on the method of pipeline, rack, and tank removal, and the already disturbed areas that would be used to facilitate the removals, no impact to sensitive natural communities are expected; however, in the event that inadvertent and temporary impacts to sensitive natural communities occur, such potentially significant impacts would be reduced to a less-than-significant level with implementation of Mitigation Measure BIO-5.

Once the aboveground pipelines and tank are removed, and as each of the 13 oil wells from the City Property site are removed and abandoned over time, all unvegetated disturbed pads surrounding the pipelines, tank, and oil wells, as well as any area temporarily affected during the removals, will be revegetated with a native upland seed mix comprising coyote brush, goldenbush, western ragweed (*Ambrosia psilostachya*), and bush sunflower (*Encelia californica*). The native shrub cover will enhance the appearance of the oil field, help suppress the invasion of non-native species, and provide erosion control.

In order to connect the new oil production operations on the Pumpkin Patch and LCWA sites and to minimize truck traffic transporting produced oil, a new aboveground pipeline network supplying oil, gas, power, and water lines would be constructed on the City Property site within a 40-foot-wide corridor. The corridor would provide sufficient area to accommodate construction of the aboveground layout of pipeline and earthen access road. Within the corridor, an earthen berm up to approximately 18 inches high would be installed on each side of the pipeline and would be designed to contain the estimated spill volume in the unlikely event of a pipeline spill or rupture. The pipeline corridor would be sited primarily on existing oil field roads and developed areas; however, the existing oil field roads would need to be permanently widened to a total width of approximately 28 feet within the pipeline corridor to accommodate both the pipeline network and vehicular access.

Off site, a 10-foot-wide sidewalk would be added along 2nd Street. Segments of the pipeline traverse off site within the City's right-of-way through the intersection at 2nd Street and Studebaker Road (underground) and at the southern end prior to entering the Pumpkin Patch site. **Table 3.3-18, Summary of Permanent Impacts to Sensitive Natural Communities: City Property Site—Pipeline Corridor**, identifies 0.15 acre of permanent impacts to sensitive natural communities associated with construction of the pipeline corridor, which are considered as permanent impacts. **Table 3.3-19, Summary of Permanent Impacts to Sensitive Natural Communities: City Property Site (Off Site in City's Right-of-Way)—Sidewalk**, and **Table 3.3-20, Summary of Temporary Impacts to Sensitive Natural Communities Impacts: City Property Site (Off Site in City's Right-of-Way)—Sidewalk**, identify the permanent impacts (0.06 acre) and temporary impacts (0.41 acre) to sensitive natural communities associated with sidewalk construction.

Implementation of Mitigation Measure BIO-5 would reduce impacts to sensitive natural communities to a less-than-significant level.

Table 3.3-18 Summary of Permanent Impacts to Sensitive Natural Communities: City Property Site—Pipeline Corridor

Community	Acres
Southern Coastal Brackish Marsh (<i>Typha domingensis</i> —Herbaceous Alliance (Cattail Marshes))(G5S5). Includes areas also containing pickleweed mats and saltgrass flats.	0.001
Alkali Meadow (<i>Frankenia salina</i> Herbaceous Alliance (Alkali heath marsh)(G4S3) and or <i>Distichlis spicata</i> Herbaceous Alliance (Saltgrass Flats))(G5S4)	0.15
Total	0.15

SOURCE: Glenn Lukos Associates, Inc., 2017a.

Table 3.3-19 Summary of Permanent Impacts to Sensitive Natural Communities: City Property Site (Off Site in City’s Right-of-Way)—Sidewalk

Community	Acres
Southern Coastal Brackish Marsh (<i>Typha domingensis</i> —Herbaceous Alliance (Cattail Marshes))(G5S5). Includes areas also containing pickleweed mats and saltgrass flats.	0.06

SOURCE: Glenn Lukos Associates, Inc., 2017a.

Table 3.3-20 Summary of Temporary Impacts to Sensitive Natural Communities Impacts: City Property Site (Off Site in City’s Right-of-Way)—Sidewalk

Community	Acres
Southern Coastal Brackish Marsh (<i>Typha domingensis</i> —Herbaceous Alliance [Cattail Marshes] [G5S5]). Includes areas also containing pickleweed mats and saltgrass flats.	0.41

SOURCE: Glenn Lukos Associates, Inc., 2017a.

Pumpkin Patch Site

The northeast lower portion of the Pumpkin Patch site supports 0.55 acre of pickleweed mats. This alliance would be set back from the edge of development by 100 feet; therefore, impacts would be avoided. As such, there would be no direct or indirect impacts to wetland vegetation alliances or sensitive natural communities associated with work on the Pumpkin Patch site.

Grading would occur within the seasonal depressions that are vegetated by a mix of native and non-native species. Approximately 550 linear feet of pipeline and one existing oil well located in the northeast lower portion of the site will be removed and abandoned at this location in the same manner as discussed above on the Synergy Oil Field site. This well is located within disturbed areas and is surrounded by existing disturbed roads. The removal of the well will be done in accordance with DOGGR guidelines and will not impact the adjacent wetland vegetation. Once the well is removed and abandoned over time, the unvegetated disturbed pad surrounding it will be revegetated with a native upland seed mix comprising coyote brush, goldenbush, western ragweed, and bush sunflower. The pipelines and racks will be cut and removed/pulled by hand onto the earthen road network located adjacent to the pipelines. Plastic tarps will be laid beneath the pipelines prior to removal to collect any pieces of the pipe that may come apart during the removal process and prevent them from falling into the wetlands. After the pipes are placed on the roads, they may be further cut into smaller

segments and loaded onto trucks by small equipment such as a bobcat for disposal off site. No equipment would be driven onto vegetated wetland areas—only access on foot will occur within vegetated wetland areas. Based on the method of pipeline, rack, and tank removal, and the disturbed condition of the areas that would be used to facilitate the removals, no impacts to sensitive natural communities would be expected to occur.

LCWA Site

The LCWA site does not contain any sensitive natural communities. Construction at the LCWA site would result in direct impacts to disturbed/developed areas, mulefat scrub, annual non-native grassland, and ornamental vegetation. Therefore, no impacts to sensitive natural communities would occur.

Operation

As part of the proposed project, 39 oil wells from the Synergy Oil Field, one well from Pumpkin Patch site, 13 oil wells from the City Property site, and one well from Pumpkin Patch site would be removed and abandoned over a 20- to 40-year period. Based on the guidelines set forth for removal by DOGGR and the already disturbed areas that surround the wells that would be used to facilitate the removals, impacts to sensitive natural communities are not anticipated. Further, on the Pumpkin Patch site, a permanent fence or wall would be installed along the 100-foot setback to prevent indirect impacts to sensitive natural communities (i.e., *Frankenia salina* Herbaceous Alliance [Alkali heath marsh]) from occurring during the operational phase of the project; therefore, impacts would be less than significant.

Mitigation Measures: Mitigation Measure BIO-5 would apply.

Significance Determination: Less than Significant with Mitigation.

Impact BIO-4: The project would not have a substantial adverse effect on federally or state protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. (Less than Significant with Mitigation)

Construction

Direct impacts to jurisdictional waters and wetlands would occur on the Synergy Oil Field site and are described below. On the Pumpkin Patch site, all jurisdictional areas within the northeast area will be avoided and set back by a minimum of 100 feet from the proposed restoration and cleanup areas. As noted above, the Pumpkin Patch site also includes two seasonal depressions that the jurisdictional delineation did not identify as wetlands under the Clean Water Act or CWA and CCA; however, should this area be determined to be a CCA wetland, prior to any disturbance of this area, compliance with CCA Section 30233 would be required. No impacts to jurisdictional waters or wetlands would occur on the LCWA site since none are present. On the City Property site, proposed project activities would consist of installation of the sidewalk and the removal of pipelines which would have direct impacts to potential jurisdictional waters and wetlands. Removal of the pipelines and other oil field infrastructure would not impact jurisdictional waters or wetlands as they are located outside of jurisdictional resources. Because the proposed project is a wetland restoration project and would result in long-term restoration and enhancement of waters of the U.S./State, no compensatory mitigation is proposed. Permits and/or approvals from the USACE, RWQCB, CDFW, and the CCC would be required for impacts to resources under their jurisdiction.

Synergy Oil Field Site

Proposed project activities on the Synergy Oil Field site would impact waters of the U.S./State, CDFW jurisdiction, and coastal wetlands subject to CCA jurisdiction during re-establishment of coastal salt marsh habitat within the northern area. All impacts to jurisdictional areas associated with tidal channel grading, seawall berm and overlook terrace installation, berm/road removal, and on-site sidewalk grading are considered to be temporary given that the areas to be disturbed as part of these activities would either be revegetated or be converted from one aquatic resource type to another where post-project functions would remain the same or increase. Sheet pile installation is accounted for as a permanent impact to jurisdiction; however, the amount of jurisdiction to be impacted by this activity is extremely limited, totaling less than one-quarter of 1 percent of the entire northern area and is necessary to account for sea level rise estimations. During construction of the sheet pile wall, the jurisdictional areas would likely be avoided based on in-field placement of the wall to position it over existing disturbed areas. No other project components would impact waters of the U.S./State. Proposed activities in the southern area and off-site areas for sidewalks within the City’s right-of-way would not impact jurisdictional waters or wetlands. Impacts to jurisdictional resources would be avoided and minimized through implementation of Mitigation Measure BIO-10.

Impacts to USACE Jurisdiction—Section 10

Implementation of the proposed project will occur within 55.53 acres of Section 10 waters, which was mapped by elevation. Installation of the sheet pile wall will result in a permanent impact to mapped Section 10 waters; however, the sheet pile will occur primarily within upland disturbed roads and will not result in impacts to navigable waters.

Impacts to USACE/RWQCB Jurisdiction—Wetlands and Other Waters of the U.S./State

Of the 40.36 acres of waters of the U.S./State within the Synergy Oil Field site, implementation of the northern area restoration will result in permanent impacts to 0.002 acre and temporary impacts to 0.38 acre of wetlands, mudflats, and other waters of the U.S./State. **Table 3.3-21, Synergy Oil Field Site: Impacts to Waters of the U.S./State**, summarizes potential permanent and temporary impacts to waters of the U.S./State.

Table 3.3-21 Synergy Oil Field Site: Impacts to Waters of the U.S./State

Impact Type	Sheet Pile Wall	Visitors Center/ Trail	Transitional Wetland Grading	Tidal Channel Grading	Seawall Berm	Overlook Terrace	Berm/Road Removal	Sidewalk	Total
Permanent	0.002	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.002
Temporary	0.00	0.00	0.19	0.12	0.00	0.00	0.04	0.03	0.38

SOURCE: Glenn Lukos Associates, Inc., 2017a.

Impacts to CDFW Jurisdiction

Of the 17.12 acres of the Synergy Oil Field site within CDFW jurisdiction, implementation of the northern area restoration will not result in permanent impacts; however, temporary impacts will occur to 0.14 acre of Section 1602 jurisdiction (i.e., State-protected waters). **Table 3.3-22, Synergy Oil Field Site: Impacts to Section 1602 Jurisdiction**, summarizes potential temporary impacts to Section 1602 jurisdiction.

Table 3.3-22 Synergy Oil Field Site: Impacts to Section 1602 Jurisdiction

Impact Type	Sheet Pile Wall	Visitors Center/ Trail	Transitional Wetland Grading	Tidal Channel Grading	Seawall Berm	Overlook Terrace	Berm/Road Removal	Sidewalk	Total
Permanent	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Temporary	0.00	0.00	0.00	0.08	0.00	0.00	0.03	0.03	0.14

SOURCE: Glenn Lukos Associates, Inc., 2017a.

Impacts to CCA Wetlands

Of the 100.48 acres of coastal wetlands on the Synergy Oil Field site, implementation of the northern area restoration would result in permanent impacts to 0.03 acre and temporary impacts to 7.30 acres of wetlands as defined by the CCA. Of the 7.30 acres of temporary impacts to coastal wetlands, 2.16 acres of impacts would occur to unvegetated flats. Of the 0.03 acre of permanent impacts to coastal wetlands, 0.02 acre of impacts would occur on unvegetated flats. Construction of the sidewalk along PCH would also result in permanent impacts to 0.01 acre of wetlands as defined by the CCA. **Table 3.3-23, Synergy Oil Field Site: Impacts to Coastal Wetlands**, summarizes potential permanent and temporary impacts to coastal wetlands.

Table 3.3-23 Synergy Oil Field Site: Impacts to Coastal Wetlands

Impact Type	Sheet Pile Wall	Visitors Center/ Trail	Transitional Wetland Grading	Tidal Channel Grading	Seawall Berm	Overlook Terrace	Berm/Road Removal	Sidewalk	Total
Permanent	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.04
Temporary	0.00	0.00	1.18	3.54	2.06	0.04	0.45	0.03	7.30

SOURCE: Glenn Lukos Associates, Inc., 2017a.

Permanent and temporary impacts to wetlands and other waters of the U.S./State, including features subject to CDFW jurisdiction and coastal wetlands, would be restored in accordance with the Restoration Plan for the Upper Los Cerritos Wetlands Mitigation Bank. The habitat types proposed for restoration include coastal salt marsh and transitional wetland habitats, as well as establishment of upland scrub buffers as identified in **Table 3.3-24, Synergy Oil Field Site: Proposed Establishment, Reestablishment, Rehabilitation, and Enhancement for the Northern Area**. Because the permanent impacts to jurisdictional wetlands and waters identified in Table 3.3-21 through Table 3.3-23 are minimal in comparison to the 67.33 acres³⁵ of coastal salt marsh and transitional wetland habitats proposed for restoration, no compensatory mitigation is proposed; however, consistency with CCA Section 30233 may require feasible mitigation. Impacts to jurisdictional resources would be avoided and minimized through implementation of Mitigation Measure BIO-10.

³⁵ The final acreage of habitat types is subject to review by the regulatory agencies as part of the mitigation bank approval process.

Table 3.3-24 Synergy Oil Field Site: Proposed Establishment, Reestablishment, Rehabilitation, and Enhancement for the Northern Area

Habitat Type	Acreage ³⁶	Restoration Type	Jurisdiction
Intertidal			
Coastal Salt Marsh—Steamshovel Slough	31.66	Enhancement	USACE/RWQCB, CDFW, CCC
Coastal Saltmarsh—South of Slough	7.74	Rehabilitation	USACE/RWQCB, CCC
Coastal Salt Marsh—South of Slough	21.92	Reestablishment	USACE/RWQCB, CCC
Transitional Wetland	5.78	Reestablishment	USACE/RWQCB, CCC
Transitional Wetland	0.23	Enhancement	USACE/RWQCB, CDFW, CCC
Upland Scrub Buffer			
Saltbush/Goldenbush Establishment (Buffer)	7.75	Establishment	N/A
Mulefat Scrub Enhancement (Buffer)	0.37	Enhancement	N/A

City Property Site

Construction of the sidewalks within the City right-of-way along 2nd Street would result in permanent and temporary impacts to potential wetland waters of the U.S./State and wetlands as defined by the CCA. Construction of the 40-foot-wide pipeline corridor, including widening of the adjacent access roads, would result in permanent impacts to wetland waters of the U.S./State and wetlands as defined by the CCA. There would be no impacts to potential CDFW jurisdiction associated with these activities. It is possible that some areas within the pipeline corridor could be restored following construction; however, the impacts are assumed to be permanent at this time until a detailed construction plan showing the precise layout of the pipeline is prepared. **Table 3.3-25, Impacts to Jurisdictional Waters and Wetlands (acres) City Property Site and Off Site in City’s Right-of-Way**, summarizes potential permanent and temporary impacts to potential wetland waters of the U.S./State and wetlands as defined by the CCA. Any areas that are inadvertently or temporarily disturbed would be revegetated immediately upon completion of work. Impacts to jurisdictional resources would be avoided and minimized through implementation of Mitigation Measure BIO-10.

Table 3.3-25 Impacts to Jurisdictional Waters and Wetlands (acres) City Property Site and Off Site in City’s Right-of-Way

Jurisdiction	Pipeline Corridor	Sidewalk—Permanent	Sidewalk Grading—Temporary
Section 404 Wetlands & Coastal Wetlands	0.31	0.15	0.74
Total	0.31	0.15	0.74

SOURCE: Glenn Lukos Associates, Inc., 2017a.

Impacts to USACE and RWQCB Jurisdiction—Wetlands and Other Waters of the U.S./State

Of the 0.89 acre of wetland waters of the U.S./State on the City Property site, construction of the sidewalks within the City right-of-way along 2nd Street would result in permanent impacts to 0.15 acre and temporary impacts to 0.74 acre of potential waters of the U.S./State. Of the 21.04 acres of wetland waters of the

³⁶ The final acreage of habitat types is subject to review by the regulatory agencies as part of the mitigation bank approval process.

U.S./State, construction of the 40-foot-wide pipeline corridor, including widening of the adjacent access roads, would result in permanent impacts to 0.31 acre of potential waters of the U.S./State.

Impacts to CCA Wetlands

Of the 0.89 acre of coastal wetlands on the City's right-of-way, construction of the sidewalks within the City right-of-way along 2nd Street would result in permanent impacts to 0.15 acre and temporary impacts to 0.74 acre of potential wetlands as defined by the CCA. Construction of the 40-foot-wide pipeline corridor, including widening of the adjacent access roads, would result in permanent impacts to 0.31 acre of potential wetlands as defined by the CCA and would require feasible mitigation consistent with CCA Section 30233.

Pumpkin Patch Site

The project would not impact any of the 0.42 acre of wetland waters of the U.S. or 0.84 acre of CCA-defined wetland areas on the Pumpkin Patch site; however, if the seasonal depressions are determined to be CCA-defined wetlands, feasible mitigation consistent with Section 30233 would be required to ensure consistency with the CCA. The Pumpkin Patch site does not support CDFW jurisdictional areas and, therefore, would not impact CDFW jurisdictional areas. The other jurisdictional areas within the Pumpkin Patch site that occur within the northeast lower area which would be avoided and set back by a minimum of 100 feet from project work areas. Therefore, no impacts would occur to these jurisdictional areas.

LCWA Site

No impacts to jurisdictional resources would occur on the LCWA site, since no jurisdiction waters or wetlands exists on the site. Therefore, no impacts would occur.

Operation

As part of the proposed project, 39 oil wells from the Synergy Oil Field site and 13 oil wells from the City Property site would be removed and abandoned over time. Based on the guidelines set forth for removal by DOGGR and the already disturbed areas that surround the wells that would be used to facilitate the removals, impacts to jurisdictional wetlands or waters are not anticipated; however, in the event that inadvertent and temporary impacts to jurisdictional wetlands or waters occur, implementation of Mitigation Measure BIO-10 would reduce potentially significant impacts to a less-than-significant level. Any loss of wetland habitat function would be a significant impact and Mitigation Measure BIO-11 would require demonstration of no net loss of aquatic resource functions and demonstrate a substantial increase in wetland functions and values throughout the entire site.

By restoring tidal connection to a larger part of the site, the project could impact wetland habitats by allowing rising sea levels to enter and flood the marsh. Sea level rise modeling (M&N 2017) shows that intertidal wetland habitats would initially increase from 57.1 acres to 63.4 acres with 2 feet of sea level rise. With 5.5 feet of sea level rise, intertidal wetland habitats would decrease to 41.6 acres, according to the modeling results; however, this is still more than the existing 35.4 acres of jurisdictional wetlands on site. Additionally, the current state estimates predict that 5.5 feet of sea level rise will not occur until the year 2100 or later, so it is likely that the site would have at least 41.6 acres of wetlands through the year 2100 based on the best available science. Therefore, loss of wetland habitat due to sea level rise would be less than significant.

Mitigation Measures

Mitigation Measure BIO-10: Avoid or Minimize Impacts to Aquatic Habitat. Temporary disturbance to, and permanent loss of, all aquatic habitat shall be avoided to the maximum extent feasible. All temporary staging areas and access roads, if necessary, shall be located away from aquatic habitats to the extent practicable, and aquatic habitats abutting impacted areas shall be clearly demarcated with fencing, rope, or signage to avoid inadvertent disturbance during restoration activities and operations. As detailed grading plans are prepared, they shall be designed to avoid temporary and permanent impacts to aquatic habitats to the extent practicable.

Mitigation Measure BIO-11: Post-Restoration Functional Lift Assessments of Wetland Waters of the U.S./State and Coastal Wetlands. Upon completion of restoration activities, the project shall demonstrate a no net loss of aquatic resource functions and demonstrate a substantial increase in wetland functions and values throughout the entire site. An assessment of habitat functions, such as biotic structure and hydrology, shall be conducted as part of the project's monitoring and reporting program outlined in the Final Restoration Plan for the Upper Los Cerritos Wetlands Mitigation Bank, so that these agencies can verify that the functional values have been achieved and/or provide measures that need to be implemented to meet the appropriate level of functionality.

Significance Determination: Less than Significant with Mitigation.

Impact BIO-5: The project would not 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. (Less than Significant)

There are no wildlife movement corridors within or adjacent to the project site. Terrestrial wildlife movement within the project site is primarily localized due to the surrounding development, including PCH and Studebaker Road. The Alamitos Bay and Los Cerritos Channel could provide limited movement for marine fish, mammals, or reptiles species (i.e., green sea turtle) to move into and out of the project site via Steamshovel Slough; however, Steamshovel Slough lacks an outlet and does not have connectivity to other water bodies allowing it to provide a movement corridor for marine animals to move through the project site. Further, Steamshovel Slough would be avoided during construction activities and no in-water work would occur. No impacts would be expected.

Mitigation Measures: None required.

Significance Determination: Less than Significant.

Impact BIO-6: The project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. (Less than Significant)

Tree Protection

Potential impacts to street trees protected by the City of Long Beach's Tree Maintenance Policy could include tree removal or trimming. Tree removal would result in a permanent impact, while trimming would be considered a temporary impact. A permit from the City of Long Beach Department of Public Works would be required prior to the removal of any street trees. Trees that are removed must be replaced with an approved 15-gallon tree to be planted in an appropriate area. Therefore, impacts to tree protection policies would be less than significant.

Potential ESHA Pursuant to California Coastal Act

The proposed project is a restoration project whose implementation would require work in potential ESHA. As such, there is no other way to accomplish the project purpose without impacting potential ESHA. Pursuant to CCA Section 30240 of the CCA, impacts to ESHA are generally limited to activities such as habitat restoration as noted by the Coastal Commission Staff (CCC as cited in GLA 2017d):

The Coastal Act establishes a high standard for protection of areas that are identified as environmentally sensitive. Only resource-dependent uses, such as habitat restoration, are allowed within an environmentally sensitive area (ESHA). Final determinations regarding ESHA will be made by the CCC.

Synergy Oil Field Site

Special-Status Wildlife

American Peregrine Falcon

Steamshovel Slough represents the most likely foraging area for the American peregrine falcon, with potential foraging areas that could be potential ESHA coincident with the foraging areas shown for the California least tern and California brown pelican. Project grading would have minimal impact totaling 0.08 acre of temporary impacts to the tidal channel that is potential foraging habitat for the peregrine falcon. These impacts, needed to implement the habitat restoration, can be allowed under the CCA, as restoration is a use dependent on the resource pursuant to Section 30240 and Section 30233(a)(b). Following completion of grading the potential foraging area for the peregrine falcon, the habitat would be expanded due to the addition of saltmarsh and mudflats used by potential prey for this species.

Belding's Savannah Sparrow

Figure 3.3-8 depicts occupied habitat for Belding's savannah sparrow based on focused surveys conducted in 2017 on the Synergy Oil Field. Approximately 0.003 acre of wetland habitat will be permanently impacted by the wetlands restoration component of the project associated with installation of a sheet pile wall, which is a necessary component of the restoration in order to protect adjacent areas from tidal flooding with the introduction of tidal waters to areas that currently lack tidal influence.

Temporary impacts associated with transitional wetland grading, tidal channel grading, construction of a berm and overlook terrace, and berm/road removal would occur to 3.67 acres of special-status habitats including parish's glasswort patches, pickleweed mats, and California cordgrass marsh used by Belding's savannah sparrow will be necessary to implement the proposed habitat restoration. These temporary impacts associated with the proposed habitat restoration can be allowed under the Coastal Act, and importantly, would result in a large net increase in suitable habitat for the Belding's savannah sparrow both in the near-term and in the longer-term under various sea level rise scenarios.

California Least Tern

Project grading would have minimal impact totaling 0.08 acre of temporary impacts to the tidal channel that is potential foraging habitat for the California least tern. These impacts, needed to implement the restoration, can be allowed under the CCA for the same habitat restoration purposes described above and following completion of grading the potential foraging area for the California least tern would be expanded due to the addition of tidal channels.

Pacific Green Sea Turtle

Project grading would not impact any areas that could potentially be determined to be ESHA for the Pacific Green Sea Turtle.

California Brown Pelican

Project grading would have minimal impact totaling 0.08 acre of temporary impacts to the tidal channel that is potential foraging habitat for the California brown pelican. These impacts, needed to implement the restoration can be an allowed use under the CCA as discussed above and following completion of grading the potential foraging area for the California brown pelican would be expanded due to the addition of tidal channels.

Western Snowy Plover

Potential foraging habitat for the California western snowy plover that could be determined to be ESHA is coincident with areas used for foraging by the California least tern. There are no potential nesting areas on the site. Project grading would have minimal impact totaling 0.08 acre of temporary impacts to tidal channel that is potential foraging habitat for the snowy plover.

These impacts, needed to implement the restoration can be allowed under the CCA as habitat restoration is a resource-dependent use and following completion of grading the potential foraging area for the snowy plover would be expanded due to the addition of salt marsh and tidal channels.

White-Tailed Kite (Nesting Only)

Areas of Steamshovel Slough and areas south of the berm within the proposed Mitigation Bank Area exhibit potential for foraging white-tailed kite; however, these areas do not contain trees that exhibit potential for nesting; therefore, there are no areas of potential ESHA affected by the project.

Mudflat Tiger Beetle

This species could potentially occur in Steamshovel Slough. Project grading would have minimal impact totaling 0.08 acre of temporary impacts to the tidal channel that is potential foraging habitat for the mudflat tiger beetle. Impacts needed to implement the restoration can be an allowed use under the CCA and following completion of grading the potential foraging area for this species would be expanded due to the addition of tidal channels.

Salt Marsh Wandering Skipper

This species potentially occurs in Steamshovel Slough and limited areas within areas to be graded for wetland creation. Project grading would have minimal impact to suitable saltgrass that is potential foraging habitat for the salt marsh wandering skipper. Impacts needed to implement the restoration can be an allowed use under the CCA and following completion of grading the potential foraging area for this species would be expanded due to the addition of tidal channels.

- **Sandy beach tiger beetle**—Potentially occurs in Steamshovel Slough in areas not affected by project grading.
- **Senile tiger beetle**—Potentially occurs in Steamshovel Slough in areas not affected by project grading.
- **Western beach tiger beetle**—Potentially occurs in Steamshovel Slough. Project grading would have minimal impact totaling 0.08 acre of temporary impacts to the tidal channel that is potential foraging

habitat for the western beach tiger beetle. Impacts needed to implement the restoration can be an allowed use under the CCA and following completion of grading the potential foraging area for this species would be expanded due to the addition of tidal channels.

- **Western tidal-flat tiger beetle**—Potentially occurs in Steamshovel Slough in areas not affected by project grading.
- **Northern harrier (nesting)**—Areas of Steamshovel Slough and areas south of the berm within the proposed Mitigation Bank Area exhibit potential for foraging northern harrier; however, these areas do not contain potential for nesting; therefore, there are no areas of potential ESHA affected by the project.

Special-Status Plants

Figure 3.3-2a depicts the locations of three special-status plants, including southern tarplant, estuary seablite, and woolly seablite.

Southern Tarplant

The Synergy Oil Field site contains a regionally important population of southern tarplant, portions of which exhibit characteristics that could potentially be considered ESHA. It is important to note that many of the areas where southern tarplant occurs are highly disturbed with the plants growing through gravel, cracks in concrete slabs, pipeline storage areas, and similarly disturbed areas that otherwise lack native habitats. In other areas, southern tarplant is associated with native vegetation alliances including areas that support common pickleweed, saltgrass, and alkali heath. As such, ESHA determinations must be made based on site-specific conditions.

The project results in impacts to southern tarplant in three locations: (1) tidal channel grading within the eastern edge of the coastal salt marsh reestablishment area; (2) berm installation associated with the wetland reestablishment; and (3) relocation of the visitor center, which will include removal of existing oil tanks and associated gravel occupied by southern tarplant.

The southern tarplant to be affected by grading of the tidal channel is associated with areas of disturbed pickleweed that includes a substantial component of the non-native small-flowered ice plant. Given the extent of the occurrence and the number of southern tarplant in this area (approximately 6,000 in 2015), this area could potentially be determined to be ESHA; however, any impacts that would occur are associated with grading necessary for reestablishment of the tidal connection associated with the wetland reestablishment; therefore, the impacts could be allowed.

Similarly, impacts to southern tarplant associated with construction of the berm occurs in an area of alkaline soils that also support a mix of saltgrass and non-native grasses. This area could potentially be determined to be ESHA; however, since the impacts associated with creating this berm are necessary for reestablishment of the tidal connection associated with the wetland reestablishment, the impacts could be permissible.

The southern tarplant surrounding the tank farm and adjacent areas is growing through gravel and other disturbed substrates that do not support native vegetation characteristic of southern tarplant habitat. This area would not likely be determined to be ESHA due to adjacent development and disrupting activities associated with oil production. In addition, it is possible that this area would need to undergo soil remediation following the removal of the tank farm. A Phase II Environmental Site Assessment (ESA) is being prepared and will address the need, if any, for remediation in this area.

Estuary Seablite

As depicted on Figure 3.3-2a, Estuary seablite only occurs within the wetland alliances noted below, all of which have a CNDDDB Rarity Ranking of S3 or lower and are thus likely to be considered potential ESHA. The project has been designed to avoid estuary seablite. Nevertheless, should estuary seablite establish in the impact areas and impacts to a few individuals occur, it would occur during grading necessary to establish tidal connections needed for the wetland reestablishment and would be allowable under the CCA. It is also important to note that estuary seablite is included in the plant palette and there will be a substantial net increase in this species with the wetland reestablishment program.

In addition to the two CRPR List 1B plants discussed above, woolly seablite, a CRPR List 4 plant, occurs within Steamshovel Slough within an area that would be considered ESHA; however, this area would not be affected by project grading or otherwise impacted by the project.

Sensitive Natural Communities

As summarized in **Table 3.3-26, Temporary Impacts to Potential Environmentally Sensitive Habitat Areas (ESHA) Associated with Grading and Construction of Restoration Areas (acres) Synergy Oil Field—Phase 1**, there would be temporary impacts to 7.26 acres of potential ESHA, including sensitive natural communities, necessary for grading needed to establish expanded tidal areas as a component of the wetland reestablishment and rehabilitation. As habitat restoration could be considered a use dependent on those resources, as set forth in CCA Section 30240, temporary impacts could be determined to be consistent with the CCA.

Table 3.3-26 Temporary Impacts to Potential Environmentally Sensitive Habitat Areas (ESHA) Associated with Grading and Construction of Restoration Areas (acres) Synergy Oil Field—Phase 1

Wetland Alliances	Transitional Wetland Grading	Tidal Channel Grading	Seawall Berm	Overlook Terrace	Berm/Road Removal	Sidewalk Grading
Alkali Heath Flats (Non-Tidal)	0.13	0.00	0.00	0.00	0.00	0.00
California Cordgrass Marsh	0.00	0.00	0.00	0.00	0.01	0.00
Mudflats	0.00	0.02	0.00	0.00	0.00	0.00
Parish's Glasswort Patches	0.09	1.14	0.58	0.00	0.35	0.00
Pickleweed Mats	0.67	0.47	0.25	0.04	0.07	0.00
Saltgrass Flats	0.00	0.04	0.85	0.00	0.00	0.00
Shoregrass Flats	0.29	0.00	0.00	0.00	0.00	0.00
Unvegetated Flats	0.00	1.78	0.38	0.00	0.00	0.00
Tidal Channel	0.00	0.08	0.00	0.00	0.02	0.00
<i>Wetland Alliances Subtotal by Category</i>	<i>1.18</i>	<i>3.53</i>	<i>2.06</i>	<i>0.04</i>	<i>0.45</i>	<i>0.00</i>
Total			7.26			

SOURCE: Glenn Lukos Associates, Inc., 2017d.

City Property Site

Special-Status Wildlife

The City Property site does not support habitat for American peregrine falcon, Belding's savannah sparrow, California least tern, California green sea turtle, or the California brown pelican, western snowy plover or white-tailed kite and as such there would be no ESHA associated with these species and no potential impacts to ESHA associated with these species.

Special-Status Plants

As depicted on Figure 3.3-2b, limited areas of the City Property site support a scattered small population of southern tarplant that occurs within areas of native alkali meadow, mulefat scrub and coastal brackish marsh, which could potentially be considered ESHA. Similarly, other areas occupied by the southern tarplant occur in highly disturbed areas such as the gravel areas around existing an existing tank farm and other oil field infrastructure that would likely not be considered ESHA due to adjacent development and disrupting activities associated with oil production. As depicted on Figure 3.3-2b, the proposed pipeline would traverse the area currently occupied by the existing oil tank. As part of the project, the tank farm would be removed and it is possible that this area would need to undergo soil remediation following removal. A Phase II ESA is being prepared and will address the need, if any, for remediation in this area. Nonetheless, the southern tarplant in this location would likely not be considered ESHA due to the limited numbers and the highly-disturbed character of the areas around the oil tank and associated infrastructure.

There is no potential habitat for the estuary seablite on the City Property site.

Sensitive Natural Communities

The City Property site includes one special-status vegetation alliance, pickleweed mats, which corresponds to southern coastal saltmarsh. The area is non-tidal significantly reducing the habitat values; nevertheless, the area could be determined to be ESHA; however, the proposed pipeline that would traverse the site fully avoids this alliance.

Pumpkin Patch Site

The Pumpkin Patch site includes an upper (in elevation) area, which has been used historically and continues to be used as the location for seasonal commercial activities and associated staging and parking, specifically for a pumpkin patch leading up to Halloween and a Christmas tree farm leading up to Christmas. The parcel also includes a lower in elevation area to the north that includes oil operations and associated roads and pads as well as areas of non-tidal pickleweed mats that could potentially be determined to be ESHA; however, there are no impacts proposed for the lower area; therefore, no potential impacts to potential ESHA.

Special-Status Wildlife

The Pumpkin Patch site does not support habitat for American Peregrine falcon, Belding's savannah sparrow, California least tern, California green sea turtle, or the California brown pelican, western snowy plover, or the white-tailed kite and as such there would be no ESHA associated with these species and no potential impacts to ESHA associated with these species.

GLA has completed a 2-year protocol of focused surveys for listed fairy shrimp, and the surveys have identified only the common versatile fairy shrimp from a seasonal ponding feature at the northeast corner of the site. No listed fairy shrimp occur on the site.

There are no other special-status species or habitat with potential to occur on the Pumpkin Patch site; therefore, no other potential impacts to potential ESHA.

Special-Status Plants

As depicted on Figure 3.3-2c, the upper portion of the Pumpkin Patch site supports a small isolated patch of southern tarplant that occurs within areas typically used for parking when the site is occupied by the pumpkin patch and Christmas tree lot. This area would not likely be considered ESHA. Southern tarplant is not restricted to a single site; rather, this species remains distributed from south Orange County into Long Beach including San Juan Capistrano, Newport Beach, Irvine, Huntington Beach, Seal Beach, and Long Beach, including three of the four individual sites within the project area.

There is no potential habitat for the estuary seablite on the Pumpkin Patch site. Similarly, there are no special-status vegetation alliances on the Pumpkin Patch site that exhibit potential for ESHA that would be affected by the project; therefore, no potential impacts to potential ESHA.

LCWA Site

The LCWA site does not contain any habitats capable of supporting special-status plants or animals and does not support and native vegetation alliances with a Rarity Ranking of S3 or lower; therefore, the site does not contain any areas that could potentially be considered ESHA.

Mitigation Measures: None required.

Significance Determination: Less than Significant.

3.3.4.4 Cumulative Impacts

The geographic scope for potential cumulative biological impacts consists of the project component locations and the immediate vicinity. The timeframe during which the proposed project could contribute to cumulative biological effects includes the construction and operations phases.

Cumulative Impacts during Project Construction

The reasonably foreseeable future projects in the cumulative study area are primarily located within urban, developed areas with the exception of the Ballona Wetland Restoration Project³⁷ and single-family homes and hotel rooms proposed at 1st Street and Marina Drive in Seal Beach (Map No. 5).

Similar to the proposed project, the Ballona Wetland Restoration Project would restore, enhance, and create estuarine and associated habitats, as well as provide long-term benefits for special-status species such as Belding's savannah sparrow. Construction-related impacts to sensitive biological resources associated with the

³⁷ The Ballona Wetland Restoration Project is not included in the cumulative projects list, but is evaluated in the cumulative analysis for biological resources since this project supports similar habitats and some of the same special-status species as the proposed project. The Notice of Preparation of the EIR has been issued for the Ballona Wetland Restoration Project.

Ballona Wetland Restoration Project would primarily be temporary, and would be mitigated to a less-than-significant level. The majority of the proposed project's impacts to sensitive biological resources would be temporary, and permanent impacts have largely been avoided by design or are very limited in extent. Therefore, the proposed project's contribution to cumulative impacts during construction would not be cumulatively considerable.

The single-family homes and hotels rooms in Seal Beach are proposed on a large, vacant lot that could result in significant impacts to special-status wildlife species such as burrowing owl, as well as special-status plants. In addition, sensitive natural communities could also be present (i.e., remnant wetlands); therefore, development of this parcel could result in significant impacts to protected biological resources; however, construction-related impacts associated with restoration activities would be short-term, as the majority of wetland habitats on the project site would be avoided by design and available for wildlife to utilize. Therefore, cumulative impacts during construction would not be cumulatively considerable.

Cumulative Impacts during Project Operations

Upon completion of the proposed project and any nearby cumulative projects, including the Ballona Wetland Restoration Project and Bolsa Chica Lowlands Restoration Project, each project would be required to comply with federal and state regulations, as well as applicable municipal codes, pertaining to the protection of biological resources. Further, in conjunction with the Ballona and Bolsa Chica wetland restoration projects, the proposed project would have an overall net beneficial effect upon coastal wetlands and other sensitive biological resources. Therefore, the cumulative impacts during operations would not be cumulatively considerable.

3.3.5 References

- Baldwin, Bruce G., et al. (eds.). 2012. *The Jepson Manual, Vascular Plants of California*. University of California Press, p. 1471.
- California Department of Fish and Game (CDFG). 2009. *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities*, November 24.
- . 2010. List of Vegetation Alliances and Associations. Vegetation Classification and Mapping Program, California Department of Fish and Game. Sacramento, CA. September 2010.
<https://www.wildlife.ca.gov/Data/VegCAMP/Natural-Communities/List>, accessed May 19, 2017.
- California Department of Fish and Wildlife (CDFW). 2017. Metadata Description of CNDDDB Fields.
https://map.dfg.ca.gov/rarefind/view/RF_FieldDescriptions.htm#STATE_RANK, accessed May 31, 2017.
- California Department of Fish and Wildlife, Natural Diversity Database (CNDDDB). 2017a. Special Vascular Plants, Bryophytes, and Lichens List. Quarterly publication. 126 pp., April.
- . 2017b. Special Animals List. Periodic publication, April.
- California Native Plant Society (CNPS). 2010. California Native Plant Society's Online Inventory of Rare and Endangered Vascular Plants of California. V7-09b. <http://cnps.web.aplus.net/cgi-bifn/inv/inventory.cgi>.
- City of Long Beach. 2017. Approved Street Tree List 2012. <http://www.longbeach.gov/pw/services/street-trees/>, accessed June 1, 2017.
- Glenn Lukos Associates, Inc. (GLA). 2017a. *Biological Technical Report for the Los Cerritos Wetlands Oil Consolidation and Restoration Project*, June 22.
- . 2017b. *Jurisdictional Delineation for the Los Cerritos Wetlands Oil Consolidation and Restoration Project*, June 22.

- . 2017c. *Restoration Plan for the Upper Los Cerritos Wetlands Mitigation Bank*, March 1.
- . 2017d. *Technical Memorandum—Impacts to Areas that Potentially Meet the California Coastal Act Definition for Environmentally Sensitive Habitat Areas (ESHA) Associated with the Los Cerritos Wetlands Oil Consolidation and Restoration Project, Long Beach, California*, May 3, 2017, revised June 22, 2017.
- . 2017e. *Technical Memorandum—Belding’s Savannah Sparrow Surveys for 76.5-Acre Proposed Mitigation Bank at Synergy Oil Field, Long Beach, California*, June 7.
- Moffatt & Nichol (M&N). 2017. *Los Cerritos Wetlands Restoration and Oil Consolidation Project, Beach Oil Minerals Partners, Updated Sea Level Rise Impact Analyses*. Prepared for Glenn Lukos Associates, June.
- Placeworks and VCS Environmental. 2016. *Biological Resources Assessment and Wetland Delineation: Southeast Area Development and Improvement Plan*. Prepared for the City of Long Beach.
- Sawyer, John O., Todd Keeler-Wolf, and Julie Evens. 2009. *A Manual of California Vegetation, Second Edition*. California Native Plant Society.
- Tidal Influence. 2012. *Los Cerritos Wetlands Habitat Assessment Report: Habitat Types and Special Status Species*.

[THIS PAGE INTENTIONALLY LEFT BLANK]