4.2 BIOLOGICAL RESOURCES

This section of the EIR evaluates anticipated impacts to biological resources resulting from implementation of the proposed project. It is based on a Biological Resources Report prepared for the project (RECON Environmental, Inc. [RECON] 2019), which is included as Appendix C of this EIR.

4.2.1 Existing Conditions

A biological survey was conducted on January 23, 2018 to map the extent of vegetation communities and land cover types; perform a general botanical and zoological species survey, assess the presence of suitable habitat for sensitive plant and animal species; and determine the presence of jurisdictional areas (RECON 2019). The biological survey covered the approximately 12.36-acre project site and immediately adjacent off-site areas along Alvarado Creek and the Alvarado Road site frontage, totaling approximately 13.66 acres that is collectively referred to as the "biological survey area."

The biological survey area is located within a developed urban area that includes a recreational vehicle resort facility, the channelized Alvarado Creek, and Alvarado Road. Topography is relatively level at approximately 400 feet AMSL.

4.2.1.1 Soils

The biological survey area includes three soil types mapped by the U.S. Department of Agriculture, including Riverwash; Redding-Urban land complex, 2 to 9 percent; and Redding-Urban land complex, 9 to 30 percent. Riverwash soils occur in intermittent stream channels and typically consist of sand, gravel, or cobble. Riverwash soil is rapidly permeable and excessively drained and may be devoid of vegetation in many places or may contain sparse patches of shrubs and forbs. Redding-Urban land complex, 2 to 9 percent and Redding-Urban land complex, 9 to 30 percent occur on marine terraces, at elevations of 200 to 500 feet. The soils in these areas has been altered through cut and fill operations and leveling for building sites. Prior to cut and fill operations and leveling, the slope was 2 to 9 percent or 9 to 30 percent, respectively.

4.2.1.2 Vegetation Communities/Land Cover Types

The project site supports two vegetation communities and three land cover types, including freshwater marsh, willow woodland, disturbed land, urban/developed land, and concrete channel. The approximate acreages of these vegetation communities and land cover types are presented in Table 4.2-1, *Existing Vegetation Communities and Land Cover Types Within the Biological Survey Area*, and their locations within the biological survey area are shown on (Figure 4.2-1, *Vegetation Communities and Land Cover Types within the Biological Survey Area*).

Table 4.2-1
EXISTING VEGETATION COMMUNITIES AND LAND COVER TYPES WITHIN
THE BIOLOGICAL SURVEY AREA

Vegetation Community/ Land Cover Type	Existing On Site (acres)	Existing Off Site (acres)	Survey Area Total (acres)
Freshwater Marsh	0.70	0.43	1.13
Willow Woodland	0.28	0.47	0.75
Disturbed Land	0.23	0.03	0.26
Urban/Developed Land	10.87	0.36	11.23
Concrete Channel	0.28	0.01	0.29
TOTAL	12.36	1.30	13.66

Source: RECON 2019

Freshwater Marsh

Freshwater marsh consists of perennial emergent monocots such as cattails and bulrush that typically form a closed canopy that is 13 to 16 feet tall. Freshwater marsh vegetation occurs in open bodies of fresh water with little current flow, such as ponds, and to a lesser extent around seeps and springs. Freshwater marsh communities, as with all wetland habitats, have been greatly reduced throughout their entire range and continue to decline as a result of urbanization.

Within the biological survey area, freshwater marsh occurs along Alvarado Creek (Figure 4.2-1) and is dominated by broad-leaved cattail (*Typha latifolia*), southern bulrush (*Scirpus californica*), and Olney's three-square bulrush (*Schoenoplectus americanus*). Other plant species found in the freshwater marsh at this site include saplings of Mexican fan palm (*Washingtonia robusta*), Brazilian peppertree (*Schinus terebinthifolius*), and scattered native trees of red willow (*Salix laevigata*) and Goodding's black willow (*Salix gooddingii*). Freshwater marsh covers approximately 0.70 acre of the project site, and approximately 0.43 acre adjacent to the project site.

Willow Woodland

Willow woodland is a riparian community dominated by broad-leaved winter-deciduous willow trees. This vegetation community is typically found along major drainages but also occurs in smaller drainages. The density of the willows typically prevents a dense understory of smaller plants from growing. The representative species typically grows in loose, sandy, or fine gravelly alluvium deposited near stream channels during flood flows. This community requires repeated flooding to prevent succession to community dominated by sycamores and/or cottonwoods.

Within the biological survey area, willow woodland occurs along Alvarado Creek on the southwestern portion of the site (Figure 4.2-1). The willow woodland on-site is composed of patches of trees and saplings of black willow, red willow, and shrubs of mule fat (*Baccharis salicifolia*). The understory of the willow woodland includes the same freshwater marsh species previously noted above. Scattered non-native species found in this section of the creek include castor bean (*Ricinus communis*), Mexican fan palm, and Brazilian peppertree. Willow woodland covers approximately 0.28 acre of the project site, and approximately 0.47 acre adjacent to the site.

Disturbed Land

Disturbed land is present within the biological survey area mostly south of and east of Alvarado Creek in the eastern portion of the biological survey area. The disturbed habitat occurs on a slope below a concrete wall associated with the MTS Trolley Line down to Alvarado Creek and along the eastern bank of the creek (Figure 4.2-1). The slope supports a cover of ivy (*Hedera helix*), olive tree (*Olea europa*), fennel (*Foeniculum vulagre*), and non-native grasses. A small area of disturbed land also occurs in the western portion of the biological survey area on the south side of Alvarado Creek. Disturbed land covers approximately 0.23 acre of the project site, and approximately 0.03 acre adjacent to the project site.

Urban/Developed Land

The majority of the site consists of a developed recreational vehicle facility with ornamental vegetation consisting of maintained non-native landscaped areas (Figure 4.2-1). These ornamental plants included Washington palm (*Washingtonia robusta*), Brazilian peppertree, Peruvian peppertree (*Schinus molle*), American century plant (*Agave americana*), and bird of paradise flower. Urban/developed land covers approximately 10.87 acres of the project site, and approximately 0.36 acre adjacent to the site.

Concrete Channel

Portions of Alvarado Creek at the box culvert crossing at Alvarado Road and the box culvert inlet near the trolley station at the west end of the project site have been covered in concrete to control erosion and stabilize the creek bed (Figure 4.2-1). In addition, portions of the northern bank of the creek are also covered in concrete to stabilize the bank from erosive forces. Concrete channel covers approximately 0.28 acre of the project site, and approximately 0.01 acre adjacent to the project site.

4.2.1.3 Observed Plant Species

A total of 41 plant species were observed within the biological survey area during the biological survey. Given the highly developed nature of the project site, most of the plants observed (29 of the 41) were non-native species. The 12 native species were mostly associated with freshwater marsh or willow woodland habitat, such as Olney's three-square bulrush (*Schoenoplectus americanus*), southern bulrush (*Schoenoplectus californicus*), broad-leaved cattail (*Typha latifolio*), mule fat – seep willow (*Baccharis salicifolia*), water cress (*Nasturtium offininale*), Goodding's black willow (*Salix gooddingii*), and arroyo willow (*Salix lasiolepsis*). A complete list of observed wildlife species is contained in Attachment 1 of the Biological Resources Report (RECON 2019), which is included as Appendix C of this EIR.

4.2.1.4 Observed Wildlife Species

A total of 18 wildlife species were detected within the biological survey area during the biological survey through either observation or vocalization. Although Alvarado Creek passes through the project site, the number and variety of wildlife species detected during the survey was generally low. This is likely due to the noise from the nearby I-8 and MTS Trolley Line bordering the site. The species detected during the field survey included invertebrates such as honey bee (*Apis mellifera*) and mourning cloak (*Nymphalis antiopa*); one species of amphibian, the southern California toad (*Anaxyrus boreas halophilus*); and birds such as the red-shouldered hawk (*Buteo lineatus elegans*), mourning dove (*Zenaida macroura marginella*), Anna's hummingbird (*Calypte anna*), Allen's hummingbird (*Selasphorus sasin*), Nuttall's woodpecker (*Picoides nuttallii*), black phoebe (*Sayornis nigricans semiatra*), American crow (*Corvus brachyrhynchos hesperis*), bushtit (*Psaltriparus minimus melanurus*), northern mockingbird (*Mimus*

polyglottos polyglottos), yellow-rumped warbler (Setophaga coronata), common yellowthroat (Geothlypis trichas), song sparrow (Melospiza melodia), California towhee (Melozone crissalis), lesser goldfinch (Spinus psaltria hesperophilus), and house finch (Haemorhous mexicanus frontalis). A complete list of observed wildlife species is contained in Attachment 2 of the Biological Resources Report (RECON 2019), which is included as Appendix C of this EIR.

4.2.1.5 Sensitive Biological Resources

The Biological Resources Report classified species as candidate, sensitive, or of special concern if they met at least one of the following three criteria:

- Species covered under the City of La Mesa Subarea Habitat Conservation Plan (HCP)/Natural Community Conservation Plan (NCCP);
- Species listed by state or federal agencies as threatened or endangered, or were proposed for listing; or
- Species listed on California Rare Plant Rank (CRPR) 1B (considered endangered throughout their range) or CRPR 2 (considered endangered in California but are more common in other regions) of the California Native Plant Society (CNPS) Inventory of Rare and Endangered Vascular Plants of California. Noteworthy plant species are considered those on the CRPR 3 (more information about the plant's distribution and rarity needed) and CRPR 4 (plants of limited distribution).

Sensitive Vegetation Communities

Two sensitive vegetation communities occur within the survey area, including freshwater marsh and willow woodland. As stated in Section 4.2.1.1, freshwater marsh covers approximately 0.70 acre of the project site and approximately 0.43 acre adjacent to the project site, and willow woodland covers approximately 0.28 acre of the project site and approximately 0.47 acre adjacent to the site. The locations of these two sensitive vegetation communities are shown on Figure 4.2-1.

Sensitive Plant Species

Based on a search of CNPS and California Natural Diversity Data Base (CNDDB) records, there are nine sensitive plant species that may have the potential to occur in the project vicinity as identified in Table 4.2-2, Sensitive Plant Species with Potential to Occur in the Biological Survey Area. As shown in Table 4.2-2, none are expected to occur within the survey area. No sensitive plant species were observed during the biological survey.

Table 4.2-2
SENSITIVE PLANT SPECIES WITH POTENTIAL TO OCCUR IN BIOLOGICAL SURVEY AREA

	Listing Status		
Species	Federal State CNPS City	Lifeform and Bloom Period	Potential to Occur/Preferred Habitat/Range
San Diego viguiera (Bahaiopsis laciniata)	 4.3 	Perennial shrub February to June	Not Expected . Occurs in coastal sage scrub at elevations below 2,500 feet AMSL. Suitable habitat is not present on site.
San Diego marsh elder (Iva hayesiana)	 2B.2 	Perennial herb April to September	Not Expected. Occurs in marshes and swamps, playas, and riparian areas at elevations below 1,700 feet AMSL. Riparian habitat is present along Alvarado Creek, but species was not observed.
San Diego barrel cactus (Ferocactus viridescens)	 2B.1 	Perennial stem succulent May to June	Not Expected. Occurs in chaparral, coastal sage scrub, valley and foothill grasslands, and vernal pools at elevations below 1,500 feet AMSL. Suitable habitat is not present on site.
Nuttall's scrub oak (Quercus dumosa)	 1B.1 	Perennial evergreen shrub February to March	Not Expected. Occurs in closed-cone coniferous forest, coastal chaparral, coastal sage scrub at elevations below 1,300 feet AMSL. Suitable habitat is not present on site.
San Diego thorn-mint (Acanthomintha ilicifolia)	FT CE 1B.1 MSCP Covered NE	Annual herb April to June	Not Expected . Occurs in chaparral, coastal sage scrub, and grasslands at elevations below 3,200 feet AMSL. Suitable habitat is not present on site.
willowy manardella (Monardella viminea)	FE CE 1B.1 MSCP Covered	Perennial herb June to August	Not Expected. Occurs in closed-cone coniferous forest, coastal chaparral, coastal sage scrub, riparian scrub, riparian woodlands, and sandy seasonal dry washes at elevations between 160 and 740 feet AMSL. Suitable habitat is not present on site.
California adolphia (Adolphia californica)	 2B.1 	Perennial deciduous shrub December to May	Not Expected. Occurs in Diegan coastal sage scrub and chaparral at elevations between 100 and 2,500 feet AMSL. Suitable habitat is not present on site.
southwestern spiny rush (Juncus acutus ssp. leopoldii)	 4.2 NE	Perennial herb May to June	Not Expected. Occurs in coastal dunes, meadows and seeps, coastal salt marsh, and riparian areas at elevations below 3,000 feet AMSL. Riparian habitat is present along Alvarado Creek but species was not observed.
San Diego goldenstar (Bloomeria clevelandii)	 1B.1 MSCP Covered	Perennial herb	Not Expected. Occurs in chaparral, coastal sage scrub, valley and foothill grassland, and vernal pools at elevations between 170 and 15000 feet AMSL. Suitable habitat is not present on site.

Source: RECON 2019

Federal Status Codes: FE = federally listed endangered; FT = federally listed threatened

State Status Codes: CE = state listed endangered California Native Plant Society Rare Plant Rankings:

- 1B = Rare, threatened, or endangered in California and elsewhere. Eligible for state listing.
- 2B = Rare, threatened, or endangered in California but more common elsewhere. Eligible for state listing.
- 3 = Review list: Plants about which more information is needed. Some eligible for state listing.
- 4 = Watch list: plants of limited distribution. Needs monitoring for changes in population status. Few (if any) eligible for state listing.
- .1 = Seriously threatened in California (over 80 percent of occurrences threatened/high degree and immediacy of threat)
- .2 = Moderately threatened in California (20-80% occurrences threatened/moderate degree and immediacy of threat.
- .3 = Not very threatened in California (less than 20% of occurrences threatened/low degree and immediacy of threat or no current threats known.

City Status Codes: MSCP Covered = Multiple Species Conservation Program covered species; NE = narrow endemic.

Sensitive Wildlife Species

No sensitive wildlife species were detected within the survey area during the biological survey. Based on a search of CNPS and CNDDB records, there is potential for 17 sensitive wildlife species to occur in the project vicinity as identified in Table 4.2-3, *Sensitive Wildlife Species with Potential to Occur in the Biological Survey Area*. No sensitive wildlife species were observed during the biological survey.

Table 4.2-3
SENSITIVE WILDLIFE SPECIES WITH POTENTIAL TO OCCUR IN THE BIOLOGICAL SURVEY AREA

	Listing Sensitivity	
Species	Federal State City	Habitat and Potential to Occur
Amphibians		
Western spadefoot (Spea hammondii)	CSC 	Not Expected. Inhabits vernal pools, floodplains, and alkali flats within areas of open vegetation. Suitable habitat is not present on site.
Arroyo toad (Anaxyrus californicus)	FE CSC MSCP Covered	Not Expected. Inhabits open streamside and sand/gravel flats and breeds in quiet, shallow pools along stream edges. Suitable habitat is not present on site because Alvarado Creek is channelized.
Reptiles	•	1
Coast horned lizard (Phrynosoma balinvillii)	CSC MSCP Covered	Not Expected. Inhabits chaparral and coastal sage scrub with fine, loose soil. Suitable habitat is not present on site.
Belding's orange-throated whiptail (Aspidoscelis hyperythra beldingi)	 CSC MSCP Covered	Not Expected. Inhabits chaparral and coastal sage scrub with coarse, sandy soils and scattered brush. Suitable habitat is not present on site.
Two-striped garter snake (Thamnophis hammondii)	CSC 	Not Expected. Inhabits permanent freshwater streams with rocky bottoms in mesic areas. Suitable habitat is not present on site because Alvarado Creek is channelized and does not have a rocky bottom.
Red diamond rattlesnake (<i>Crotalus ruber</i>)	CSC 	Not Expected. Inhabits desert scrub, riparian, coastal sage scrub, open chaparral, grassland, and agricultural fields. Suitable habitat is not present on site.
Birds		
Cooper's hawk (Accipiter cooperii)	 WL MSCP Covered	Moderate Potential. Inhabits mature forest, open woodlands, wood edges, river groves, and parks and residential areas. Mature trees within Alvarado Creek and the existing RV facility could potentially be used for nesting by this species.
White-tailed kite (Elanus leucurus)	CFP	Not Expected. Nests in riparian woodland, oaks, and sycamores and forages in open, grassy areas. Riparian habitat occurs on site, but species was not observed and not expected to nest or forage on site due to the narrow riparian habitat and proximity to urban development.
Southwestern willow flycatcher (Empidonax traillii extimus)	FE CE MSCP Covered	Not Expected. Nesting restricted to willow thickets and also occupies other woodlands. Willow woodland occurs on site, but species was not observed and not expected to occur due to the minimal amount of willow riparian habitat on site.

Table 4.2-3 (cont.)
SENSITIVE WILDLIFE SPECIES WITH POTENTIAL TO OCCUR IN THE BIOLOGICAL SURVEY AREA

	Listing Sensitivity	
Species	Federal State City	Habitat and Potential to Occur
Birds (cont.)		
Least Bell's vireo (Vireo bellii pusillus)	FT CSC MSCP Covered	Low Potential. Inhabits willow riparian woodlands. Willow woodland occurs on site, but species was not observed and not expected to occur due to the minimal amount of willow woodland habitat on site.
Coastal California gnatcatcher (Polioptila californica californica)	FT CSC MSCP Covered	Not Expected. Inhabits coastal sage scrub and maritime succulent scrub. Suitable habitat is not present on site.
Yellow-breasted chat (Icteria virens auricollis)	CSC 	Low Potential. Inhabits dense riparian woodland. Willow woodland occurs on site, but species was not observed and has low potential to occur because the willow woodland habitat is likely not dense enough for breeding.
Mammals		
Western mastiff bat (Eumops perotis californicus)	CSC 	Moderate Potential. Inhabits woodlands, rocky habitat, arid and semi-arid lowlands, cliffs crevices, buildings and tree hollows. Species was not observed on site but has a moderate potential to forage on site given the presence of woodlands and trees.
Pocketed free-tailed bat (Nyctinomops femorosaccus)	CSC 	Moderate Potential. Normally roosts in crevice in rocks, slopes, and cliffs. Species was not observed on site but has a moderate potential to forage on site.
Big free-tailed bat (Nyctinomops macrotis)	CSC 	Moderate Potential. Inhabits rugged, rocky terrain and roosts in crevices, buildings, caves, and tree holes. Species was not observed on site but has a moderate potential to forage on site given the presence of woodlands and trees.
Northwestern San Diego pocket mouse (Chaetodipus fallax fallax)	CSC 	Low Potential. Occurs in San Diego County west of mountains in sparse, disturbed coastal sage scrub or grasslands with sandy soils. Species was not observed on site but has a moderate potential to forage on site.
San Diego desert woodrat (Neotoma lepida intermedia)	CSC 	Not Expected. Inhabits coastal sage scrub and chaparral. Suitable habitat is not present on site.

Source: RECON 2019

Federal Status Codes: FE = federally listed endangered; FT = federally listed threatened

State Status Codes: CE = state listed endangered; CSC = state species of special concern; WL = watch list

City Status Codes: MSCP Covered = Multiple Species Conservation Program covered species

4.2.1.6 Wildlife Corridors and Nursery Sites

Wildlife corridors are defined as linear spaces of undeveloped native habitats that connect both large and small natural open space and provide opportunities for wildlife movement. Wildlife corridors contribute to species' sustainability by providing access to adjacent habitat areas for dispersal, foraging, and mating. Linkages between wildlife corridors connect isolated blocks of habitat and allow movement or dispersal species over a large scale and the consequent mixing of genes between populations (i.e., gene pool diversity).

Alvarado Creek, portions of which are located within the biological survey area, functions as a local wildlife corridor. The creek flows east to west, entering into the site in the northeast portion of the site

and draining underground at the western end of the project site. The remainder of the site does not serve as a wildlife corridor. Although a portion of the site may function for local wildlife movement, the site is not a significant regional wildlife corridor as it does not connect large blocks of habitat or provide a throughway for wildlife species into major areas of off-site habitats.

Wildlife nursery sites are specific areas that contain the resources necessary for adult wildlife species to breed, give birth, and rear their young. Nursery sites support the constituent habitat elements required by juvenile wildlife species to grow and develop, including adequate space, refuge, food, and physical conditions in the environment. No known or potential wildlife nursery sites occur on, or in the immediate vicinity, of the biological survey area.

4.2.1.7 Federal and State Jurisdictional Waters

A wetland delineation was conducted within the biological survey area to map the extent of federal and state jurisdictional waters (RECON 2019). USACE federal waters of the U.S. and CDFW and RWQCB waters of the State occur within the biological survey area associated with Alvarado Creek (Table 4.2-4, Existing Federal and State Jurisdictional Areas within the Biological Survey Area). Federal and state wetlands include areas of the creek vegetated with either freshwater marsh or willow woodland habitat. Federal non-wetland waters include the concrete lined portions of the creek bottom. State streambed and bank include the concrete-lined portions of the creek bottom, as well as the concrete-lined and earthen banks. The location of federal waters is shown on Figure 4.2-2, Federal Jurisdictional Areas, and the location of state waters is shown on Figure 4.2-3, State Jurisdictional Areas.

Table 4.2-4
EXISTING FEDERAL AND STATE JURISDICTIONAL AREAS WITHIN THE BIOLOGICAL SURVEY AREA

Jurisdiction	On Site (acres)	Off Site (acres)	Total (acres)
Federal Waters of the U.S. (USACE)			
Wetland	0.98	0.90	1.88
Non-wetland Waters	0.09	0	0.09
TOTAL Federal	1.07	0.90	1.97
Waters of the State (RWQCB, CDFW)			
Wetland	0.98	0.90	1.88
Streambed/Bank	0.37	0.02	0.39
TOTAL State	1.35	0.92	2.27

Source: RECON 2019

USACE = U.S. Army Corps of Engineers; RWQCB = Regional Water Quality Control Board; CDFW = California Department of Fish and Wildlife

4.2.2 Regulatory Setting

4.2.2.1 Federal

Federal Endangered Species Act

Administered by the USFWS, FESA provides the legal framework for the listing and protection of species (and their habitats) that are identified as being endangered or threatened with extinction. Actions that impact endangered or threatened species and the habitats upon which they rely are considered a "take" under the FESA. Section 9(a) of the FESA defines take as "to harass, harm, pursue, hunt, shoot, wound,

kill, trap, capture, or collect, or attempt to engage in any such conduct." "Harm" and "harass" are further defined in federal regulations and case law to include actions that adversely impair or disrupt a listed species' behavioral patterns.

The USFWS designates critical habitat for endangered and threatened species. Critical habitat is defined as areas of land that are considered necessary for endangered or threatened species to recover. The ultimate goal is to restore healthy populations of listed species within their native habitats so they can be removed from the list of threatened or endangered species. Once an area is designated as critical habitat pursuant to the FESA, federal agencies must consult with the USFWS to ensure that any action they authorize, fund, or carry out is not likely to result in destruction or adverse modification of the critical habitat. No critical habitat has been designated within the City.

Sections 7 and 10(a) of the FESA regulate actions that could impact endangered or threatened species. Section 7 generally describes a process when federal actions may adversely affect listed species. Section 10(a) generally describes a process for non-federal agencies; including preparation of a Habitat Conservation Plan and issuance of an Incidental Take Permit (ITP).

Migratory Bird Treaty Act

Migratory bird species that are native to the U.S. or its territories are protected under the MBTA, as amended under the Migratory Bird Treaty Reform Act of 2004 (Federal Register Doc. 05-5127). The MBTA protects migratory birds and their breeding activities from deliberate take. Enforced in the U.S. by the USFWS, the MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in Code of Federal Regulations Title 50, Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations. Disturbance that causes nest abandonment and/or loss of reproductive effort (e.g., killing or abandonment of eggs or young) may be considered a "take" and is potentially punishable by fines and/or imprisonment. In common practice, the MBTA is used to place restrictions on disturbance of or near active bird (including raptor) nests during the avian nesting season (generally February 1 to July 30).

Clean Water Act

The CWA is legislation that regulates water quality standards and impacts (fills and discharges) to surface waters, including wetlands. The USACE regulates impacts to waters of the United States under Section 404 of the CWA (33 U.S.C. 401 et seq.; 33 U.S.C. 1344; U.S.C. 1413; and Department of Defense, Department of the Army, Corps of Engineers 33 CFR Part 323). A federal CWA Section 404 Permit would be required for a project to place fill in waters of the United States. Projects impacting waters of the United States could be permitted on an individual basis or be covered under one of several approved nationwide permits. Individual permits are assessed individually based on the type of action, amount of fill, etc. Individual permits typically require substantial time (often longer than one year) to review and approve, while nationwide permits are pre-approved if a project meets appropriate conditions. A CWA Section 401 Water Quality Certification administered by the RWQCB must be issued prior to issuance of a Section 404 Permit.

4.2.2.2 State

California Endangered Species Act

Similar to FESA, the California Endangered Species Act (CESA) of 1970 provides protection to species considered threatened or endangered by the State of California (California Fish and Game Commission [CFGC], Section 2050 et seq.). The CESA recognizes the importance of threatened and endangered fish, wildlife, and plant species and their habitats, and prohibits the taking of any endangered, threatened, or rare plant and/or animal species unless specifically permitted for education or management purposes.

The CESA established that it is state policy to conserve, protect, restore, and enhance state endangered species and their habitats. Under state law, plant and animal species may be formally designated rare, threatened, or endangered by official listing by the CFGC. The CESA authorizes that private entities may "take" plant or wildlife species listed as endangered or threatened under the FESA and CESA, pursuant to a federal Incidental Take Permit if the CDFW certifies that the incidental take is consistent with CESA (CFGC Code Section 2080.1[a]). For state-only listed species, CFGC Section 2081 authorizes the CDFW to issue an Incidental Take Permit for State listed threatened and endangered species if specific criteria are met, including (1) the taking is incidental to an otherwise lawful activity; (2) the taking will be minimized and fully mitigated; (3) the applicant ensures adequate funding for minimization and mitigation; and (4) the authorization will not jeopardize the continued existence of the listed species.

California Fish and Game Code

The California Fish and Game (CFG) Code regulates the protection of birds, mammals, fish, amphibians, and reptiles, in addition to natural resources such as wetlands and waters of the State. Pursuant to CFG Code Section 3503, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Raptors, including owls, and their active nests are protected by CFG Code Section 3503.5, which states that it is unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird unless authorized by the CDFW. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the MBTA. These regulations could require that construction activities (particularly vegetation removal or construction near nests) be reduced or eliminated during critical phases of the nesting cycle unless surveys by a qualified biologist demonstrate that nests, eggs, or nesting birds would not be disturbed, subject to approval by CDFW and/or USFWS.

Under sections 1600 et. seq. of the CFG Code, CDFW regulates activities that would divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake that supports fish or wildlife and requires a Streambed Alteration Agreement for such activities. The CDFW issues a Streambed Alteration Agreement with any necessary mitigation to ensure protection of the State's fish and wildlife resources. The CDFW has jurisdiction over riparian habitats associated with watercourses.

Natural Community Conservation Planning Act

The Natural Communities Conservation Planning (NCCP) program is a cooperative effort to protect habitats and species. It began under the State's NCCP Act of 1991, legislation broader in its orientation and objectives than the CESA or FESA. These laws are designed to identify and protect individual species that have already declined significantly in number. The NCCP Act of 1991 and the associated Southern California Coastal Sage Scrub NCCP Process Guidelines (1993b), Southern California Coastal Sage Scrub

NCCP Conservation Guidelines (1993a), and NCCP General Process Guidelines (1998) have been superseded by the NCCP Act of 2003.

The primary objective of the NCCP program is to conserve natural communities at the ecosystem level while accommodating compatible land use. The program seeks to anticipate and prevent the controversies and gridlock caused by species listings by focusing on the long-term stability of wildlife and plant communities and including key interests in the process.

This voluntary program allows the State to enter into planning agreements with landowners, local governments, and other stakeholders to prepare plans that identify the most important areas for a threatened or endangered species, and the areas that may be less important. These NCCP plans may become the basis for a State permit to take threatened and endangered species in exchange for conserving their habitat. The CDFW and USFWS worked to combine the NCCP program with the federal HCP process to provide take permits for State and federal listed species. Under the NCCP, local governments, such as the City, can take the lead in developing these NCCP plans and become the recipients of State and federal take permits. The City has developed such a plan, as discussed below under Section 4.2.2.3.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (California Water Code, Division 7) was created to facilitate the coordination of water quality regulations throughout the state of California. The Act established the SWRCB as the statewide authority and authorizes the SWRCB to adopt, review, and revise policies for all waters of California, including both surface and ground waters. Section 13170 of the California Water Code also authorizes the SWRCB to adopt water quality control plans on its own initiative. Additionally, the Act established nine separate RWQCBs to oversee smaller regional areas within California and directs the RWQCBs to develop regional Basin Plans. The San Diego Basin Plan is designed to preserve and enhance the quality of water resources in the San Diego region to benefit present and future generations (RWQCB 1994). The purpose of the plan is to designate beneficial uses of the region's surface and ground waters, designate water quality objectives for the reasonable protection of those uses and establish an implementation plan to achieve the objectives.

4.2.2.3 Local

City of La Mesa General Plan

According to the City of La Mesa General Plan, approximately 98 percent of the City's land has been developed with residential and commercial uses, so La Mesa does not have an abundance of biological resources such as significant natural habitat areas or bodies of water (City 2012a). As such, the General Plan includes a Conservation and Sustainability Element that focuses on supporting regional resource conservation efforts and sustainability as the City continues to grow. One of the main goals within the Conservation and Sustainability Element that is applicable the proposed project is Goal CS-1, which encourages the sustainable use of land and natural resources. Goal CS-1 is further supported through Objective CS-1.1, which is the intention of creating compact, mixed-use projects with amenities to enhance the City's natural setting. This is maintained by Policy CS-1.1.2 to promote the Mixed-Use Overlay Zone and related Design Guidelines to encourage infill along the City's transit corridors, and Policy CS-1.1.3 to preserve existing trees where appropriate and require planting of new trees in conjunction with public and private developments.

The Recreation and Open Space Element also contains goals, objectives, and policies aimed at conservation of natural areas and biological habitat. Goal RO-2 is to be a city that values areas of native vegetation for open space and biological habitat. The supporting Objective RO-2.1 is to preserve and restore open space and natural features consistent with the City's HCP. Furthermore, Policy RO-2.1.1 promotes the preservation, where feasible, of the most sensitive open space and natural lands and the inclusion of landscape features that are compatible with adjacent natural vegetation.

City of La Mesa Subarea Habitat Conservation Plan

The City of La Mesa Subarea Habitat Conservation Plan/Natural Community Conservation Plan (City 1998) is a local habitat conservation plan prepared pursuant to the NCCP Act to supplement the San Diego MSCP Subregional Plan. The MSCP is intended to provide for the protection and conservation of the region's sensitive plant and wildlife species habitat while continuing to allow appropriate levels of development and growth. As a planning tool, the MSCP protects the region's biodiversity while reducing conflicts between development interests and natural resources. The project site is located within the boundaries of the City's Subarea Plan but is not located within a designated preserve area.

4.2.3 Methodology and Assumptions

The analysis of potential impacts of the proposed project on biological resources is based on the Biological Resources Report prepared for the project (RECON 2019), which is included as Appendix C of this EIR. The Biological Resources Report includes a biological survey of the project site and some adjacent off-site areas along Alvarado Creek to identify vegetation communities and land cover types within the biological survey area and map them on an aerial photograph of the site. The survey also included notation plant species observed in the area, as well as wildlife species found either directly or detected from calls, tracks, scat, nests, or other signs.

A jurisdictional delineation was also conducted on the project site and some adjacent off-site areas along Alvarado Creek in accordance with USACE guidelines. Prior to conducting the delineation, aerial imagery was examined to aid in the determination of potential federal and state jurisdictional areas within the biological survey area. During the delineation, the biological survey area was surveyed to determine the presence of jurisdictional indicators, including wetland vegetation, hydric soils, and hydrology. Soil test pits (four sampling points) were conducted within potential wetland areas and in, or adjacent to, the inferred boundary between wetland and upland vegetation (based on changes in topography, hydrology, and composition of the vegetation).

Regulatory databases were reviewed to identify the potential for listed, sensitive, or noteworthy species to occur on the site, which was based upon known ranges and habitat preferences for the species, and species occurrence records from the CNDDB, USFWS, and other sites in the vicinity of the biological survey area.

4.2.4 Significance Thresholds

According to Appendix G of the CEQA Guidelines, a significant impact associated with biological resources would occur if implementation of the proposed project would result in any of the following:

1. Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?

- 2. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS?
- 3. Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?
- 4. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?
- 5. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
- 6. Would the project conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plan?

4.2.5 Impact Analysis

4.2.5.1 Sensitive Species

Threshold 1: Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?

Sensitive Plant Species

As stated above in Section 4.2.1.5, none of the nine sensitive plant species with the potential to occur in the biological survey area are expected to occur within the survey area and no sensitive plant species were observed during the biological site survey. Most of the project site is developed or disturbed, and the vegetation that exists is composed primarily of non-native plant species. Some native plant species are present along Alvarado Creek and in disturbed areas, but none are considered sensitive. Given the level of disturbance, no sensitive plant species would be expected to occur within the survey area. Therefore, no impacts are anticipated to occur to candidate, sensitive, or special status plant species as a result of the proposed project.

Sensitive Wildlife Species

As stated above in Section 4.2.1.5, none of the 17 sensitive wildlife species with the potential to occur in the biological survey area were observed during the site survey. Although riparian habitat is present within the survey area along Alvarado Creek, there is zero to low potential for the site to support sensitive bird species that inhabit riparian areas (e.g., least Bell's vireo, yellow-breasted chat, southwestern willow flycatcher, and white-tailed kite) due to the level of disturbance within this reach of the creek and lack of vegetation within the understory.

As identified in Table 4.2-3, there is moderate potential for the Cooper's hawk to nest on site due to the presence of existing tall trees within the site and Alvarado Creek, although this species was not observed or detected during the biological site survey. The removal of vegetation during the general bird nesting

season (February 1 through September 15) could result in direct or indirect impacts to this sensitive raptor species. Direct impacts could occur if vegetation is removed that supports an active nest, while indirect impacts could occur as a result of construction noise and vibration adjacent to an active nest, which could result in a nest failure. Therefore, construction of the proposed project could result in potentially significant impacts to the Cooper's hawk.

There is also moderate potential for three sensitive bat species to forage on the site, including the western mastiff bat, pocketed free-tailed bat, and big free-tailed bat (see Table 4.2-3). While known to occur within two miles of the project site, none of these species were observed or detected during the biological site survey and the site does not contain suitable bat habitat preferences or features (i.e., caves, crevices, cliffs) to support roosts of these species. Thus, while foraging may potentially occur in the project area, no direct impacts to these bat species would occur as a result of the proposed project.

The developed nature of the site and other disturbance factors generally limit the potential for other sensitive wildlife species (including those identified in Table 4.2-3) from occurring within the biological survey area. The site is developed and mostly devoid of habitat that could support sensitive wildlife species. Other limiting factors include the developed nature of surrounding areas and exposure to regular disturbances, including lighting, noise, and vehicle activity. Furthermore, the project site is regionally isolated and lacks direct connectivity or reasonable proximity to larger stands of native habitat. Given these factors, no other sensitive wildlife species are anticipated to occur within the biological survey area.

Nesting Birds

Implementation of the proposed project would involve the removal of on-site vegetation which has the potential to serve as habitat for nesting or migratory birds protected under the MBTA and CFG Code. The removal of vegetation during the general bird nesting seasons (January 15 through August 31) could result in both direct and indirect impacts to nesting or migratory birds. Direct impacts could occur if vegetation is removed that supports an active nest, while indirect impacts could occur as a result of construction noise and vibration adjacent to an active nest, which could result in a nest failure. These impacts to nesting and migratory birds would violate the MBTA and CFG Code. Therefore, construction of the proposed project could result in potentially significant impacts to nesting and migratory birds.

4.2.5.2 Sensitive Habitats

Threshold 2: Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS?

As stated above in Section 4.2.1.2, there are two sensitive vegetation communities that are located on the project site, including freshwater marsh and willow woodland. Other vegetation communities/land cover types within the biological study area include disturbed land, developed, and concrete channel, none of which are considered sensitive vegetation communities. As shown in Table 4.2-1, 1.13 acres of freshwater marsh and 0.75 acre of willow woodland are present in the biological survey area. Implementation of the proposed project would not result in permanent impacts to these two sensitive vegetation communities; however, temporary impacts to both freshwater marsh and willow woodland

would occur, as presented in Table 4.2-5, Summary of Temporary Impacts to Sensitive Vegetation Communities, and Figure 4.2-4, Project Impacts to Biological Resources.

Table 4.2-5
SUMMARY OF TEMPORARY IMPACTS TO SENSITIVE VEGETATION COMMUNITIES

Sensitive Vegetation Community	On Site Impacts (acres)	Off Site Impacts (acres)	Total Impacts (acres)
Freshwater Marsh	0.03	0.01	0.04
Willow Woodland	0.01	0	0.01
TOTAL	0.04	0.01	0.05

Source: RECON 2019

A total of 0.04 acre of freshwater marsh and 0.01 acre of willow woodland would be temporarily impacted as a result of the project, resulting in a total of 0.05 acre of impacts to sensitive vegetation communities. Temporary impacts to freshwater marsh and willow woodland would be considered significant, and therefore mitigation is required.

4.2.5.3 Jurisdictional Waters and Wetlands

Threshold 3: Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

As shown in Table 4.2-4, there are 1.97 total acres of federal jurisdictional waters and 2.27 total acres of state jurisdictional waters within the biological survey area. The federal and state wetlands include areas of Alvarado Creek that are vegetated with either freshwater marsh or willow woodland. Federal non-wetland waters include the concrete lined portions along the bottom of the creek, while state streambed and bank included these concrete lined portions of the creek bottom in addition to the concrete lined and earthen banks (refer to Figures 4.2-2 and 4.2-3).

Implementation of the proposed project would result in permanent and temporary impacts to federal and state jurisdictional waters. The impacts would occur along the banks of Alvarado Creek are a result of the removal and replacement of retaining walls and concrete banks and within the creek bed due to the removal/relocation of utility lines. Permanent and temporary impacts resulting from project implementation are presented in Tables 4.2-6, Summary of Permanent Impacts to Federal and State Jurisdictional Waters, and 4.2-7, Summary of Temporary Impacts to Federal and State Jurisdictional Waters. The locations of anticipated project impacts are shown on Figure 4.2-5, Project Impacts to Federal Jurisdictional Waters, and Figure 4.2-6, Project Impacts to State Jurisdictional Waters.

Table 4.2-6
SUMMARY OF PERMANENT IMPACTS TO FEDERAL AND STATE JURISDICTIONAL WATERS

Jurisdiction	On Site Impacts ¹ (acres)	Off Site Impacts ¹ (acres)	Total Impacts ¹ (acres)
Federal Waters of the U.S. (USACE)			
Wetland	0.03	0	0.03
Non-wetland Water	0	0	0
TOTAL Federal	0.03	0	0.03
Waters of the State (RWQCB, CDFW)			
Wetland	0.03	0	0.03
Streambed/Bank	0.06	0	0.06
TOTAL State	0.09	0	0.09

Source: RECON 2019

Acreages are rounded to the nearest 0.01.

USACE = U.S. Army Corps of Engineers; RWQCB = Regional Water Quality Control Board; CDFW = California Department of Fish and Wildlife

Table 4.2-7
SUMMARY OF TEMPORARY IMPACTS TO FEDERAL AND STATE JURISDICTIONAL WATERS

Jurisdiction	On-Site Impacts ¹ (acres)	Off-Site Impacts ¹ (acres)	Total Impacts ¹ (acres)
Federal Waters of the U.S. (USACE)			
Wetland	0.04	0.01	0.05
Non-wetland Water	0	0.01	0.01
TOTAL Federal	0.04	0.02	0.06
Waters of the State (RWQCB, CDFW)			
Wetland	0.04	0.01	0.05
Streambed/Bank	0.16	0.02	0.18
TOTAL State	0.20	0.03	0.23

Source: RECON 2019

Acreages are rounded to the nearest 0.01.

USACE = U.S. Army Corps of Engineers; RWQCB = Regional Water Quality Control Board; CDFW = California Department of Fish and Wildlife

Implementation of the proposed project would result in permanent impacts to 0.03 acre of federal jurisdictional waters and 0.09 acre of state jurisdictional waters. Temporary impacts would occur to 0.06 acre of federal waters and 0.23 acre of state waters. Permanent and temporary impacts to federal and state jurisdictional waters are considered significant and would require compensatory mitigation, as well as a federal CWA Section 404 Permit from the USACE, a Section 401 Water Quality Certification from the State Water Resources Control Board (SWRCB)/RWQCB, and a 1602 Streambed Alteration Agreement from the CDFW.

Impacts to Waters of the U.S. and Waters of the State are not additive; impacts to federal wetlands coincide with state wetlands.

Impacts to Waters of the U.S. and Waters of the State are not additive; impacts to federal wetlands coincide with state wetlands.

4.2.5.4 Wildlife Movement

Threshold 4: Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

As stated in Section 4.2.1.6, Alvarado Creek functions as a local wildlife corridor. The creek flows into the site from the east and drains underground at the western end of the project site and then continues off site to west. However, this portion of Alvarado Creek is not considered a regional wildlife corridor because although it may function for some local wildlife movement, the project site and surrounding areas are developed such that this reach of the creek does not serve as a habitat linkage to off-site wildlife corridors or large native habitat areas. Additionally, the La Mesa Subarea HCP/NCCP does not identify the project site as a core biological resource or linkage area (City 1998). Any work conducted within and adjacent to Alvarado Creek as part of the proposed project would be temporary, and the proposed improvements to Alvarado Creek would improve the function and value of habitat within this reach through native revegetation and increased hydrologic flow, which would benefit wildlife movement. Consequently, the proposed project would not substantially interfere with wildlife movement within this local wildlife corridor. As stated in Section 4.2.1.6, no known or potential wildlife nursery sites occur on, or in the immediate vicinity, of the project site. As a result, the project would not impede the use of a native wildlife nursery site. Impacts related to wildlife corridors and nursery sites as a result of the project would be less than significant.

4.2.5.5 Biological Resource Protection Policies and Ordinances

Threshold 5: Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Construction of the proposed project would require the removal of existing vegetation on the site, including numerous non-native/ornamental trees and landscaping within the developed portion of the site, as well as some native vegetation within and along Alvarado Creek (as discussed in Section 4.2.5.2). The proposed project would not conflict with applicable goals, objectives, and policies within the General Plan Conservation and Sustainability Element or Recreation and Open Space Element, including Goal CS-1 (the sustainable use of natural resources and land), Policy CS-1.1.3 (preserve existing trees where appropriate and require planting of new trees in conjunction with public and private developments), Goal RO-2 (a City that values areas of native vegetation for their open space and biological habitat), Objective RO-2.1 (preserve and restore open space and natural features consistent with the City's HCP), and Policy RO-2.1.1 (the most sensitive open space and natural lands shall be preserved where feasible and include landscape features that are compatible with adjacent natural vegetation). The project would minimize impacts to sensitive biological resources and Alvarado Creek would be revegetated with native riparian vegetation, which would provide for improved biological habitat and resources. New trees, ornamental landscaping, and native riparian vegetation would be planted as part of the comprehensive landscape plan for the project. New trees would be planted in accordance with the City's Tree Policy Manual, which provides a reference for existing guidelines, policies, and standards for the planting, care, preservation, maintenance, and replacement of trees (City 2013a). In addition, project implementation would not impact the City's habitat preserve area as identified in the La Mesa Subarea HCP/NCCP. Therefore, the proposed project would not conflict with local policies or ordinances protecting biological resources. Impacts would be less than significant.

4.2.5.6 Habitat Conservation Plans

Threshold 6: Would the project conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plan?

The project site is located within the boundaries of the City of La Mesa Subarea HCP/NCCP, but not within or in the vicinity of areas designated as Multi-Habitat Planning Area, Core Biological Resource Areas and Linkages, or other preserve lands as identified in the Subarea HCP/NCCP. Although the project site is located within a highly developed area of the City, there are trees throughout the site and riparian habitat along Alvarado Creek that could potentially support sensitive species (Cooper's hawk within trees and least Bell's vireo within riparian habitat) protected by the Subarea Plan (refer to Table 4.2-3). Implementation of mitigation is identified in Section 4.2.6.1 that would avoid significant project impacts to these MCSP-covered species. Therefore, the proposed project would not conflict with the provisions of the adopted La Mesa Subarea HCP/NCCP. Impacts would be less than significant with mitigation.

4.2.6 Mitigation Measures

4.2.6.1 Sensitive Species

Potentially significant impacts to sensitive species (Cooper's hawk and other raptor species) and nesting birds could result from the proposed project. Implementation of mitigation measure BIO-1 would reduce these impacts to below a level of significance.

BIO-1 Biological Resource Protection

I. Prior to Construction

- a. Biologist Verification The owner/permittee shall designate a project biologist (Qualified Biologist) to be retained to implement a project biological monitoring program.
- b. **Pre-construction Meeting** The Qualified Biologist shall attend the pre-construction meeting(s), discuss the project's biological monitoring program.
- c. Avian Protection Requirements To avoid direct impacts to avian species identified as listed, candidate, sensitive, or special status, removal of habitat that supports active nests in the proposed area of disturbance should occur outside of the avian breeding season (February 1 to September 15). If removal of habitat in the proposed area of disturbance must occur during the breeding season, the Qualified Biologist shall conduct a pre-construction survey to determine the presence or absence of nesting bird species on the proposed area of disturbance. The pre-construction survey shall be conducted within 10 calendar days prior to the start of construction activities (including removal of vegetation). The owner/permittee shall submit the results of the pre-construction survey to the City of La Mesa for review and approval prior to initiating any construction activities. If nesting activities for any sensitive bird or MBTA-protected species are detected, a letter report or mitigation plan in conformance with applicable state and federal law (i.e., appropriate follow up surveys, monitoring schedules, construction and noise barriers/buffers, etc.) shall be prepared and include proposed measures to be implemented to ensure that take of birds or eggs or disturbance of breeding activities is

- avoided. The report or mitigation plan shall be submitted to the City of La Mesa for review and approval and implemented to the satisfaction of the City.
- d. Resource Delineation Prior to construction activities, the Qualified Biologist shall supervise the placement of orange construction fencing or equivalent along the limits of disturbance adjacent to sensitive biological habitats.
- e. **Education** Prior to commencement of construction activities, the Qualified Biologist shall meet with the owner/permittee or designee and the construction crew and conduct an on-site educational session regarding the need to avoid impacts outside of the approved construction area and to protect sensitive biological resources.

II. During Construction

- a. Monitoring All construction (including access/staging areas) shall be restricted to areas previously identified, proposed for development/staging, or previously disturbed as shown on the approved grading plans. The Qualified Biologist shall monitor construction activities as needed, to ensure that construction activities do not encroach into biologically sensitive areas, or cause other similar damage, and that the work plan has been amended to accommodate any sensitive species located during the preconstruction surveys.
- b. Subsequent Resource Identification The Qualified Biologist shall note/act to prevent any new disturbances to habitat, flora, and/or fauna on-site (e.g., flag plant specimens for avoidance during access, etc.). If active nests or other previously unknown sensitive resources are detected, all project activities that directly impact the resource shall be delayed until species-specific local, state or federal regulations have been determined and applied by the Qualified Biologist.

4.2.6.2 Sensitive Habitats

Implementation of the proposed project would result in temporary impacts to two sensitive vegetation communities, including freshwater marsh and willow woodland. These impacts are considered significant and require compensatory mitigation. Implementation of mitigation measure BIO-2 would reduce these impacts to below a level of significance.

BIO-2 Sensitive Habitat Replacement. Temporary impacts to 0.04 acre of freshwater marsh and 0.01 acre of willow woodland shall be mitigated within the biological survey area at a minimum 1:1 ratio through revegetation and establishment within Alvarado Creek. Temporarily impacted areas of Alvarado Creek shall be revegetated, and new wetlands shall be established in areas of the widened creek bed. The revegetation and establishment areas shall be planted with wetland native species, including broad-leaved cattail, Olney's three-square bulrush, and southern bulrush and shall be maintained and monitored for an initial period of five years in accordance with a project Habitat Restoration Plan and regulatory permit conditions.

4.2.6.3 Jurisdictional Waters and Wetlands

Implementation of the proposed project would result in temporary and permanent impacts to federal and state jurisdictional waters and wetlands, as identified in Tables 4.2-6 and 4.2-7. Implementation of the mitigation measure BIO-3 would reduce these impacts to below a level of significance.

BIO-3 Wetland Habitat Replacement. Temporary and permanent impacts to federal and state jurisdictional waters (i.e., wetlands, non-wetland/streambed/bank and associated sensitive vegetation communities) shall be mitigated within the biological survey area through wetland revegetation and establishment within Alvarado Creek, as identified in Table 4.2-8, Summary of Proposed Jurisdictional Waters Mitigation. Temporarily impacted areas of Alvarado Creek shall be revegetated, and new wetlands shall be established in areas of the widened creek bed. The revegetation and establishment areas shall be planted with wetland native species, including broad-leaved cattail, Olney's three-square bulrush, and southern bulrush and shall be maintained and monitored for an initial period of five years in accordance with a project Habitat Restoration Plan and regulatory permit conditions. Following project construction, Alvarado Creek, within the limits of the project site, shall be preserved and enhanced as part of the long-term maintenance and management of Alvarado Creek in accordance with an approved Management Plan. Long-term maintenance task shall include removal of non-native species and selective thinning of woody vegetation.

Table 4.2-8
SUMMARY OF PROPOSED JURISDICTIONAL WATERS MITIGATION

Wetland Mitigation Type	On Site Mitigation (acres)	Off Site Mitigation (acres)	Total Mitigation (acres)
Wetland Revegetation	0.12	0.02	0.14
Wetland Establishment	0.21	0.01	0.22
TOTAL	0.33	0.03	0.36

Source: RECON 2019

4.2.6.4 Wildlife Movement

No significant impacts related to wildlife corridors, linkages, and nursery sites would result from the implementation of the proposed project. Therefore, no mitigation measures are required.

4.2.6.5 Biological Resource Protection Policies and Ordinances

No significant impacts related to biological resources protection policies or ordinances would result from the implementation of the proposed project. Therefore, no mitigation measures are required.

4.2.6.6 Habitat Conservation Plans

Implementation of the proposed project could potentially result in significant impacts to MSCP-covered species (Cooper's hawk within trees and least Bell's vireo within riparian habitat). Implementation of mitigation measure BIO-1 above would avoid significant project impacts to these MCSP-covered species.

4.2.7 Significance Determination

The significance of biological resources impacts before and after mitigation is summarized in Table 4.2-9, *Significance Determination Summary of Biological Resources Impacts*. Impacts related to wildlife movement, and biological resources protection policies and ordinances would be less than significant, and no mitigation is required. Implementation of the proposed project, however, would result in potentially significant impacts to sensitive species, sensitive habitats, jurisdictional waters and wetlands, and habitat conservation plans. With implementation of mitigation measures BIO-1 through BIO-3 these impacts would be reduced to below a level of significance.

Table 4.2-9
SIGNIFICANCE DETERMINATION SUMMARY OF BIOLOGICAL RESOURCES IMPACTS

Issue	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
Sensitive Species	Potentially significant	BIO-1	Less than significant
Sensitive Habitats	Potentially significant	BIO-2	Less than significant
Jurisdictional Waters and Wetlands	Potentially significant	BIO-3	Less than significant
Wildlife Movement	Less than significant	None required	Less than significant
Biological Resource Protection Policies and Ordinances	Less than significant	None required	Less than significant
Habitat Conservation Plans	Potentially significant	BIO-1	Less than significant

	4.2 Biological Resources
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