4.3 BIOLOGICAL RESOURCES

INTRODUCTION

This section of the EIR addresses the potential for the proposed Plan to conflict with policies protecting biological resources in the Plan Area and within the surrounding area. The analysis focuses on whether the Plan would conflict with existing plans and policies developed to protect biological resources. Regulatory measures are identified. The analysis includes a Biological Technical Report for the Etiwanda Heights Neighborhood and Conservation Plan Rancho Cucamonga, California, dated April 2019, prepared by Dudek, which is included as **Appendix D: Biological Technical Report** to this Draft EIR.

ENVIRONMENTAL SETTING

Regulatory Framework

a. Federal

Federal Endangered Species Act

The Endangered Species Act (ESA)[1] provides the regulatory framework for the protection of plant and animal species (and their associated critical habitats), which are formally listed, proposes for listing, or candidates for listing, as endangered or threatened under the ESA.

The ESA has four major components: provisions for listing species; requirements for consultation with the US Fish and Wildlife Services (USFWS) and the National Marine Fisheries Services; prohibitions against "taking" of listed species; and provisions for permits that allow an incidental "take."[2]

- Section 4(a) requires that critical habitat be designated by the USFWS "to the maximum extent prudent and determinable, at the time a species is determined to be endangered or threatened." Critical habitat is formally designated by USFWS to provide guidance for planners/managers and biologists with an indication of where suitable habitat may occur and where high priority of preservation for a particular species should be given.
- Section 7, called "Interagency Cooperation," is the mechanism by which federal agencies ensure that the actions they take, including those they fund or authorize, do not jeopardize the existence of any listed species. Section 7 of the ESA requires federal agencies to consult with the USFWS on proposed federal actions that may affect endangered, threatened, or proposed (for listing) species or critical habitat that may support the species.

1 Endangered Species Act of 1973 (ESA), 16 USC sec. 1531 et seq.

2 "Take," as defined under the ESA, means to "harass, harm, pursue, hunt, wound, kill, trap, capture, collect, or attempt to engage in any such conduct."

- Section 9 prohibits "take" of endangered species.
- Section 10 provides the regulatory mechanism that allows the incidental take of a listed species by private interests and nonfederal government agencies during lawful activities. Habitat conservation plans (HCPs) for the impacted species must be developed in support of incidental take permits for nonfederal projects to minimize impacts to the species and develop viable mitigation measures to offset the unavoidable impacts.

Migratory Bird Treaty Act

Enacted in 1918, the Migratory Bird Treaty Act (MBTA)[3] is the domestic law that affirms or implements the United States' commitment to four international conventions with Canada, Japan, Mexico, and Russia for the protection of shared migratory bird resources. The MBTA governs the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests. It prohibits the take, possession, import, export, transport, sale, purchase, barter, or offering of these activities, except under a valid permit or as permitted in the implementing regulations.

As with the ESA, the MBTA also authorizes the Secretary of the Interior to issue permits for take. The procedures for securing such permits are found in Title 50 of the Code of Federal Regulations, together with a list of the migratory birds covered by the act. This law is generally protective of migratory birds but does not specify the type of protection required. The USFWS administers permits to take migratory birds in accordance with the regulations promulgated by the MBTA. Nesting raptors, such as red-tailed hawks and burrowing owls, are protected under the MBTA. In common practice, USFWS places restrictions on disturbances allowed near active raptor nests.

U.S. Army Corps of Engineers

Pursuant to Section 404 of the Clean Water Act, the U.S. Army Corps of Engineers (ACOE) regulates the discharge of dredged and/or fill material into "waters of the United States." The term "wetlands" (a subset of waters) is defined in 33 CFR 328.3(b) as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas." In the absence of wetlands, the limits of ACOE jurisdiction in non-tidal waters, such as intermittent streams, extend to the "ordinary high-water mark," which is defined in 33 CFR 328.3(e).

Section 320.4(b)(2) of the ACOE General Regulatory Policies (33 CFR 320–330) list criteria for consideration when evaluating wetland functions and values. These include wildlife habitat (spawning, nesting, rearing,

3 US Migratory Bird Treaty Act (MBTA), 16 United States Code 703 et seq.

and resting), food chain productivity, water quality, groundwater recharge, and areas for the protection from storm and floodwaters.

b. State

California Fish and Game Code

According to Sections 3511 and 4700 of the Fish and Game Code, which regulate birds and mammals, respectively, a "fully protected" species may not be taken or possessed without a permit from the Fish and Game Commission, and "incidental takes" of these species are not authorized.

According to 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. Section 3503.5 states that it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto. Finally, Section 3513 states that is unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

For the purposes of these state regulations, CDFW currently defines an active nest as one that is under construction or in use and includes existing nests that are being modified. For example, if a hawk is adding to or maintaining an existing stick nest in a transmission tower, then it would be considered to be active and covered under these Fish and Game Code Sections.

Section 1600 et. Seq.: Lake and Streambed Alteration Program

The Lake and Streambed Alteration Program requires that a project proponent notify the California Department of Fish and Wildlife (CDFW) of any proposed alteration of streambeds, rivers, and lakes. The intent of the program is to protect habitats that are important to fish and wildlife. CDFW has regulatory authority over activities in streams and lakes that will:

- substantially divert or obstruct the natural flow of any river, stream, or lake;
- substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake;
- deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake.

State and Regional Water Quality Control Board

The intent of the Porter–Cologne Water Quality Control Act is to protect water quality and the beneficial uses of water, and it applies to both surface water and groundwater. Under this law, the State Water Resources Control Board develops statewide water quality plans, and the Regional Water Quality Control Boards (RWQCB) develops basin plans that identify beneficial uses, water quality objectives, and implementation plans. The RWQCBs have the primary responsibility to implement the provisions of both statewide and basin plans. Waters regulated under the Porter–Cologne Water Quality Control Act include isolated waters that are no longer regulated by the ACOE. Developments with impact to jurisdictional waters must demonstrate compliance with the goals of the act by developing Stormwater Pollution Prevention Plans, Standard Urban Storm Water Mitigation Plans, and other measures to obtain a CWA Section 401 certification.

Section 1900: California Native Plant Protection Act

The California Native Plant Protection Act (NPPA)[4] was enacted in 1977 and includes measures to preserve, protect, and enhance endangered and rare native plants.[5] The list of native plants afforded protected by NPPA includes those listed as endangered and threatened under the California Endangered Species Act (CESA), and the NPPA definitions of endangered and rare differ from those contained in CESA. NPPA specifies that no person shall import into the State, or take, possess, or sell within this State any endangered or rare native plant, except in compliance with provisions of NPPA. Even where exceptions apply, individual landowners who have been notified by CDFW of the presence of a rare or endangered plant are required to notify CDFW at least 10 days before changing land uses to allow CDFW to salvage any endangered or rare native plant material.

Section 2800: California Endangered Species Act

The State enacted the California Endangered Species Act (CESA) in 1984.[6] CESA expands upon the original NPPA and enhanced legal protection for plants, but the NPPA remains part of the California Fish and Game Code. To align with ESA, CESA created categories of “threatened” and “endangered” species.

CESA prohibits the taking, importation, or sale of State-listed endangered or threatened species except in compliance with permits or conditions specified in CESA. CESA authorizes the CDFW to issue permits for

4 The Native Plant Protection Act (NPPA) of 1977 (Fish and Game Code Sections 1900–1913) directed the California Department of Fish and Game (CDFG; now CDFW) to carry out the Legislature's intent to “preserve, protect and enhance rare and endangered plants in this State.” The NPPA gave the California Fish and Game Commission the power to designate native plants as "endangered" or “rare” and protected endangered and rare plants from take.

5 California Fish and Game Code (CDFG), sec. 1900 et. seq.

6 California Endangered Species Act, CDFG, sec. 2050 et. seq.

incidental take of endangered or threatened species by general development activities, provided that (1) a proposed project will not jeopardize the continued existence of such species; and (2) any of the project's negative effects on those species will be minimized and fully mitigated. CESA also authorizes CDFW to enter into a memorandum of understanding with individual or organizations to import, export, take or possess species for scientific, educations, or management purposes.

Section 3500 et. Seq.

Sections 3500 et. seq.[7] of the California Fish and Game Code (CFGC) regulate the taking of migratory birds and their nests, including eggs and feathers. Disturbance that causes nest abandonment and/or loss of reproductive effort (killing or abandonment of eggs or young) may violate these sections, as well as and federal law protecting migratory birds.

The CFGC classifies some species as "fully protected," and "take" of these species is generally prohibited.[8] In 2011, legislation amended the CFGC to allow "take" of fully protected species covered under approved natural community conservation plans.

c. Local

City of Rancho Cucamonga

General Plan

The City's existing General Plan was adopted in 2010. The Resource Conservation Chapter guides the preservation, protection, conservation, re-use, replenishment, and efficient use of Rancho Cucamonga's limited natural resources that include water, open space, sensitive habitat, agricultural lands plus flora and fauna. The Wildlife Resources section of this chapter of the General Plan indicates that wildlife resources include "all of the plants and wildlife species located in natural areas, particularly in the hillsides and open space areas." Wildlife species, sensitive wildlife habitat areas, and wildlife protection efforts are addressed in this section of the General Plan. According to the City's General Plan, a portion of the USFS Conservation Area is within the RCA, as is the North Etiwanda Preserve.

A number of goals and policies in the Resource Conservation Chapter address biological resources in the City. These relevant goals and policies are listed in **Table 4.10-2** in **Section 4.10: Land Use and Planning** of this Draft EIR, along with the analysis of the consistency of the EHNCP with each goal and policy.

7 CDFG, sec. 3500–3516, div 4, Birds and Mammals, pt. 2, Birds, ch. 1, General Provisions.
8 CDFG, sec. 3511, 4700, 5050, and 5515.

Development Code

The City's tree preservation requirements are provided in Chapter 17.80, Tree Preservation, of the Development Code. The provisions in this Chapter are specifically intended to protect and expand the eucalyptus windrows but also apply to other heritage trees. This Chapter outlines the City's tree replacement policy for eucalyptus windrows and other heritage trees, and the protection of preserved, relocated, and new trees during construction. Section 17.16.080 of the Development Code outlines the City's review process for the removal of heritage trees, which are considered to be community resources. The provisions of this section apply to all heritage trees on all private property in the City, with certain exceptions. Heritage trees cannot be removed, relocated, or destroyed within City limits without first obtaining a Tree Removal Permit from the Planning Director. The tree removal application is typically submitted with the application for tentative subdivision maps or other proposals for urban development. The Planning Director has the discretion to approve, conditionally approve, or deny the application for a Tree Removal Permit and may impose conditions deemed necessary to implement the provisions of this section including, but not limited to, requiring the replacement of the removed tree or trees with tree(s) of species and quantity commensurate with the aesthetic value of the tree or trees removed, or requiring the relocation of trees on the property.

North Etiwanda Preserve Management Plan

The North Etiwanda Preserve Management Plan was developed in 2010 by the USFWS and CDFW (then the California Department of Fish and Game), in cooperation with the San Bernardino County Special Districts Department and the North Etiwanda Preserve Board of Directors, to manage and protect the North Etiwanda Preserve (USFWS and CDFG 2010). The North Etiwanda Preserve functions as a conservation area for the protection of wildlife habitat, and public access is allowed where compatible with the habitat conservation goals established by the North Etiwanda Preserve. The North Etiwanda Preserve was created in 1998 when the San Bernardino County Board of Supervisors accepted the approximate 760-acre conservation area as mitigation land from the San Bernardino Associated Governments in response to the potential impacts of the Foothill Freeway (I-210) EHNCP on the rare and threatened alluvial fan sage scrub.

A key component of the EHNCP is the selection of a qualified conservation entity (e.g., Inland Empire Resource Conservation District) to be the land manager for the RCA conservation properties. The selected conservation entity would manage the North Etiwanda Preserve pursuant to the terms of the North Etiwanda Preserve Management Plan. The Conservation Management Plan required to be established under the EHNCP would integrate the management of all conservation lands in the EHNCP. It is expected that the Land Manager would propose updating the management plan to include a restoration program

for the North Etiwanda Preserve. Funds for these and other restoration would come from NA development.

Existing Conditions

Fire History

The fire burn history within the NA and RCA includes the following fires: Archibald (1985), Morse (1957), Etiwanda (1964), East (1952), Foxborough (2008), Summit (1980), Texas (1988), Grand Prix (2003), and Etiwanda (2014). The most recent fires were the Grid Prix (2003) and Etiwanda (2014), both of which burned the majority of the NA and RCA sites, indicating that some areas have been recovering for approximately 16 years and other areas for approximately 5 years (**Figure 4.8-1: Fire History** of **Section 4.8: Hazards and Hazardous Materials**).

During this most recent Etiwanda fire, which occurred in spring of 2014 and substantially changed the characteristics of the vegetation communities present within the ENHCP Area, approximately 2,143 acres burned from April 30 to May 5, 2014. The fire extended outside the RCA to the north into Day Canyon and resulted in a much higher dominance of sparser and shorter vegetation. Due to the fire, vegetation characteristics are expected to transition rapidly over the next several years. The rate of vegetation recovery will depend on a variety of factors, such as the ability of the plants to re-sprout. A slower recovery is expected if the fire was of high intensity, which would kill a broad spectrum of shrubs regardless of re-sprouting abilities.

Topography/Soils

Elevations on the NA range from about 1,504 feet above mean sea level in the southeastern portion of the survey area to approximately 2,220 feet above mean sea level in the northwestern portion of the survey area. Elevations on the RCA range from about 1,504 feet above mean sea level in the southeastern portion to approximately 3,300 feet above mean sea level in the northwestern mountain ranges.

The topography of the RCA land is highly diverse. The NA generally slopes to the south in gentle fashion, while the RCA includes this same gentle sloping, but transitions along the northern boundary into more complex, steep topography associated with the San Gabriel Mountain foothills including with a number of ridges. Slopes within the RCA range between 5 percent to 7 percent. Together the slopes and moderate-to-steep elevation changes within the site provide for a highly diverse representation of physical and environmental conditions throughout the site.

Soils within the NA consist of Cieneba-rock outcrop complex, Tujunga gravelly loamy sand; Soboba stony loamy sand; psamments and fluvents; Ramona sandy loam; Hanford coarse sandy loam; Cieneba sandy

loam; water; riverwash; Trigo family-lithic xerorthents; Soboba-Hanford families association; Riverwash-Soboba families association, Sobaba gravelly loamy sand; Grangeville fine sandy loam; and Greenfield fine sandy loam (USDA 2016a). Soils on the RCA consists of Cieneba-rock outcrop complex, Tujunga gravelly loamy sand; Soboba stony loamy sand; psamments and fluvents; Ramona sandy loam; Hanford coarse sandy loam; Cieneba sandy loam; water; riverwash; Trigo family-lithic xerorthents; Soboba-Hanford families association; and Riverwash-Soboba families association (USDA 2016a).

Field Reconnaissance

Vegetation mapping and a jurisdictional delineation was completed for the NA. Vegetation mapping of the RCA was conducted in 2016 by aerial imagery provided by a drone flight, GIS interpretation, and through field verification; small mammal trapping was conducted on the NA and a small portion of the RCA in 2016. Dudek also conducted botanical surveys and coastal California gnatcatcher surveys on the NA and proposed Etiwanda Heights Preserve in 2017. Refer to **Appendix D: Biological Technical Report** for the Etiwanda Heights Neighborhood and Conservation Plan (Biological Report), for the detailed field reconnaissance methodology. Also, refer to Table 1 of the Biological Report (see **Appendix D**) lists the dates, conditions, and focus for each survey.

Plants and Wildlife

A total of 222 species of vascular plants—166 native species (75 percent) and 56 non-native species (25 percent)—were recorded during surveys on the NA and within the Etiwanda Heights Preserve in the RCA. All plant species observed during field surveys on the NA and within the Etiwanda Heights Preserve are listed in Appendix C of the Biological Report.

A total of 68 birds, 6 reptiles, 9 invertebrate, and 17 mammals were audibly detected or observed during surveys on the NA and within the Etiwanda Heights Preserve. Common bird species detected or observed include the native, red-tailed hawk (*Buteo jamaicensis*), northern mocking bird (*Mimus polyglottos*), California scrub-jay (*Aphelocoma californica*), California towhee (*Melozone crissalis*), and common raven (*Corvus corax*). The site provides ample burrowing and foraging habitat for lizards and snakes; common reptiles observed during field surveys included common side-blotched lizard (*Uta stansburiana*) and western fence lizard (*Sceloporus occidentalis*). Common invertebrates observed during field surveys included western pygmy-blue (*Brephidium exile*) butterfly and Bernardino square-spotted blue (*Euphilotes battoides Bernardino*). A total of 11 rodent species were captured during the small mammal trapping surveys. Mammals observed during other field surveys included California ground squirrel (*Spermophilus (Otospermophilus) beecheyi*) and desert cottontail (*Sylvilagus audubonii).* All wildlife species observed during field surveys on the NA and RCA are listed in Appendix D of the Biological Report.

Vegetation Community and Land Cover Mapping

Neighborhood Area

Vegetation mapping was conducted on the NA and proposed Etiwanda Heights Preserve by biologists in the field. A 200-scale (i.e., 200 feet = 1 inch) aerial photograph map (Google 2015) with an overlay of the NA and proposed Etiwanda Heights Preserve boundary was used to map vegetation communities. Following completion of the fieldwork, the vegetation boundaries as delineated by the field biologists were digitized to a create a GIS map of vegetation communities.

Rural/Conservation Area

Vegetation community and land cover mapping on the RCA was accomplished via a combination of aerial photograph interpretation and field-checking for accuracy. With a few exceptions, vegetation communities and land covers follow the List of Vegetation Alliances and Associations: Natural Communities List Arranged Alphabetically by Life Form (Natural Communities List; CDFG 2010b) based on A Manual of California Vegetation, 2nd edition (Sawyer et al. 2009), which is the California expression of the National Vegetation Classification Standard, Version 2 (FGDC 2008).

The mapping effort was conducted in three phases: (1) aerial photograph interpretation and delineation of vegetation community and land cover boundaries, (2) field-checking, and (3) quality assurance/quality control. These methods are described in more detail in the following text.

Refer to **Appendix D** for the detailed Vegetation Community and Land Cover Mapping methodology.

Jurisdictional Resource Evaluation

Jurisdictional Delineation

A delineation of jurisdictional waters was conducted within the NA and proposed Etiwanda Heights Preserve by biologists from June 23 to June 26 and June 29 to 30, 2015. The entire NA and proposed Etiwanda Heights Preserve was evaluated and was surveyed on foot for the following types of features:

- Waters of the United States, including wetlands, under the jurisdiction of ACOE, pursuant to Section 404 of the federal Clean Water Act
- Waters of the state under the jurisdiction of the California RWQCB, pursuant to Section 401 of the federal CWA and the Porter–Cologne Water Quality Control Act as wetlands or drainages
- Streambeds under the jurisdiction of CDFW, pursuant to Section 1602 of the California Fish and Game Code.

Hydrology Modeling

Dudek prepared a separate hydrology analysis to support the jurisdictional delineation process, as it pertains to identifying the ordinary high-water mark (OHWM). In conjunction with the field biological survey, these results can be used to supplement the data to refine the locations where flows still exist after the implementation of major flood control structures within the area. To identify what impacts the flood control facilities have on the current alluvial system, Dudek prepared an advanced hydrologic and hydraulic analysis using a 2-dimensional (2D) model of the entire site.

Refer to **Appendix D** for the detailed jurisdictional delineation and hydrology modeling methodology.

Botanical Surveys

Reference Population Check

On May 8, 2017, Dudek conducted reference population checks for federally and state-listed special-status plant species that had a potential to occur on site including slender-horned spineflower (Dodecahema leptoceras) and Santa Ana River woollystar (Eriastrum densifolium ssp. sanctorum). Data gathered from the reference population checks were used to confirm the appropriate time to begin field surveys.

Field Survey

Focused plant surveys were floristic in nature and conformed to the CNPS Botanical Survey Guidelines (CNPS 2001), Protocols for Surveying and Evaluating Impacts to Special Status Native Populations and Natural Communities (CDFG 2009), and the General Rare Plant Survey Guidelines (Cypher 2002). The plant species detected during the field surveys were identified to subspecies or variety, if applicable and feasible, to determine sensitivity status.

Coastal California Gnatcatcher Protocol-Level Surveys

Focused surveys for CAGN were performed within the NA and proposed Etiwanda Heights Preserve between May 11 and July 1, 2017, by Dudek's permitted biologists and independent investigators. The surveys were conducted following the currently accepted U.S. Fish and Wildlife Service (USFWS) coastal California gnatcatcher presence/absence survey protocol (USFWS 1997), using the breeding season survey methods. One survey was conducted outside of the breeding season on July 1, 2017. An email was sent to Stacey Love on June 28, 2017 stating that one survey would be conducted just outside the breeding season, as defined in USFWS (1997).

Small Mammal Trapping

Focused small mammal trapping was conducted between November 2015 and March 2016 for the federally endangered San Bernardino kangaroo rat (Dipodomys merriami parvus) within the NA and within the very southern portion of the RCA, the Etiwanda Heights Preserve. All trapping work was performed by biologists permitted for San Bernardino kangaroo rat by the U.S. Fish and Wildlife Service.

A habitat assessment occurred in October 2015 to determine the locations of the small mammal traps. The trapping occurred within suitable habitat (i.e., flat areas containing friable sandy soils with low shrub cover) present within the NA and the Etiwanda Heights Preserve (see **Figure 4.3-1: San Bernardino Kangaroo Rat Trapping Locations**). The trapping focused on areas that appeared to be the most suitable for San Bernardino kangaroo rat; however, trapping also occurred in areas judged by the biologists to have very marginal potential to corroborate the expectation that San Bernardino kangaroo rat are not present. Surveys were conducted in 41 areas, totally 4,500 trap nights. Traps were initially checked for captures near midnight and then checked again and closed the following morning. All animals were identified to species and released.

Survey Limitations

Surveys for special-status plant species were conducted in May/June and August 2017 within the NA and in the Etiwanda Heights Preserve. However, target species did not include CRPR 3 and 4 species and instead focused on special-status species that are federally or state listed or CRPR 1 or 2 species. All special-status species, including CRPR 3 and 4 species, were mapped if observed. The timing of the surveys coincided with the blooming period for all target species. Refer to **Appendix D** for the detailed botanical and wildlife survey methodology.

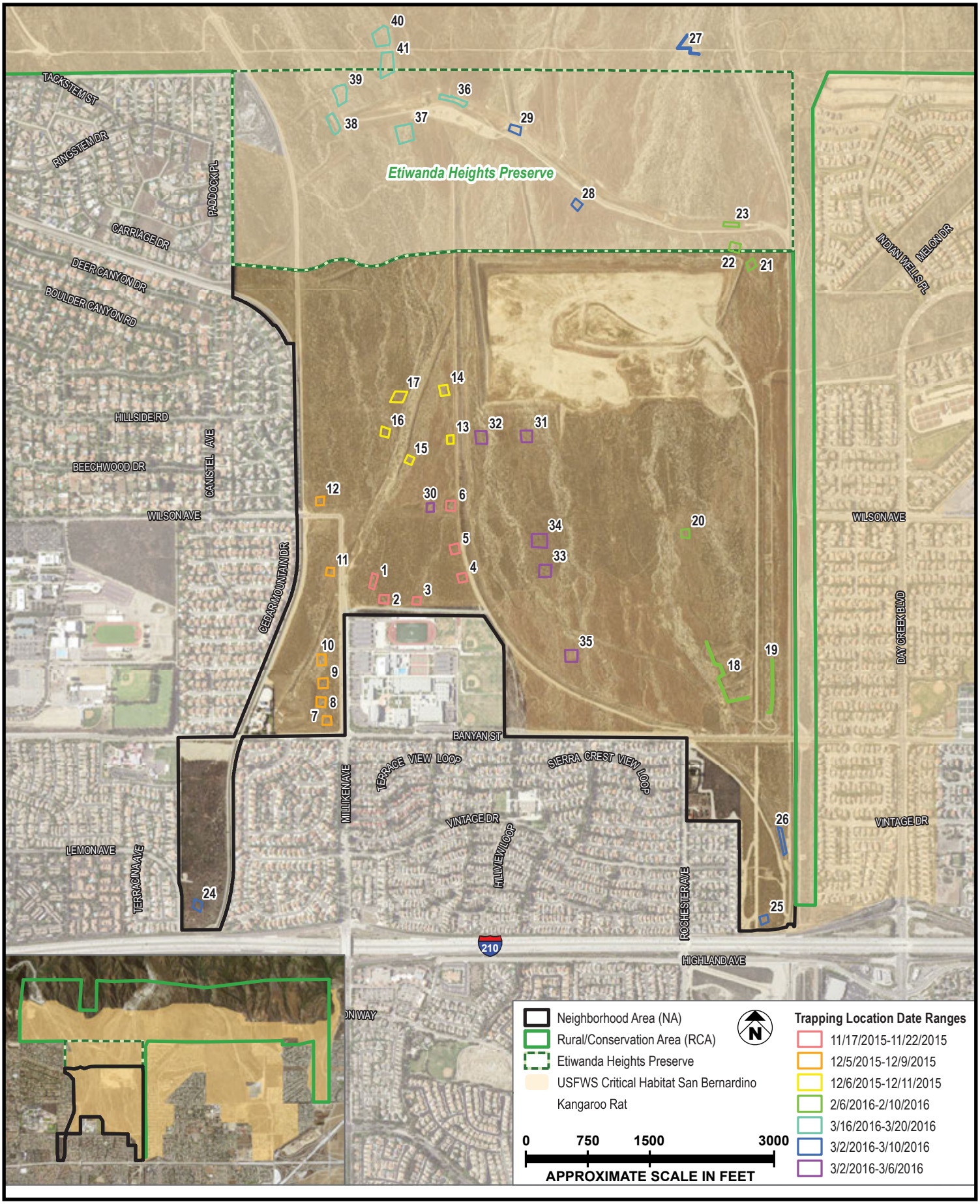
Vegetation Communities, Land Covers, and Floral Diversity

Vegetation mapping of the NA and proposed Etiwanda Heights Preserve was originally conducted in 2015. A total of 16 different vegetation communities and land cover types occur within the NA. Vegetation acreages are presented in **Table 4.3-1: Vegetation Communities and Land Cover Types within the Neighborhood Area**. Vegetation mapping of the RCA was conducted in 2016 by aerial interpretation, GIS analysis and field verification.

A total of 30 different vegetation communities and land cover types occur within the RCA and their acreages are presented in **Table 4.3-2: Vegetation Communities and Land Covers within the Rural/Conservation Area.** The spatial distribution of the vegetation communities and land covers on both the NA and RCA are presented on **Figures 4.3-2A** through **4.3-2F**: **Vegetation Communities and Land Cover Types,** and an overview of both areas is shown of **Figure 4.3-2: Vegetation Communities and Land Cover Mapping Overview**.

Table 4.3-1
Vegetation Communities and Land Cover Types within the Neighborhood Area

General Physiognomic Location	General Habitat	Habitat Types/Vegetation Communities[1]	Alliance	Association	Total Acreage
Scrub and chaparral	Coastal scrub	California buckwheat scrub	*Eriogonum fasciculatum*	(NA)	12.45
		California buckwheat-white sage scrub	*Eriogonum fasciculatum–Salvia apiana*	(NA)	2.77
		California sagebrush scrub	*Artemisia californica*	(NA)	60.16
		California sagebrush-California buckwheat	*Artemisia californica–Eriogonum fasciculatum*	(NA)	35.14
		California sagebrush-California buckwheat-white sage	*Artemisia californica–Eriogonum fasciculatum*	*Artemisia californica–Eriogonum fasciculatum–Salvia apiana*	31.42
		Scale broom scrub (includes disturbed)[2]	*Lepidospartum squamatum*	(NA)	373.20
		White sage scrub[2]	*Salvia apiana*	(NA)	3.01
	Undifferentiated Chaparral scrub	Chamise chaparral	*Adenostoma fasciculatum*	(NA)	15.74
		Hoary leaf ceanothus–chamise	*Ceanothus crassifolius*	*Ceanothus crassifolius–Adenostoma fasciculatum*	119.56
	Mountain mahogany woodlands and scrubs	Birch leaf mountain mahogany chaparral	*Cercocarpus montanus*	(NA)	4.97
				Scrub and chaparral subtotal[3]	*658.41*
Disturbed and developed	Disturbed and developed	Urban/Developed	(NA)	(NA)	39.15
		Disturbed Habitat	(NA)	(NA)	130.25
				Disturbed and developed subtotal[3]	*169.40*
				Total[3]	**827.82**



SOURCE: DUDEK - 2019; Sargent Town Planning - 2019

FIGURE **4.3-1**

San Bernardino Kangaroo Rat Trapping Locations

Meridian Consultants

072-004-18

Table 4.3-2
Vegetation Communities and Land Covers within the Rural/Conservation Area

General Physiognomic Location	General Habitat	Vegetation Community or Land Cover Type[1]	Alliance	Association	Total Acres
Scrub and chaparral	Coastal scrub	California buckwheat scrub	*Eriogonum fasciculatum*	(NA)	72.46
		California buckwheat–white sage scrub	*Eriogonum fasciculatum–Salvia apiana*	(NA)	111.84
		California sagebrush scrub	*Artemisia californica*	(NA)	137.80
		California sagebrush–California buckwheat	*Artemisia californica–Eriogonum fasciculatum*	(NA)	312.15
		California sagebrush–California buckwheat–white sage	*Artemisia californica–Eriogonum fasciculatum*	*Artemisia californica–Eriogonum fasciculatum–Salvia apiana*	88.80
		Deer weed scrub	*Lotus scoparius*	(NA)	41.35
		Hairy yerba santa scrub	(NA)	(NA)	7.59
		Hairy yerba santa–white sage scrub	(NA)	(NA)	71.08
		Pinebush scrub	(NA)	(NA)	9.04
		Scale broom scrub[2]	*Lepidospartum squamatum*	(NA)	541.62
		White sage scrub[2]	*Salvia apiana*	(NA)	52.94
		White sage–California sagebrush[2]	*Salvia apiana*	*Salvia apiana-Artemisia californica*	16.75
		White sage–California buckwheat[2]	(NA)	(NA)	179.47
	Undifferentiated Chaparral scrub	Chamise chaparral	*Adenostoma fasciculatum*	(NA)	135.05

General Physiognomic Location	General Habitat	Vegetation Community or Land Cover Type[1]	Alliance	Association	Total Acres
		Chamise–California buckwheat	*Adenostoma fasciculatum*	*Adenostoma fasciculatum–Eriogonum fasciculatum*	542.76
		Chamise–California buckwheat–white sage	*Adenostoma fasciculatum–Salvia apiana*	*Adenostoma fasciculatum–Eriogonum fasciculatum–Salvia apiana*	92.00
		Chamise–white sage	*Adenostoma fasciculatum–Salvia apiana*	*Adenostoma fasciculatum–Salvia apiana*	4.81
		Chaparral whitethorn chaparral	*Ceanothus leucodermis*	(NA)	64.33
		Hoaryleaf ceanothus chaparral (disturbed)	*Ceanothus leucodermis*	(NA)	0.77
		Hoaryleaf ceanothus–chamise	*Ceanothus crassifolius*	*Ceanothus crassifolius–Adenostoma fasciculatum*	373.82
	Mountain mahogany woodlands and scrubs	Birchleaf mountain mahogany chaparral	*Cercocarpus montanus*	(NA)	5.13
		Birchleaf mountain mahogany–chamise	*Cercocarpus montanus*	*Cercocarpus montanus–Adenostoma fasciculatum*	62.05
		Birchleaf mountain mahogany–California buckwheat	*Cercocarpus montanus*	*Cercocarpus montanus–Eriogonum fasciculatum*	60.25
				Scrub and chaparral subtotal	*2,983.90*
Grass- and herb-dominated communities	Non-native grassland	Mediterranean California naturalized annual and perennial grassland	(NA)	(NA)	187.57
				Grass- and herb-dominated communities subtotal	*187.57*

General Physiognomic Location	General Habitat	Vegetation Community or Land Cover Type[1]	Alliance	Association	Total Acres
Broadleaved upland tree dominated	Eucalyptus naturalized forest	Eucalyptus groves	Eucalyptus (*globulus, camaldulensis*)	(NA)	2.82
				Broadleaved upland tree dominated subtotal	*2.82*
Riparian and bottomland habitat	Riparian forest and woodland	California sycamore woodlands[2]	*Platanus racemose*	(NA)	188.28
		California sycamore–coast live oak[2]	*Platanus racemose*	*Platanus _racemosa–Quercus agrifolia*	9.96
				Riparian and bottomland habitat subtotal	*198.24*
Disturbed and developed	Disturbed and developed	Disturbed habitat	(NA)	(NA)	164.76
		Urban/developed	(NA)	(NA)	20.18
	Ruderal	Ruderal	(NA)	(NA)	8.06
				Disturbed and developed subtotal	*193.00*
Total[3]					**3,565.54**

In September 2010, CDFW published the Natural Communities List (CDFG 2010b), which uses the scientific name of the dominant species in that alliance as the alliance name and includes a global and state rarity rank based on the NatureServe Standard Heritage Program methodology (NatureServe 2016). The conservation status of a vegetation community is designated by a number from 1 to 5 preceded by a letter reflecting the appropriate geographic scale of the assessment (G=global, N=national, and S=subnational). The numbers have the following meaning (NatureServe 2015):

1 = critically imperiled
2 = imperiled
3 = vulnerable to extirpation or extinction
4 = apparently secure
5 = demonstrably widespread, abundant, and secure

For example, a rank of G1 would indicate that a vegetation community is critically imperiled across its entire range (i.e., globally). A rank of S3 would indicate the vegetation community is vulnerable and at **Figure 4.3-2A: Vegetation Communities and Land Cover Mapping Overview**.

moderate risk within a particular state or province, although it may be more secure elsewhere (NatureServe 2015). Because NatureServe ranks vegetation communities at the global level, they have few rankings at the state or province level available. However, the Natural Communities List (CDFG 2010b) includes state-level rarity rankings (i.e., the subnational (S) rank) for vegetation communities. The Natural Communities List (CDFG 2010b) is considered the authority for ranking the conservation status of vegetation communities in California.

CDFW's guidelines for determining high-priority vegetation types include considering any communities listed with a ranking of S1 to S3 and ascertaining whether the specific stands of the community type within the study area are "considered as high-quality occurrences of a given community" (CDFW 2017a). The consideration of stand quality includes cover of non-native invasive species, human-caused disturbance, reproductive viability, and insect or disease damage (CDFW 2017a).

A Manual of California Vegetation (2nd edition) (Sawyer et al. 2009) was used as an additional reference to help determine characteristics (such as percentage of species cover) of various classifications. Vegetation communities considered special status are those with an "S" ranking of 1, 2, or 3 (CDFG 2010b).

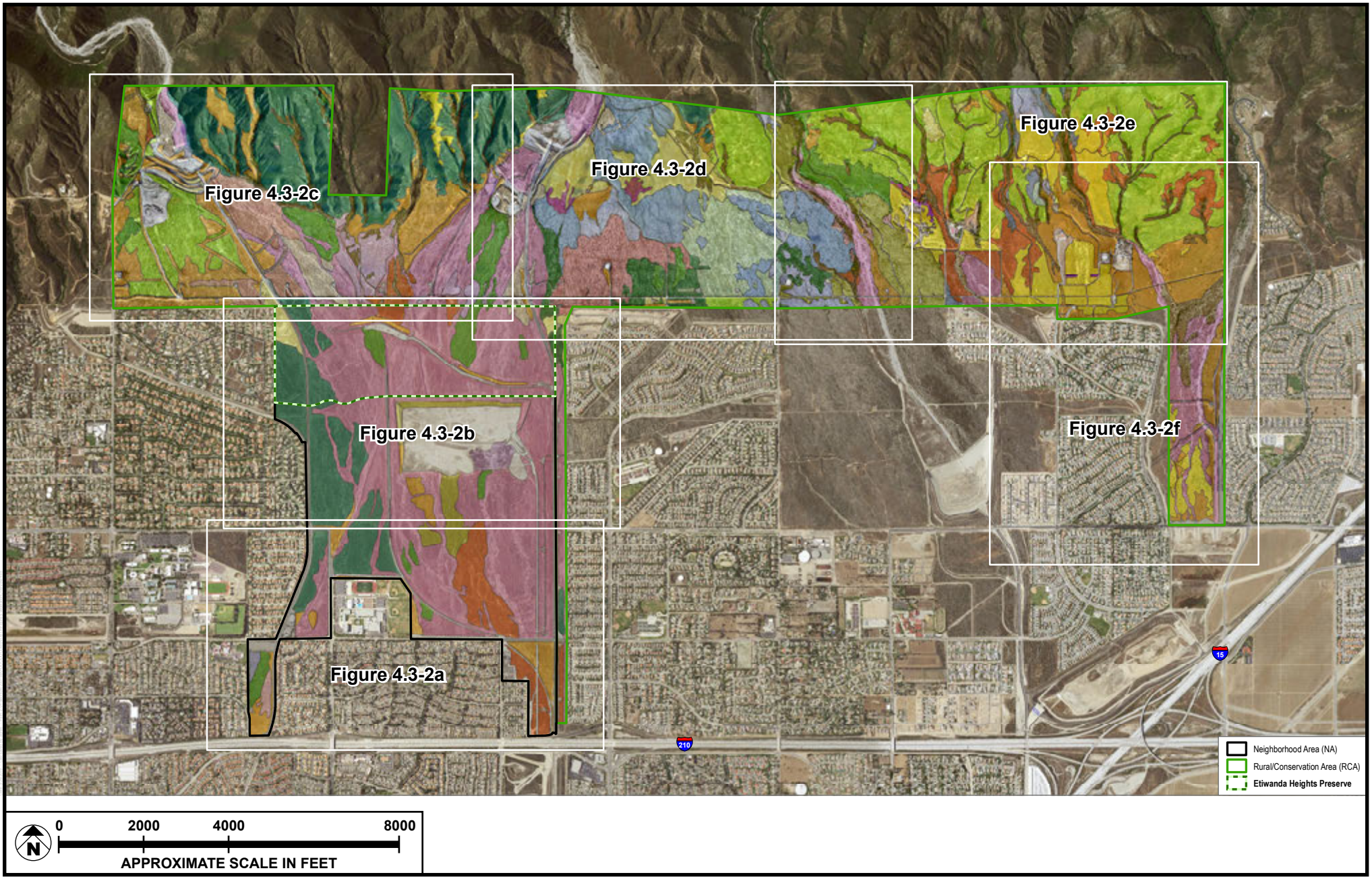
The NA contains two vegetation communities identified as sensitive by CDFW (CDFG 2010b): (1) scale broom scrub and (2) white sage scrub. The RCA contains seven vegetation communities identified as sensitive by CDFW: (1) scale broom scrub; (2) white sage scrub; (3) white sage–California sagebrush; (4) white sage–California buckwheat; (5) chamise-white sage (6) California sycamore woodlands; and *7) California sycamore–coast live oak (CDFG 2010b).

Scale broom scrub alliance is ranked by CDFW as a G3S3 alliance, white sage scrub alliance and its associations are ranked by CDFW as a G4S3 alliance, chamise-white sage alliance is ranked by CDFW as a G3S3 alliance, and California sycamore woodlands and its associations are ranked by CDFW as G3S3 (CDFG 2010b). Therefore, these alliances meet the definition of a sensitive natural community under the California Environmental Quality Act (CEQA) guidelines (14 CCR 15000 et seq.). A brief description of the sensitive vegetation communities within the EHNCP Area is provided in the following text.

Coastal Scrub

California Buckwheat Scrub Alliance (32.040.00)

The California buckwheat scrub or *Eriogonum fasciculatum* alliance is recognized by the Natural Communities List and is ranked as a G5S5 alliance (CDFG 2010b). California buckwheat scrub alliance communities include California buckwheat (*Eriogonum fasciculatum*) as the dominant or codominant shrub in the canopy. This alliance occurs on relatively gentle, south-facing lower slopes and toe-slopes.



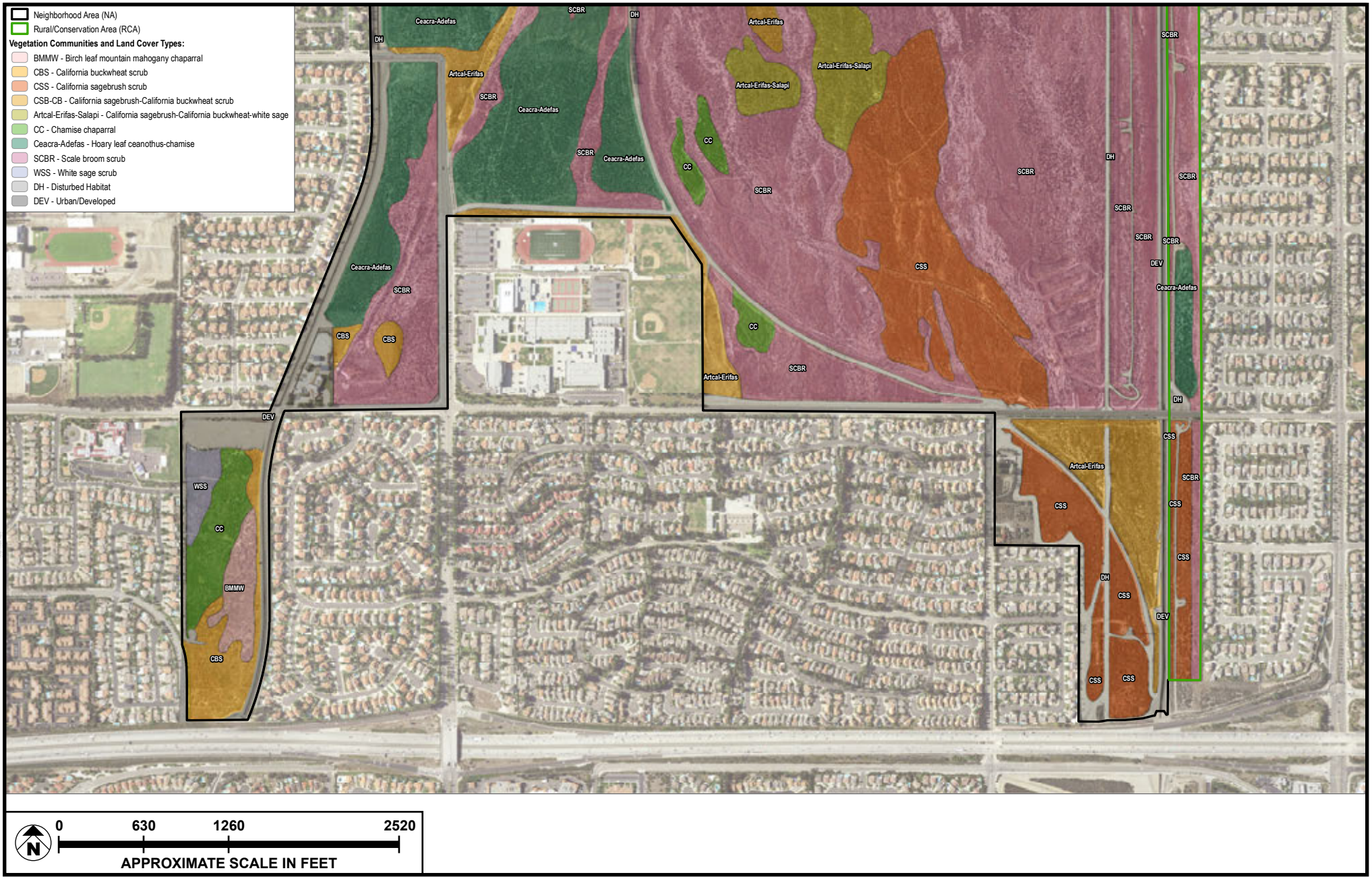
SOURCE: DUDEK - 2019; Sargent Town Planning - 2019

FIGURE **4.3-2**

Meridian Consultants

Vegetation Communities and Land Cover Mapping Overview

072-004-18



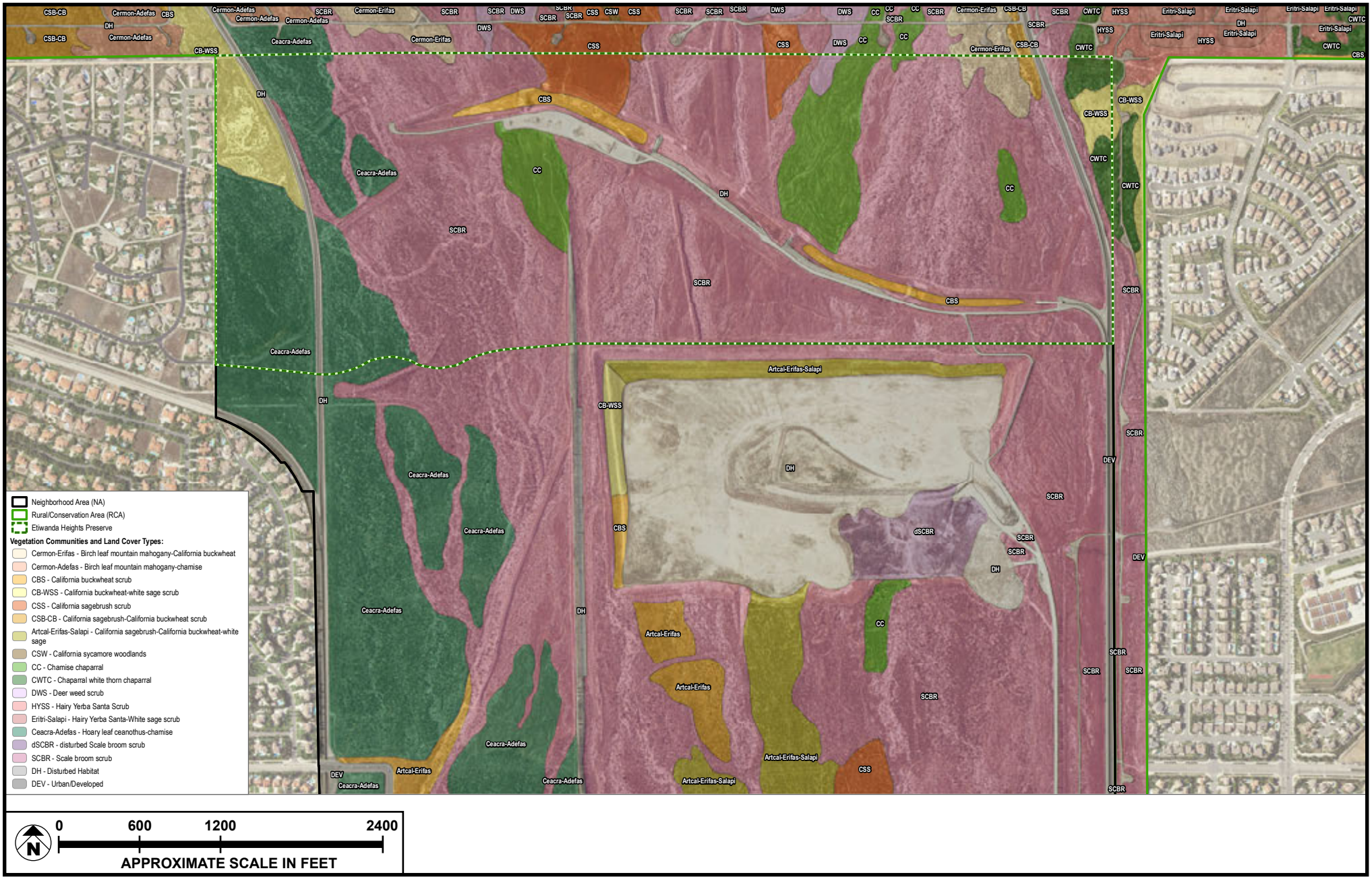
SOURCE: DUDEK - 2019; Sargent Town Planning - 2019

FIGURE **4.3-2a**

Meridian Consultants

Vegetation Communities and Land Cover Types

072-004-18



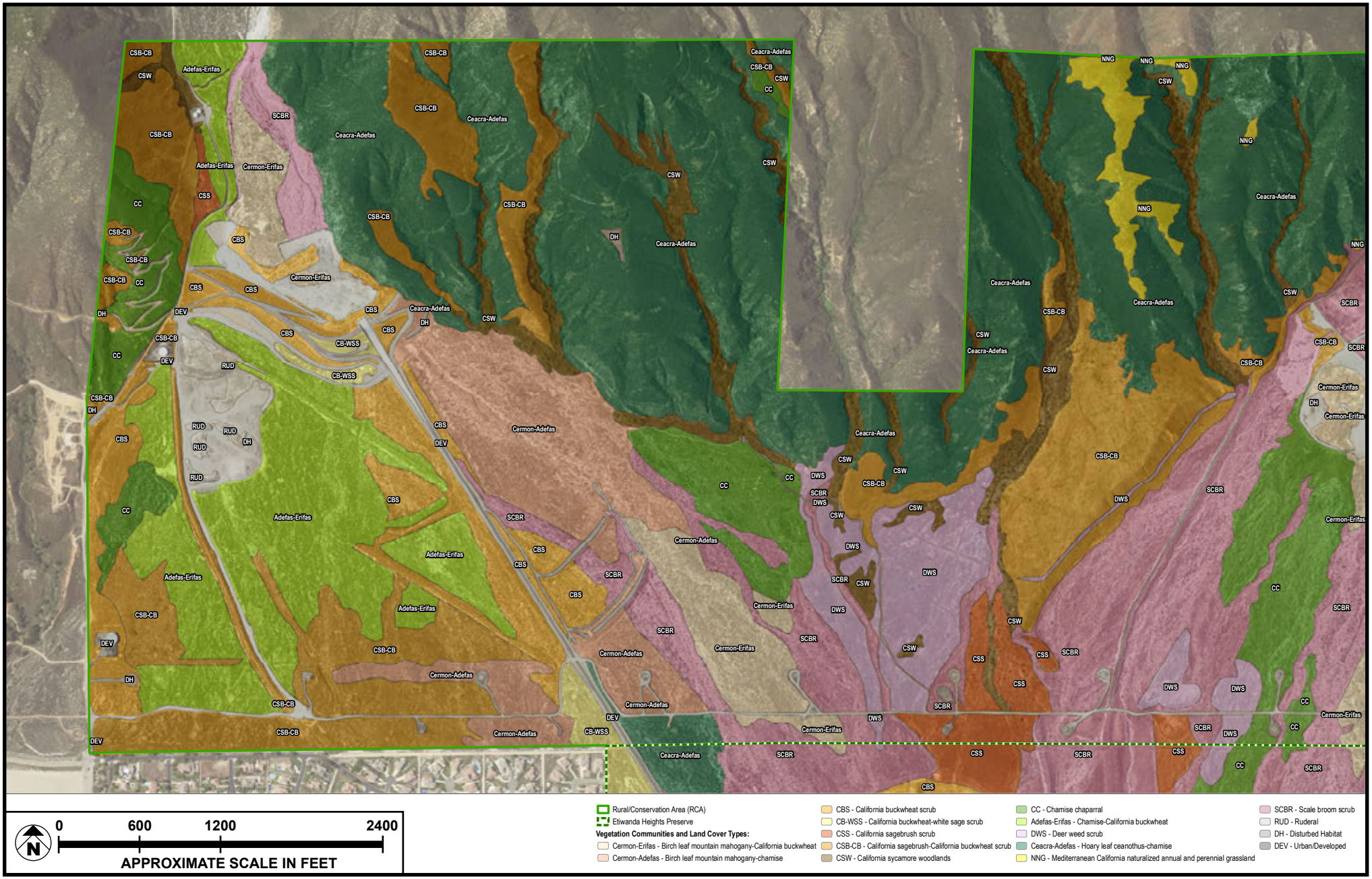
SOURCE: DUDEK - 2019; Sargent Town Planning - 2019

FIGURE **4.3-2b**

Meridian Consultants

Vegetation Communities and Land Cover Types

072-004-18



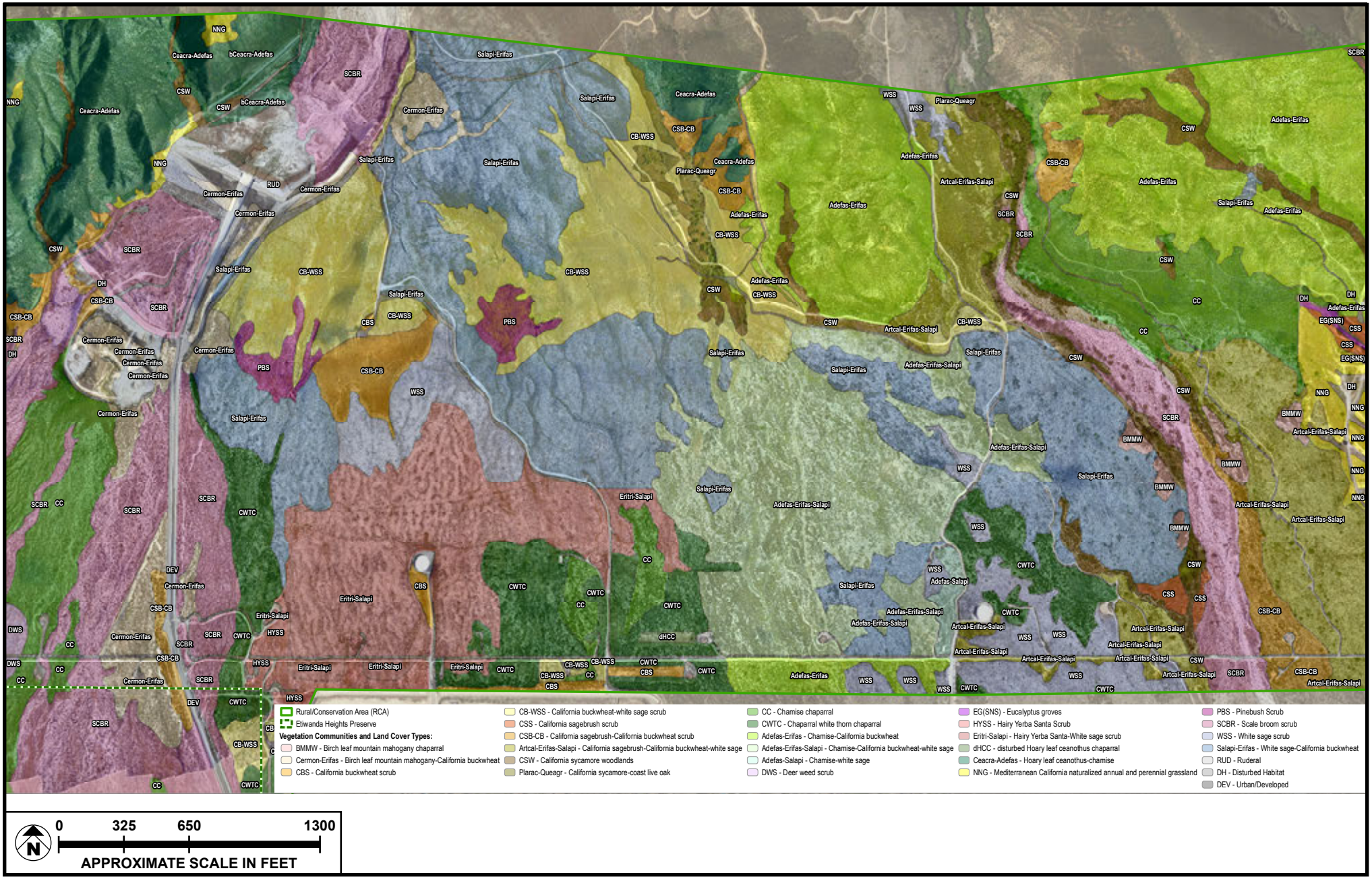
SOURCE: DUDEK - 2019; Sargent Town Planning - 2019

FIGURE **4.3-2c**

Meridian Consultants

Vegetation Communities and Land Cover Types

072-004-18



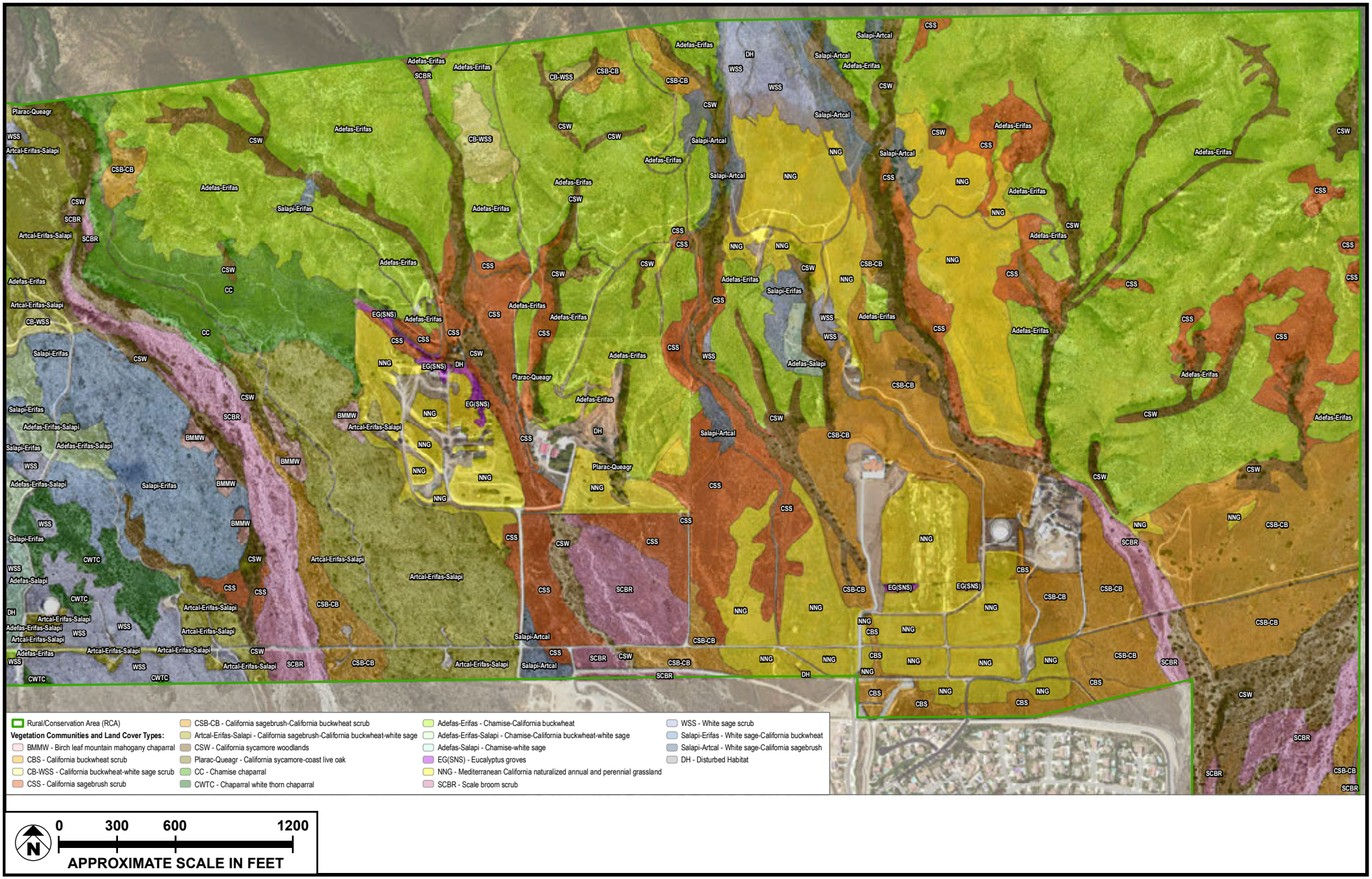
SOURCE: DUDEK - 2019; Sargent Town Planning - 2019

FIGURE **4.3-2d**

Meridian Consultants

Vegetation Communities and Land Cover Types

072-004-18



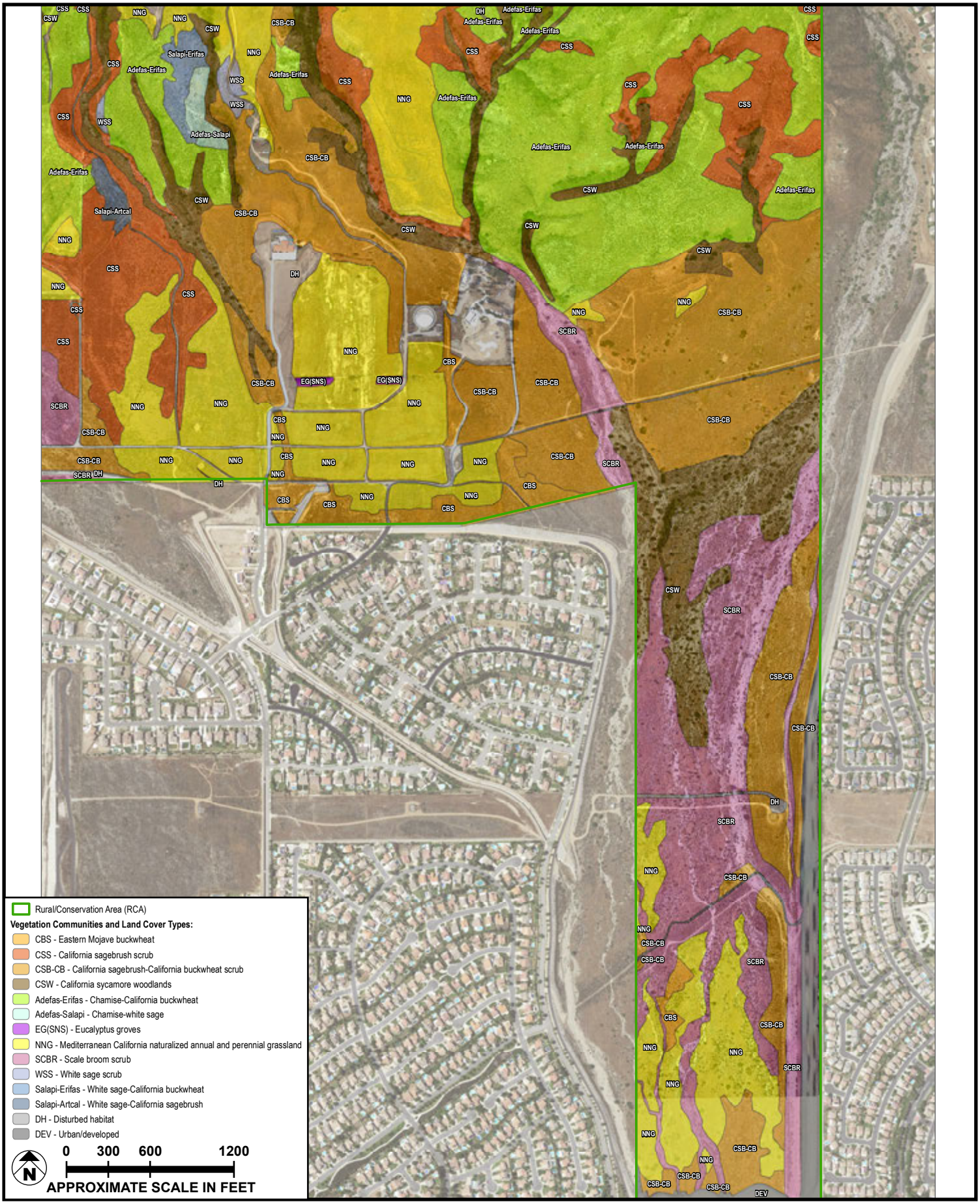
SOURCE: DUDEK - 2019; Sargent Town Planning - 2019

FIGURE **4.3-2e**

Meridian Consultants

Vegetation Communities and Land Cover Types

072-004-18



SOURCE: DUDEK - 2019; Sargent Town Planning - 2019

FIGURE **4.3-2f**

Meridian Consultants

Vegetation Communities and Land Cover Types

072-004-18

The California buckwheat scrub alliance occupies mostly shallow and moderately deep, well-drained and somewhat excessively drained soils. Species associated with the California buckwheat scrub alliance within the Plan Area include California sagebrush (*Artemisia californica*), deer weed (*Acmispon glaber*), and white sage (*Salvia apiana*) (Sawyer et al. 2009). California buckwheat scrub occurs in a total of 12.45 acres in multiple areas throughout the NA but mainly within the southwestern parcel. A total of 72.46 acres of California buckwheat scrub occurs within the RCA.

California Buckwheat–White Sage Scrub Alliance (32.100.00)

The California buckwheat–white sage scrub alliance is recognized by the Natural Communities List and is ranked as a G4S4 alliance (CDFG 2010b). California buckwheat–white sage scrub alliance communities include California buckwheat and white sage as codominant shrubs in the canopy.

On-site species associated with the California buckwheat–white sage scrub alliance include California buckwheat, white sage, pinebush (Ericameria pinifolia), and California croton (Croton californicus). California buckwheat–white sage scrub occurs mainly within the northeastern corner of NA, with one area centrally located for a total of 2.77 acres. A total of 111.84 acres of California buckwheat–white sage scrub alliance occurs within the RCA.

California Sagebrush Scrub Alliance (32.010.00)

The California sagebrush scrub alliance is recognized by the Natural Communities List and is ranked as a G5S5 alliance (CDFG 2010b). California sagebrush scrub alliance communities include California sagebrush as the dominant or codominant shrub in the canopy. The California sagebrush scrub alliance often occurs on steep, north-facing slopes and rarely flooded low-gradient deposits along streams in shallow alluvial or colluvial-derived soils (Sawyer et al. 2009).

On-site species associated with the California sagebrush scrub alliance include hairy yerba santa (Eriodictyon trichocalyx), chamise (Adenostoma fasciculatum), white sage, and scale broom (Lepidospartum squamatum). California sagebrush scrub is the most dominant vegetation community totaling 60.16 acres in the southeastern portion of the NA with two smaller areas along the northern boundary. A total of 137.80 acres of California sagebrush scrub alliance occurs within the RCA.

California Sagebrush–California Buckwheat Scrub Alliance (32.110.00)

The California sagebrush–California buckwheat scrub alliance is recognized by the Natural Communities List and is ranked as a G4S4 alliance (CDFG 2010b). California sagebrush–California buckwheat scrub alliance communities include California sagebrush and California buckwheat as codominant shrubs in the canopy.

On-site species associated with the California sagebrush–California buckwheat scrub alliance include pinebush, hairy yerba santa, and white sage. California sagebrush–California buckwheat scrub comprises 35.14 acres and occurs along the southern boundary of the NA. A total of 312.15 acres of California sagebrush–California buckwheat scrub alliance occurs within the RCA.

California Sagebrush–California Buckwheat-White Sage Association (32.110.02)

The California sagebrush–California buckwheat-white sage association is recognized by the Natural Communities List and is ranked as a G4S4 within the California sagebrush–California buckwheat alliance (CDFG 2010b). California sagebrush–California buckwheat–white sage scrub association communities include California sagebrush, California buckwheat, and white sage as codominant shrubs in the canopy. California sagebrush–California buckwheat–white sage scrub occurs on slopes that are steep south-facing, sometimes boulder, as well as intermittently flooded channels and washes, and rarely flooded low-gradient deposits (Sawyer et al. 2009).

On-site species associated with the California sagebrush–California buckwheat–white sage scrub alliance include California sagebrush, California buckwheat, white sage, chaparral yucca (*Hesperoyucca whipplei*), deer weed, birch leaf mountain mahogany (*Cercocarpus betuloides*), and scale broom. California sagebrush–California buckwheat–white sage scrub comprises 31.42 acres and occurs in three separate areas located centrally within the NA. A total of 88.80 acres of California sagebrush–California buckwheat–white sage association occurs within the RCA.

Deer Weed Scrub Alliance (52.240.00)

The deer weed scrub alliance is not recognized by the List of Terrestrial Natural Communities (CDFG 2003) but is included on the Natural Communities List and is ranked as a G5S5 alliance (CDFG 2010b). Deer weed scrub alliance communities include common deer weed as dominant or codominant in the canopy. The deer weed scrub alliance occurs throughout most of the western portion of California from 25 to 1,500 meters (82 to 4,921 feet above mean sea level). This alliance occurs in areas that have recently been disturbed by clearing, fire, intermittent flooding, or other disturbances (Sawyer et al. 2009).

Some species associated with the deer weed scrub alliance include chamise, California sagebrush, coyote brush (*Baccharis pilularis*), California brittle bush (*Encelia californica*), California buckwheat, and white sage (Sawyer et al. 2009). A total of 41.35 acres of deer weed scrub alliance occurs within the RCA.

Hairy Yerba Santa Scrub

Hairy yerba santa scrub is not recognized by *A Manual of California Vegetation* (Sawyer et al. 2009) or by CDFW (CDFG 2010b). Hairy yerba santa scrub occurs mainly within the central portions of the RCA within the North

Etiwanda Preserve. This early successional community is the result of the 2014 Etiwanda Fire. A total of 7.59 acres of hairy yerba santa scrub occurs within the RCA.

Hairy Yerba Santa–White Sage Scrub

Hairy yerba santa–white sage scrub is not recognized by *A Manual of California Vegetation* (Sawyer et al. 2009) or by CDFW (CDFG 2010b). Hairy yerba santa–white sage scrub is dominated by shrubs, hairy yerba santa, and white sage, and occurs mainly within the central portion of the RCA within the North Etiwanda Preserve. This early successional community is the result of the 2014 Etiwanda Fire. A total of 71.08 acres of hairy yerba santa–white sage scrub occurs within the RCA.

Pinebush Scrub

Pinebush scrub is not recognized by *A Manual of California Vegetation* (Sawyer et al. 2009) or by CDFW (CDFG 2010b). This community is dominated by the pinebush. This community occurs in two small patches within the central portion of the North Etiwanda Preserve, within the RCA, totaling only 9.04 acres.

Scale Broom Scrub Alliance (32.070.00)

Scale broom scrub or *Lepidospartum squamatum* alliance is recognized by the Natural Communities List and is ranked as a G3S3 alliance (CDFG 2010b). Scale broom scrub alliance communities typically include at least 1 percent cover of scale broom. Scale broom scrub is found on alluvial terraces, flats, sand bars, intermittently flooded drainages, and floodplains with sandy soils, boulders, and cobbles. Intermittent flooding is necessary to recharge ground water and maintain soil moisture and scale broom scrub is restricted to these areas. This association is ranked as a high priority for inventory and is therefore considered sensitive by CDFW (CDFG 2010b).

On-site species associated with the scalebroom scrub alliance include chamise, hoaryleaf ceanothus (*Ceanothus crassifolius*), California buckwheat, birch leaf mountain mahogany, chaparral whitethorn (*Ceanothus leucodermis*), chaparral yucca, spiny redberry (*Rhamnus crocea*), hairy yerba santa, white sage, and California sagebrush. Scalebroom scrub occurs throughout much of the site and is the most dominant vegetation community in the NA, representing 373.20 acres. A total of 541.62 acres of scalebroom scrub occurs within the RCA.

White Sage Scrub Alliance (32.030.00)

White sage scrub alliance is recognized by the Natural Communities List and is ranked as a G4S3 alliance (CDFG 2010b). White sage scrub alliance communities typically include white sage as a dominant or codominant shrubs in the canopy. White sage scrub is found on dry slopes, benches, and rarely flooded low-gradient deposits along

streams. This association is ranked as a high priority for inventory and is therefore considered sensitive by CDFW (CDFG 2010b).

On-site species associated with the white sage scrub alliance include chamise, spiny redberry, and hairy yerba santa. White sage scrub represents one of the smallest vegetation communities on site and occurs only in one area within the southwestern portion of the NA, totaling 3.01 acres. A total of 52.94 acres of white sage scrub alliance occurs within the RCA.

White Sage Scrub–California Sagebrush Association (32.030.01)

White sage scrub–California Sagebrush association is recognized by the Natural Communities List and is ranked G4S3 within the white sage scrub alliance (CDFG 2010b). White sage scrub–California Sagebrush alliance communities typically include white sage and California sagebrush as codominant shrubs in the canopy. This association is ranked as a high priority for inventory and is therefore considered sensitive by CDFW (CDFG 2010b). A total of 16.75 acres of white sage scrub-California sagebrush association occurs within the RCA.

White Sage Scrub–California Buckwheat Association (32.100.00)

The white sage scrub-California buckwheat association is ranked as G4S3 and is an association of the white sage scrub alliance. The white sage–California buckwheat association is not recognized by CDFG (2010); however, it is mentioned in *A Manual of California Vegetation* (Sawyer et al. 2009). This association is ranked as a high priority for inventory and is therefore considered sensitive by CDFW (CDFG 2010b). A total of 179.47 acres of white sage scrub–California buckwheat association occurs within the RCA.

Undifferentiated Chaparral Scrub

Chamise Chaparral Alliance (37.101.00)

The chamise chaparral or *Adenostoma fasciculatum* alliance is recognized by the Natural Communities List and is ranked as a G5S5 alliance (CDFG 2010b). The alliance occurs mostly on moderately xeric, upper and middle slopes with east-, south-, or west-facing exposures of varied steepness. The alliance is found mostly on shallow or deep sandy loams and loamy sands over fractured bedrock, colluvium, and sometimes shale.

Chamise chaparral is dense with a very sparse understory (Cheng 2004) and has an average chamise cover of 77 percent with many co-occurring species, including deer weed, chaparral yucca, chaparral whitethorn, California buckwheat, and California sagebrush. Chamise chaparral comprises 15.74 acres and

occurs in multiple areas throughout the NA. A total of 135.05 acres of chamise chaparral alliance occurs within the RCA.

Chamise–California Buckwheat Association (37.101.14)

Chamise–California buckwheat is an association of the chamise chaparral alliance. Chamise and California buckwheat occurs at higher elevations within the foothills throughout the RCA. A total of 542.76 acres of chamise–California buckwheat association occurs within the RCA.

Chamise–California Buckwheat–White Sage Association (37.103.03)

Chamise–California buckwheat–white sage association is recognized by the Natural Communities List and is ranked as a G3S3 within the chamise-white sage alliance. This community occurs within the burned areas of the North Etiwanda Preserve, within the RCA, and totals 92.00 acres.

Chamise–White Sage Alliance (37.103.00)

The chamise–white sage alliance is recognized by the Natural Communities List and is ranked as a G3S3 alliance (CDFG 2010b). This association is ranked as a high priority for inventory and is therefore considered sensitive by CDFW (CDFG 2010b). A total of 4.81 acres of chamise–white sage alliance occurs within the RCA.

Chaparral Whitethorn Chaparral Alliance (37.205.00)

The chaparral whitethorn chaparral or *Ceanothus leucodermis* alliance is recognized by the Natural Communities List and is ranked as a G4S4 alliance (CDFG 2010b). This alliance is dominated by chaparral whitethorn. Chaparral whitethorn chaparral includes pinebush, California buckwheat, spiny redberry, hairy yerba santa, white sage, and California sagebrush. A total of 63.33 acres of chaparral whitethorn chaparral alliance occurs within the RCA.

Hoary Leaf Ceanothus Chaparral Alliance (37.208.00)

The hoary leaf ceanothus chaparral or *Ceanothus crassifolius* alliance is recognized by the Natural Communities List and is ranked as a G4S4 alliance (CDFG 2010b). This alliance is dominated by hoary leaf ceanothus and has an intermittent to continuous canopy layer with an open ground layer. A total of 0.77 acres of disturbed hoary leaf ceanothus chaparral alliance occurs within the RCA.

Hoary Leaf Ceanothus–Chamise Association (37.208.02)

The hoary leaf ceanothus–chamise chaparral association is recognized by the Natural Communities List and is ranked as a G4S4 within the hoaryleaf ceanothus alliance (CDFG 2010b). Hoary leaf ceanothus–chamise chaparral association communities typically include chamise and hoaryleaf ceanothus as codominant shrubs in the canopy.

On-site species associated with the hoaryleaf ceanothus–chamise chaparral association include chamise, hoaryleaf ceanothus, California buckwheat, birch leaf mountain mahogany, spiny redberry, hairy yerba santa, white sage, and California sagebrush. Hoaryleaf ceanothus–chamise chaparral is found on 119.56 acres and occurs throughout much of western half of the NA. A total of 373.82 acres of hoaryleaf ceanothus–chamise association occurs within the RCA.

Mountain Mahogany Woodlands and Scrubs

Birch Leaf Mountain Mahogany Chaparral Alliance (76.100.00)

The birch leaf mountain mahogany chaparral or *Cercocarpus betuloides* alliance is recognized by the Natural Communities List and is ranked as a G5S4 alliance (CDFG 2010b). Birch leaf mountain mahogany alliance communities include birch leaf mountain mahogany as the dominant or codominant with other shrubs including California buckwheat, chamise, and bigberry manzanita (*Arctostaphylos glauca*). Birch leaf mountain mahogany occurs on all aspects of upper slopes, rocky alluvium, ridges, and rarely flooded, rocky outcrops.

On-site species associated with the birch leaf mountain mahogany chaparral include chamise, white sage, and California buckwheat. Birch leaf mountain mahogany occurs in only one area within the southwestern corner of the NA occupying 4.97 acres. A total of 5.13 acres of birch leaf mountain mahogany chaparral alliance occurs within the RCA.

Birch Leaf Mountain Mahogany–Chamise Association (76.100.06)

The birch leaf mountain mahogany–chamise association is recognized by the Natural Communities List and is ranked as a G5S4 within the birchleaf mountain mahogany alliance (CDFG 2010b). This association is dominated by birch leaf mountain mahogany and chamise. A total of 62.05 acres of birch leaf mountain mahogany–chamise association occurs within the RCA.

Birch Leaf Mountain Mahogany–California Buckwheat Association (37.600.01)

The birch leaf mountain mahogany–California buckwheat association is recognized by the Natural Communities List and is ranked as a G5S4 within the birch leaf mountain mahogany alliance (CDFG 2010b). This

association is dominated by birch leaf mountain mahogany and California buckwheat. A total of 60.25 acres of birch leaf mountain mahogany–California buckwheat association occurs within the RCA.

Non-native Grassland

Mediterranean California Naturalized Annual and Perennial Grassland (42.024.00)

The Mediterranean California naturalized annual and perennial grassland alliance is recognized by the Natural Communities List and is not ranked (CDFG 2010b). This vegetation community is dominated by red brome (*Bromus madritensis* ssp. *rubens*), Arabian schismus (*Schismus arabicus*), and/or common Mediterranean grass (*Schismus barbatus*) with an intermittent to continuous cover.

This vegetation community occurs primarily within the eastern portions of the RCA, with a few smaller patches occurring along the northern boundary within the higher elevations of the foothills. A total of 187.57 acres of Mediterranean California naturalized annual and perennial grassland occurs within the RCA. This seminatural stand[9] is not considered a sensitive biological resource by CDFW under CEQA (CDFG 2010b).

Eucalyptus Naturalized Forest

Eucalyptus Groves Alliance (79.100.00)

The eucalyptus grove alliance is recognized by the Natural Communities List and is not ranked (CDFG 2010b) and is not a California native species. This alliance is dominated by river redgum (*Eucalyptus camaldulensis*), Tasmanian bluegum (*Eucalyptus globulus*), or other *Eucalyptus* sp. Eucalyptus species. A total of 2.82 acres of eucalyptus grove alliance occurs within the RCA.

Riparian Forest and Woodland

California Sycamore Woodlands Alliance (61.310.00)

The California sycamore woodlands or *Platanus racemosa* alliance is recognized by both the List of Terrestrial Natural Communities (CDFG 2003) and the Natural Communities List and is ranked as a G3S3 alliance (CDFG 2010b). Within the alliance, there are 15 associations that include California sycamore (*Platanus racemosa*) as the dominant or codominant tree in the canopy. The alliance is found in a variety of wetland and riparian locations, including gullies, intermittent streams, springs, stream and river banks, and seeps. It can also be found on terraces next to floodplains that are subject to high-intensity flooding (Sawyer et al. 2009). Communities occur in soils that are permanently saturated with freshwater at depth.

9 Seminatural stands are invasive naturalized plant groups in which "plants are sufficiently dominant to have replaced most of the natives, and, in many situations, the associates are themselves non-native species" (Sawyer et al. 2009).

Soils are typically cobbly alluvium or rocky (Sawyer et al. 2009). This association is ranked as a high priority for inventory and is therefore considered sensitive by CDFW (CDFG 2010b).

The following species are associated with the California sycamore woodlands alliance: western white alder (*Alnus rhombifolia*), California walnut (*Juglans californica*), coast live oak (*Quercus agrifolia*), valley oak (*Quercus lobata*), Fremont cottonwood (*Populus* fremontii ssp. *fremontii*), California bay (*Umbellularia californica*), arroyo willow (*Salix lasiolepis*), Goodding's black willow (*Salix gooddingii*), and red willow (*Salix laevigata*) (Sawyer et al. 2009; NatureServe 2009; Holland 1986). A total of 188.28 acres of California sycamore woodland alliance occurs within the foothills the RCA.

California Sycamore–Coast Live Oak Association (61.321.01)

The California sycamore–coast live oak association is recognized by the Natural Communities List and is ranked as a G3S3 within the California sycamore woodlands alliance (CDFG 2010b). This association is dominated by California sycamores and coast live oaks. This association is ranked as a high priority for inventory and is therefore considered sensitive by CDFW (CDFG 2010b). California sycamore woodlands occur throughout the riparian areas within the foothills on the RCA site. This association covers 9.96 acres within the eastern portion of the RCA site.

Disturbed and Developed

Disturbed Habitat

Although not recognized by the Natural Communities List (CDFG 2010b) disturbed habitats are areas that have been physically disturbed and are no longer recognizable as native or naturalized vegetation associations. These areas may continue to retail soil substrate. If vegetation is present, it is almost entirely composed of non-native vegetation, such as ornamentals or ruderal exotic species. Within the NA, disturbed habitat occurs centrally within an area that previously functioned as a mine, totaling 130.25 acres. A total of 164.76 acres of disturbed habitat occurs within the RCA.

Urban/Developed

Although not recognized by the Natural Communities List (CDFG 2010b) urban/developed refers to areas that have been constructed upon or disturbed so severely that native vegetation is no longer supported. Developed land includes areas with permanent or semi-permanent structures, pavement or hardscape, landscaped areas, and areas with a large amount of debris or other materials. On site, urban/developed land occurs throughout the NA and RCA site as existing roadways or buildings. Within the RCA, 20.18 acres are urban/developed, and 39.15 acres are as such in the NA.

Ruderal

Ruderal

Ruderal occurs in areas dominated by non-native vegetation, such as tree tobacco (*Nicotiana glauca*). Ruderal has no ranking but would not be considered special status since it is not a natural vegetation community. A total of 8.06 acres of ruderal lands occur within the RCA.

Jurisdictional Resources

As described in Section 3.4, a hydrology analysis was conducted in conjunction with the jurisdictional delineation field survey to refine the locations where flows still exist after the implementation of major flood control structures (levee) within the area. During the jurisdictional delineation field survey, both low flow channels and active flood plain areas were mapped, but it is likely that these active flood plain areas are historic or relic indictors from prior to the implementation of the levee. The results of the hydrology analysis efforts match closely with the low flow channels identified during the jurisdictional delineation field survey.

For these reasons, existing hydrology characteristics are used to reflect the current conditions of the NA with the major flood control structures (Deer Creek and Day Creek) and the levee in place. Hydrology modeling completed for the Plan Area show that a very small amount of runoff currently enters the NA below the levee along the west EHNCP boundary, adjacent to the Deer Creek channel. Almost all of the flow below or south of the levee results from direct rainfall (i.e., all flows above the levee were captured by the levee). The results revealed much less runoff in the braided systems below the levee than what was mapped during the jurisdictional delineation field survey. Hydrologically speaking, much of the alluvial braids seen in aerial photographs are considered relic or no longer active due to the construction of the levee.

The modeling analysis included three different storm events using various maximum depths of runoff at each given grid or location within the model. It is not a snapshot of the depths at the storm peak, but rather multiple snapshots of all the peaks at each given location within the model. This yields the worst-case scenario depth for each braid within the system during a storm event. The modeling analysis looked at depths greater than 0.2 feet and also greater than 0.5 feet to aid in the mapping of the OHWM for each braid. Design storms were selected in a range to help show a pattern of flooding from the 2- to 25-year storms. The 25-year storm results, being the most conservative, are used within the NA to show how the larger storm events may break out of the braids and combine with other adjacent flows (**Figure 4.3-3: Jurisdictional Resources).**

Based on this hydrology modeling, the NA contains a total of 71.22 acres non-wetland waters or streambed based on ACOE, CDFW, and RWQCB definitions and 0.16 acres of streambed under CDFW-only

jurisdiction. **Table 4.3-3: Jurisdictional Resources in the Neighborhood Area**, summarizes the features on the NA, and the features are displayed on **Figure 4.3-3.**

Table 4.3-3
Jurisdictional Resources in the Neighborhood Area (Acres)

Jurisdictional Resource	ACOE/RWQCB/CDFW	CDFW-only	Total Acreage
Non-wetland Waters/Streambed	71.22	0.16	71.38
Total jurisdictional area[1]	**71.22**	**0.16**	**71.38**

Notes:

[1] Modeling based on 4 percent annual chance (25-year) floodplain with a minimum depth threshold of 0.2 feet.

A total of 343.65 acres of non-wetland waters under ACOE, RWQCB, and CDFW jurisdiction and 169.50 acres of CDFW-only jurisdiction were identified with the RCA. Hydrology modeling was not used as the basis for determining jurisdictional resource areas the RCA, with the exception of the southern portion proposed as the Etiwanda Heights Preserve. Jurisdictional resources within the Etiwanda Heights Preserve total 51.62 acres. A desktop review was conducted for the remainder of the RCA north of the proposed Etiwanda Heights Preserve, based on the observed connections to jurisdictional areas observed within the NA. **Table 4.3-4, Jurisdictional Resources in the Rural/Conservation Area (Acres)** summarizes the features on the RCA, and the features are displayed on **Figure 4.3-3**.

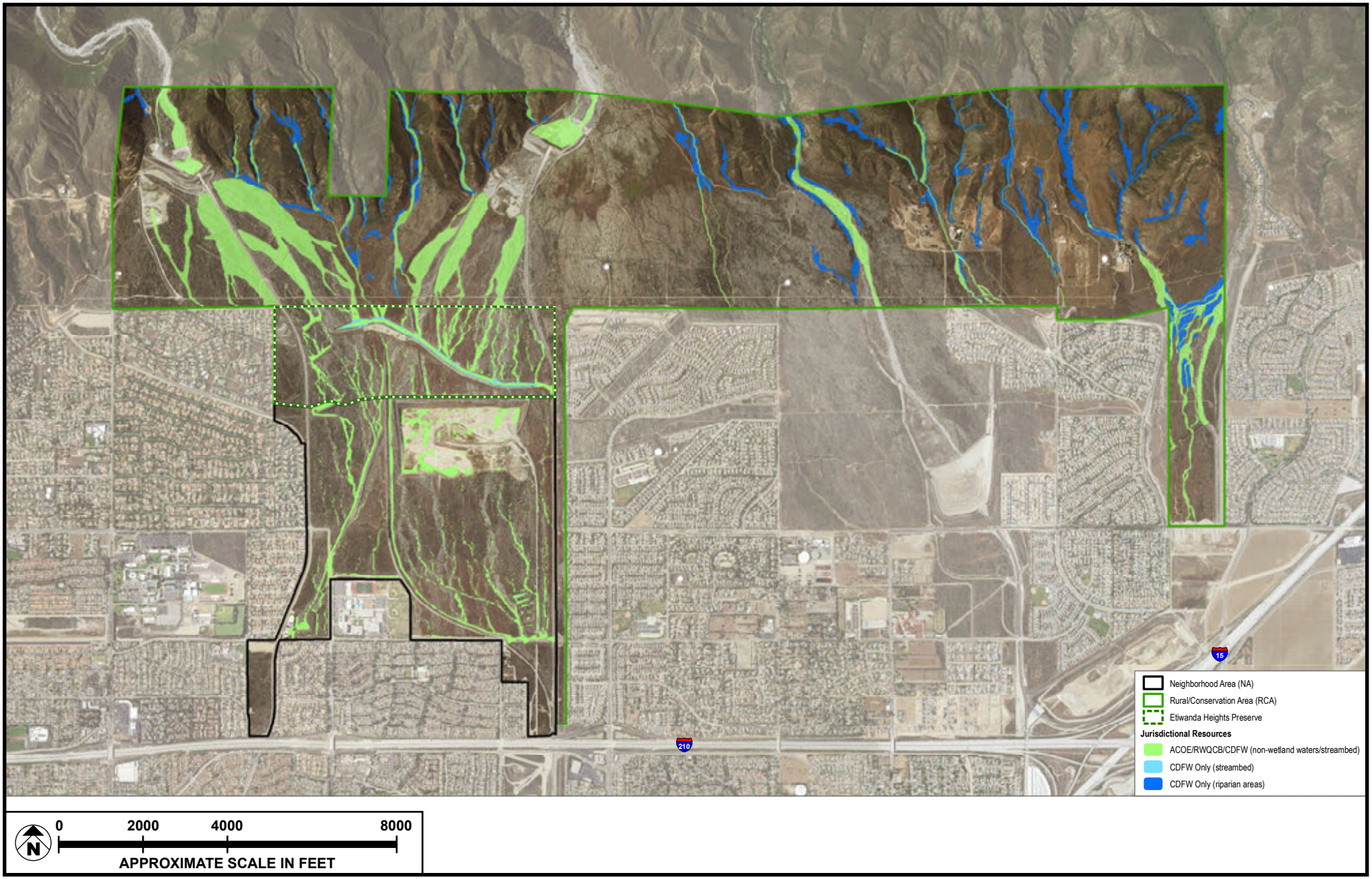
Table 4.3-4
Jurisdictional Resources in the Rural/Conservation Area (Acres)

Jurisdictional Resource	ACOE/RWQCB/CDFW	CDFW-only	Total Acreage
Non-wetland Waters/Streambed			
Alluvial Fan	269.08	—	269.08
Basin	3.76	—	3.76
Concrete-lined Channel	0.15	—	0.15
Levee	12.15	—	12.15
Ephemeral Drainage	23.41	—	23.41
Non-wetland Waters/Streambed	28.30	21.23	49.53
Non-wetland Waters/Streambed Subtotal	*343.65*	*21.23*	*364.88*
Wetland/Riparian Areas			
California sycamore woodland (*Platanus racemosa)*	—	139.68[2]	139.68
California sycamore-coast live oak	—	8.59[2]	8.59
Wetland/Riparian Subtotal	—	*148.27*	*148.27*
Total jurisdictional area[1]	**343.65**	**169.50**	**513.15**

Notes:

[1] Acreage may not total due to rounding.

[2] This total does not match the vegetation acreage total for this community. To prevent double counting, the overlap between non-wetland-waters and wetlands was only accounted for once.



SOURCE: DUDEK - 2019; Sargent Town Planning - 2019

FIGURE **4.3-3**

Meridian Consultants

Jurisdictional Resources

072-004-18

Plants and Wildlife

A total of 222 species of vascular plants—166 native species (75 percent) and 56 non-native species (25 percent)—were recorded during surveys on the NA and the proposed Etiwanda Heights Preserve in the RCA. All plant species observed during field surveys on the NA and within the Etiwanda Heights Preserve are listed in Appendix C of the Biological Report.

A total of 68 birds, 6 reptiles, 9 invertebrate, and 17 mammals were audibly detected or observed during surveys on the NA and within the Etiwanda Heights Preserve. Common bird species detected or observed include the native, red-tailed hawk (*Buteo jamaicensis*), northern mocking bird (*Mimus polyglottos*), California scrub-jay (*Aphelocoma californica*), California towhee (*Melozone crissalis*), and common raven (*Corvus corax*). The site provides ample burrowing and foraging habitat for lizards and snakes; common reptiles observed during field surveys included common side-blotched lizard (*Uta stansburiana*) and western fence lizard (*Sceloporus occidentalis*). Common invertebrates observed during field surveys included western pygmy-blue (*Brephidium exile*) butterfly and Bernardino square-spotted blue (*Euphilotes battoides Bernardino*). A total of 11 rodent species were captured during the small mammal trapping surveys. Mammals observed during other field surveys included California ground squirrel (*Spermophilus (Otospermophilus) beecheyi*) and desert cottontail (*Sylvilagus audubonii).* All wildlife species observed during field surveys on the NA and RCA are listed in Appendix D of the Biological Report.

Special-Status/Regulated Resources

The following resources are discussed in this section: (1) plant and animal species present or potentially present on the EHNCP Area that are given special recognition by federal, state, or local resource agencies and environmental organizations owing to declining, limited, or threatened populations, that are the result, in most cases, of habitat reduction; (2) habitat areas that are unique, of relatively limited distribution, or of particular value to wildlife; and (3) vegetation communities that are unique, of relatively limited distribution, or of particular value to wildlife.

Sources used for determination of special-status biological resources are as follows:

- State- and federally listed plant species (CDFW 2017b)
- CRPR 1B, 2, 3, and 4 species (CNPS 2017)
- Special Vascular Plants, Bryophytes, and Lichens List (CDFW 2017c)
- CDFW Natural Communities (CDFG 2010b)
- Special Animals List (CDFW 2017b)
- CNDDB (CDFW 2017a)

Special-Status Plant Species

Plant species are considered special-status if they have been listed or proposed for listing by the federal or state government as rare, endangered, or threatened ("listed species") or have a CRPR of 1–4. Special-status plants are assigned to one of six CRPR categories.

CRPR 1A: Plants presumed extirpated in California and either rare or extinct elsewhere

CRPR 1B: Plants rare, threatened, or endangered in California and elsewhere

CRPR 2A: Plants presumed extirpated in California, but common elsewhere

CRPR 2B: Plants rare, threatened, or endangered in California, but more common elsewhere

CRPR 3: Plants about which more information is needed – a review list

CRPR 4: Plants of limited distribution – a watch list)

In addition to the CRPR, CNPS assigns threat categories to the lists as follows:

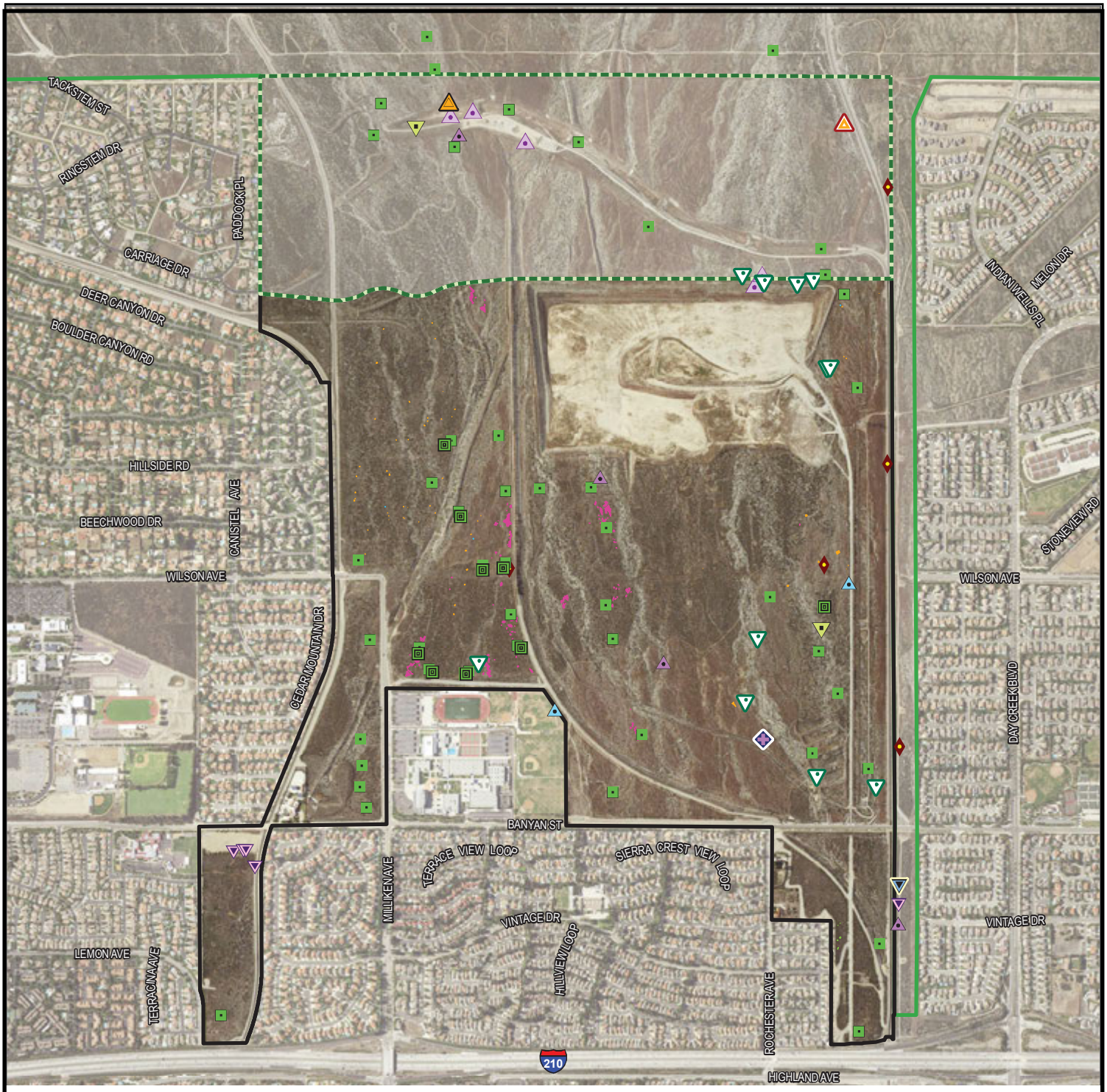
0.1—Seriously threatened in California (more than 80 percent of occurrences threatened/high degree and immediacy of threat) (e.g., 1B.1 would be a plant rare, threatened, or endangered in California and elsewhere and more than 80 percent of the occurrences threatened or with a high degree of threat).

0.2—Moderately threatened in California (20 percent to 80 percent occurrences threatened/moderate degree and immediacy of threat)

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

It should be noted that the CNPS rarely assigns a threat category of 0.1 to CRPR 4 plants because they generally have large enough populations to not be significantly threatened in California.

Four special-status plant species were detected within the NA or the RCA Etiwanda Heights Preserve in 2017, including Parry's spineflower (Chorizanthe parryi var. parryi; CRPR 1B.1), intermediate mariposa lily (Calochortus weedii var. intermedius; CRPR 1B.2), Plummer's mariposa lily (Calochortus plummerae; CRPR 4.2), and California walnut (Juglans californica; CRPR 4.2) (**Table 4.3-5: Special-Status Plant Species Observed within the Neighborhood Area and RCA Etiwanda Heights Preserve**). **Figure 4.3-4: Special-Status Species** shows the results of the 2017 survey for special-status plants and descriptions of each species are include below.



SOURCE: DUDEK - 2019; Sargent Town Planning - 2019

FIGURE **4.3-4**

Meridian Consultants

Special-Status Species

072-004-18

Table 4.3-5
Special-Status Plant Species Observed within the Neighborhood Area and RCA Etiwanda Heights Preserve

Common Name (Scientific Name)	Status (Federal/State/CRPR)	Total Acreage	Total Individuals
Intermediate mariposa lily (*Calochortus weedii* var. *intermedius*)	None/None/1B.2	0.07	73
Parry's spineflower (*Chorizanthe parryi* var. *parryi)*	None/None/1B.1	1.20	18,883
Plummer's mariposa lily (*Calochortus plummerae*)	None/None/4.2	<0.01	9
California walnut *(Juglans californica)*	None/None/4.2	0.01	6
	Total	**1.29**	**18,970**

Parry's Spineflower

Parry's spineflower is a CRPR 1B.1 species, indicating that it is rare or endangered in California and elsewhere and seriously endangered in California. Parry's spineflower occurs from Los Angeles County southeast to San Bernardino and Riverside Counties (CNPS 2017). This annual herb blooms from April to June and occurs in rocky or sandy opening within chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland from 275 to 1,220 meters above mean sea level (902 to 4,002 feet) (CNPS 2017). Approximately 18,883 individuals of Parry's spineflower were identified in 2017. Parry's spineflower populations were located along the alluvial benches within scale broom scrub, California sagebrush–California buckwheat scrub, California sagebrush–California buckwheat–white sage, and hoary leaf ceanothus–chamise (**Figure 4.3-4**). This species was observed in 145 separate occurrences ranging in size from 1 individual to approximately 8,000 individuals.

Intermediate Mariposa Lily

Intermediate mariposa lily is a CRPR 1B.2 species, indicating that it is fairly endangered in California but not federally or state-listed. Intermediate mariposa lily occurs from Los Angeles and Orange Counties east to Riverside and San Bernardino Counties (CNPS 2017). This bulbiferous herb blooms from May to July and occurs in rocky and calcareous soils in chaparral, coastal scrub, and valley and foothill grasslands from 105 to 855 meters above mean sea level (344 to 2,805 feet) (CNPS 2017). Approximately 73 individuals of Intermediate mariposa lily were identified in 2017. These were primarily located within openings of hoary leaf ceanothus–chamise; however, populations were also located within scale broom scrub and California sagebrush scrub (**Figure 4.3-4**). This species was observed in 60 separate occurrences ranging in size from

1 to 7 individuals. It is assumed hybrids between intermediate mariposa lily and Plummer's lily were observed in a few places on site.

Plummer's Mariposa Lily

Plummer's mariposa lily is a CRPR 4.2 species, indicating that it has a limited distribution in California. Plummer's mariposa lily occurs from Ventura County south to Los Angeles and Orange Counties and east to San Bernardino and Riverside Counties (CNPS 2017). This bulbiferous herb blooms from May to July and occurs in granitic, rocky soils in chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, and valley and foothill grasslands from 100 to 1,700 meters above mean sea level (328 to 5,577 feet) (CNPS 2017). Approximately nine individuals of Plummer's mariposa were identified in 2017 within scale broom scrub, California sagebrush scrub, and hoary leaf ceanothus–chamise (**Figure: 4.3-4**). It is assumed hybrids between intermediate mariposa lily and Plummer's lily were observed in a few places on site.

California Walnut

California walnut is a CRPR 4.2 species, indicating that it has a limited distribution in California. California walnut occurs from Santa Barbara County south to San Diego County (CNPS 2017). This perennial deciduous tree blooms from March to August and occurs in alluvial habits in chaparral, cismontane woodland, coastal scrub, and riparian woodlands from 50 to 900 meters above mean sea level (164 to 2,952 feet) (CNPS 2017). Approximately six individuals of California walnut were identified in 2017 within California sagebrush scrub located in the southeastern portion of the study area, south of Banyan Street (**Figure: 4.3-4**).

No other species have potential to occur within the NA or within the RCA Etiwanda Heights Preserve (Appendix E of the Biological Report). However, there are 38 special-status plant species with moderate or high potential to occur within the RCA, in areas outside the Etiwanda Heights Preserve. Appendix E provides an analysis of special-status plant species potential to occur on site based on geography, topography, vegetation communities, soils, and survey results.

There is no USFWS critical habitat for special-status plants mapped within or adjacent to the EHNCP Area (USFWS 2017).

Special-Status Wildlife Species

Special-status wildlife species are those listed as federal/state endangered or threatened, proposed for listing, fully protected by CDFW, California Watch List (WL), or California Species of Special Concern (SSC). Protocol-level surveys were conducted for coastal California gnatcatcher and San Bernardino kangaroo rat within the NA and within the RCA Etiwanda Heights Preserve.

All special-status wildlife species that were observed or for which focused surveys were conducted in the EHNCP Area are described below, and sightings are shown on **Figure 4.3-4**. For special-status species with potential to occur within the NA and RCA sites, see Appendix F of the Biological Report.

Coastal California Gnatcatcher (*Polioptila californica californica*), FT/SSC

The coastal California gnatcatcher is federally listed as threatened (FT), and a California SSC. This species occurs in coastal Southern California and Baja California year-round, where it depends on a variety of arid scrub habitats. The coastal California gnatcatcher occurs mainly on cismontane slopes (coastal side of the mountains) in Southern California, ranging from Ventura and northern Los Angeles counties south through the Palos Verdes Peninsula to Orange, Riverside, San Bernardino, and San Diego Counties. The species' range continues south to El Rosario, Mexico.

Coastal California gnatcatcher typically occurs in or near coastal scrub vegetation that is composed of relatively low growing, dry season deciduous and succulent plants. Characteristic plants of this community include coastal sagebrush, various species of sage, California buckwheat, lemonade sumac (*Rhus integrifolia*), California brittlebush, and cactus (e.g., *Opuntia* spp.). During the 2017 survey effort, approximately 800 acres of suitable habitat was survey within the NA and the RCA Etiwanda Heights Preserve, and no coastal California gnatcatchers were detected (Appendix A of the Biological Report).

San Bernardino Kangaroo Rat (*Dipodomys merriami parvus*), FE/SCC

The San Bernardino kangaroo rat is federally listed as endangered (FE), and a California SSC. This species occurs in the San Bernardino Valley in San Bernardino County to the Menifee Valley in Riverside County (Hall and Kelson 1959; Lidicker 1960). The San Bernardino kangaroo rat occupies alluvial sage scrub, coastal sage scrub, and chaparral vegetation types (Braden and McKernan 2000). In addition to alluvial fans, this species is typically found in habitat consisting of relatively flat masses of loose rock, gravel, and sand deposited by a stream, including areas such as floodplains, washes, areas with braided channels, and in adjacent upland areas (USFWS 2007).

During the habitat assessment for the San Bernardino kangaroo rat trapping, the most suitable areas (but still considered low quality) occur in the southern portion of the NA, particularly west and north of Los Osos High School. The areas within the NA are considered low quality for the following reasons: disconnected from active alluvial processes; habitat is mature (most areas dominated by chamise), with shrub cover greater than the preferred range; in areas that lack shrub cover, soils have a high degree of loam, allowing for the establishment of near 100 percent cover of forbs and non-native grasses; high degree of boulders and cobble in existing channels and a general lack of sandy substrate; and site lacks proximity to a source population with suitable habitat (i.e., there are no substantial high quality habitat areas nearby).

Trapping did occur at the very southern edge of the RCA. However, this area is generally not suitable for San Bernardino kangaroo rat for the following reasons: the site contains steep slopes and uneven terrain that do not allow the formation of some of the sandy benches/terraces that comprise high quality habitat; the topography promotes deposition of boulder and cobble with transport downstream of sands; substrate is very rocky and imbedded with a predominance of boulder and cobble, not friable sandy soils that are preferred by the species; in areas that lack shrub cover, soils contain a finer substrate material allowing for the establishment of near 100 percent cover of forbs and non-native grasses; and the site lacks proximity to a source population with suitable habitat (i.e., there are no substantial high quality habitat areas nearby).

No San Bernardino kangaroo rats were observed during any of the small mammal trapping surveys within the EHNCP Area. There are approximately 758 acres of USFWS Critical Habitat for San Bernardino kangaroo rat present within the NA, covering the majority of the site (**Figure 4.3-1**). Within the RCA site, there are 2,056 acres of USFWS Critical Habitat for San Bernardino kangaroo rat present, located within the southern half of the site (**Figure 4.3-1**). A summary of the small mammal trapping results is presented in **Table 4.3-6: Summary of Small Mammal Trapping Captures** and shown on **Figure 4.3-1**. Appendix B of the Biological Report gives the full trapping results.

Table 4.3-6
Summary of Small Mammal Trapping Captures

Trap Site	Date	Species Captured[1]										
		NWPM	*DUKR*	*HOMO*	*BRWO*	*DEWO*	*BEWO*	*BRDM*	*CCDM*	*NBDM*	*NADM*	*WHMO*
1–6	11/17–22/2015	49	13			7			37		40	
7–12	12/5–10/2015	198			11					164	56	
13–17	12/6–11/2015	25	12			3			29		41	
18–23	2/6–10/2016	74			6					190	127	
24–29	3/2–10/2016	62	11	1	4		5	4		110	18	
30–35	3/2–6/2016	30	4			2			35		39	2
36–41	3/16–20/2016	99	12		3					216	48	
Total[2]		**537**	**52**	**1**	**24**	**12**	**5**	**4**	**101**	**680**	**369**	**2**

Notes:
[1] NWPM = northwestern San Diego pocket mouse (Chaetodipus fallax fallax)
DUKR = Dulzura kangaroo rat (Dipodomys simulans)
HOMO = house mouse (Mus musculus)
BRWO = Bryant's woodrat (Neotoma bryanti)
DEWO = desert woodrat (Neotoma lepida)
BEWO = big-eared woodrat (Neotoma macrotis)
BRDM = brush deermouse (Peromyscus boylii)
CCDM = cactus deermouse (Peromyscus eremicus)
NBDM = Northern Baja deermouse (Peromyscus fraterculus)
NADM = North American deermouse (Peromyscus maniculatus)
WHMO = western harvest mouse (Reithrodontomys megalotis)
[2] Totals do not account for individuals trapped more than once.

Burrowing Owl (*Athene cunicularia*), SSC

The burrowing owl is a California SSC. It occurs throughout North and Central America west of the eastern edge of the Great Plains south to Panama (County of Riverside 2008). In California, burrowing owls are yearlong residents of flat, open, dry grassland and desert habitats at lower elevations (Bates 2006). They can inhabit annual and perennial grasslands and scrublands characterized by low growing vegetation. They may be found in areas that include trees and shrubs if the cover is less than 30 percent (Bates 2006); however, they prefer treeless grasslands. Although burrowing owls prefer large, contiguous areas of treeless grasslands, they have also been known to occupy fallow agriculture fields, golf courses, cemeteries, road allowances, airports, vacant lots in residential areas and university campuses, and fairgrounds when nest burrows are present (Bates 2006). They typically require burrows made by fossorial mammals, such as California ground squirrels.

No focused surveys for burrowing owl were conducted on either the NA or RCA sites, and no burrowing owls were observed incidentally during other surveys. However, there is potential for this species to occur on site in open areas where burrows are present. Because burrowing owls prefer open areas, it is assumed that there are approximately 185.53 acres of land that might be suitable for them within the NA and the RCA Etiwanda Heights Preserve. This includes the disturbed and developed land covers, but not the sage scrub and chaparral vegetation communities. Within this acreage, only those areas that support appropriately sized burrow resources (e.g., greater than 11 centimeters in diameter), would be suitable.

Loggerhead Shrike (*Lanius ludovicianus*), BCC/SSC

The loggerhead shrike is a USFWS Bird of Conservation Concern (BCC) and a California SSC. It is widespread throughout the United States, Mexico, and portions of Canada (Humple 2008). The species is a yearlong resident in most of the United States, including from California east to Virginia and south to Florida, and in Mexico. In California, while shrikes are widespread at the lower elevations in the state, the largest breeding populations are located in portions of the Central Valley, the Coast Ranges, and the southeastern deserts (Humple 2008).

Preferred habitats for loggerhead shrikes are open areas that include scattered shrubs, trees, posts, fences, utility lines, or other structures that provide hunting perches with views of open ground, as well as nearby spiny vegetation or man-made structures (such as the top of chain-link fences or barbed wire) that provide a location to impale prey items for storage or manipulation (Humple 2008). Loggerhead shrikes occur most frequently in riparian areas along the woodland edge, grasslands with sufficient perch and butcher sites, scrublands, and open canopied woodlands, although they can be quite common in agricultural and grazing areas, and can sometimes be found in mowed roadsides, cemeteries, and golf courses. Loggerhead shrikes occur only rarely in heavily urbanized areas. For nesting, the height of shrubs

and presence of canopy cover are most important (Yosef 1996). Loggerhead shrikes were observed during field surveys within northwestern and northeastern portions of the NA (**Figure 4.3-4).** There are 979.14 acres of suitable foraging and nesting habitat for loggerhead shrikes within the NA and the RCA Etiwanda Heights Preserve.

Prairie Falcon (*Falco mexicanus*), WL/BCC

Prairie falcon is a BCC and CDFW WL species. Prairie falcons occur in a wide variety of habitats including grassland, savanna, rangeland, agriculture, desert scrub, alpine meadows. This species typically nests on cliffs or bluffs. Suitable foraging habitat for this species is present within the EHNCP Area. This species was observed in the northwestern portion of the NA within scale broom scrub (**Figure 4.3-4**). It is likely that the individual was using areas within the NA for foraging and potential nesting habitat could occur within the RCA. There are 979.14 acres of suitable foraging habitat for prairie falcon within the NA and the RCA Etiwanda Heights Preserve.

Cooper's Hawk (*Accipiter cooperii*), WL

The Cooper's hawk is a WL species. This species is found throughout California in wooded areas. This species inhabits live oak, riparian, deciduous, or other forest habitats near water. Nesting and foraging usually occur near open water or riparian vegetation. Nests are built in dense stands with moderate crown depths, usually in second-growth conifer or deciduous riparian areas. Cooper's hawks use patchy woodlands and edges with snags for perching while they are hunting for prey such as small birds, small mammals, reptiles, and amphibians within broken woodland and habitat edges (Zeiner et al. 1990). This species was observed in multiple locations throughout the NA (**Figure 4.3-4**). There are 979.14 acres of suitable foraging habitat for Cooper's hawk within the NA and the RCA Etiwanda Heights Preserve.

Southern California Rufous-Crowned Sparrow (*Aimophila ruficeps canescens*), WL

The Southern California rufous-crowned sparrow is a WL species. The current distribution of the Southern California rufous-crowned sparrow is restricted to a narrow belt of semiarid coastal sage scrub and sparse chaparral from Santa Barbara south to the northwestern corner of Baja California (Todd 1922; Grinnell 1926; Grinnell and Miller 1944; Bent 1968; Zeiner et al. 1990; Unitt 1984; Collins 1999). The subspecies has also been found on San Martin Island. The Southern California rufous-crowned sparrow is considered a resident throughout its range. No true migratory movements have been recorded, though limited movements to lower elevations in some areas have been reported during especially severe winters (Collins 1999). This species was observed in multiple locations throughout the NA, with the majority along the eastern boundary within scale broom scrub and California sagebrush scrub (**Figure 4.3-4**). There are 979.14 acres of suitable nesting habitat for Southern California rufous-crowned sparrow within the NA and the RCA Etiwanda Heights Preserve.

Northern Harrier (*Circus cyaneus*), SSC

The northern harrier is an SSC species. Northern harriers use a wide variety of open habitats in California including deserts, coastal sand dunes, pasturelands, croplands, dry plains, grasslands, estuaries, flood plains, and marshes (Macwhirter and Bildstein 2011). This species can also forage over coastal sage scrub or other open scrub communities. Nesting areas are associated with marshes, pastures, grasslands, prairies, croplands, desert shrub-steppe, and riparian woodland (Macwhirter and Bildstein 2011). Winter habitats similarly include a variety of open habitats dominated by herbaceous cover. Northern harrier populations are most concentrated in areas with low vegetation. This species was observed in two locations, including the northwestern and southeastern portion of the NA within scale broom scrub and disturbed habitat (**Figure 4.3-4**). There are 979.14 acres of suitable foraging habitat for northern harrier within the NA and the RCA Etiwanda Heights Preserve.

Rufous Hummingbird (*Selasphorus rufus*), BCC

The rufous hummingbird is a BCC species. Rufous hummingbirds use a wide variety of nectar-producing flower habitats, including valley foothill hardwood, valley foothill hardwood-conifer, riparian, chaparral, and montane riparian, aspen, and high mountain meadows (Zeiner et al. 1990). This species seasonally migrates south to Southern California. Rufous hummingbirds build open cut nests on sloping branches near the group (Harrison 1978). Habitat for this species also includes gardens and orchards. This species was observed in two locations within the NA, including the southeastern and southwestern corners (**Figure 4.3-4**). There are 979.14 acres of suitable nesting habitat for rufous hummingbird within the NA and the RCA Etiwanda Heights Preserve.

Costa's Hummingbird (*Calypte costae*), BCC

The Costa's hummingbird is a BCC species. Costa's hummingbirds occurring in arid habitats in California, including desert wash, edges of desert riparian and valley foothill riparian, coastal scrub, desert scrub, desert succulent shrub, lower-elevation chaparral, and palm oasis (Zeiner et al. 1990). This species nests at a height of approximately 1.5 meters (5 feet) in a variety of trees, cacti, shrubs, woody forbs, and vines (Woods 1927; Bent 1940). Costa's hummingbird migrates and is most common and widespread in Southern California. This species was observed in one location in the northeastern corner of the NA within scale broom scrub (**Figure 4.3-4**). There are 979.14 acres of suitable nesting habitat for Costa's hummingbird within the NA and the RCA Etiwanda Heights Preserve.

Lawrence's Goldfinch (*Spinus lawrencei*), BCC

The Lawrence's goldfinch is a BCC species. Lawrence's goldfinch occurs in valley foothill hardwood, valley foothill hardwood-conifer, desert riparian, palm oasis, pinyon-juniper, and lower montane habitats

(Zeiner et al. 1990). The species breeds in open oak or other arid woodland and chaparral near water and builds a nest in dense foliage (Zeiner et al. 1990; Grinnell and Miller 1944). Lawrence's goldfinch seasonally migrates through California and winters in southwestern states and northern Mexico (Zeiner et al. 1990). This species was observed in one location in the southeastern corner of the NA within disturbed habitat (**Figure 4.3-4**). There are 979.14 acres of suitable nesting habitat for Lawrence's goldfinch within the NA and the RCA Etiwanda Heights Preserve.

Northwestern San Diego Pocket Mouse (*Chaetodipus fallax fallax*), SSC

The northwestern San Diego pocket mouse is an SSC species. Northwestern San Diego pocket mouse occurs in coastal scrub, chamise-redshank chaparral, mixed chaparral, sagebrush, desert wash, desert scrub, desert succulent shrub, pinyon-juniper, and annual grassland (Zeiner et al. 1990). This species ranges in San Diego County within arid coastal and desert border areas, as well as Riverside and San Bernardino Counties. The elevation range for northwestern San Diego pocket mouse is from sea level to 4,500 feet (1,350 meters) and is a common resident of sandy herbaceous areas (Zeiner et al. 1990). This species was observed during small mammal trapping surveys in all 41 trapping sites throughout the NA and the southern portion of the RCA (**Figure 4.3-4**). There are 979.14 acres of suitable habitat for northwestern San Diego pocket mouse within the NA and the RCA Etiwanda Heights Preserve.

San Diegan Tiger Whiptail (*Aspidoscelis tigris stejnegeri*), SSC

The San Diegan tiger whiptail is an SSC species. This species is found in coastal Southern California, mostly west of the Peninsular Ranges and south of the Transverse Ranges, north into Ventura County, and south into Baja California, Mexico (Lowe et al. 1970; Stebbins 2003).

The tiger whiptail (*A. tigris*) is found in a variety of habitats, primarily in areas where plants are sparse and there are open areas for running. According to Stebbins (2003), the species ranges from deserts to montane pine forests where it prefers warmer and drier areas. The species is also found in woodland and streamside growth, and it avoids dense grassland and thick shrub growth. This species was observed in multiple locations along the eastern boundary and within the southwestern portion of the NA (**Figure 4.3-4**). There are 979.14 acres of suitable habitat for San Diegan tiger whiptail within the NA and the RCA Etiwanda Heights Preserve.

Blainville's Horned Lizard (*Phrynosoma blainvillii*), SSC

Blainville's horned lizard is an SSC species. This species inhabits valley-foothill hardwood, conifer and riparian habitats, pine-cypress, juniper, and annual grassland habitats (Zeiner et al. 1988). This species occurs in Sierra Nevada foothills and throughout the central and Southern California coast, and forages on the ground in open

areas between shrubs. The species' elevation range extends from sea level to 6,000 feet in the mountains of Southern California. This species was observed in the southern portion of the NA (**Figure 4.3-4**). There are 979.14 acres of suitable habitat for Blainville's horned lizard within the NA and the RCA Etiwanda Heights Preserve.

Wildlife Corridors and Movement

Wildlife corridors are linear landscape elements that provide for wildlife species movement and dispersal between two or more habitats (City of Rancho Cucamonga 2010a). Wildlife corridors contribute to population viability by assuring continual exchange of genes between populations, providing access to adjacent habitat areas for foraging and mating, and providing routes for recolonization of habitat after local extirpation or ecological catastrophes (e.g., fires). Wildlife corridors are usually bound by development or areas unsuitable for wildlife, but contain enough food, cover, and/or water to facilitate wildlife movement between habitat patches and prevent isolation of populations (City of Rancho Cucamonga 2010a). Travel routes are landscape features (i.e., ridgelines, drainages, canyons, or riparian areas) that are used by wildlife to gain access to essential resources (City of Rancho Cucamonga 2010a).

Both the NA and the RCA contain large blocks of open space that offer suitable habitat for wildlife movement and life history needs (**Figure 4.3-5: Wildlife Corridors and Linkages**). However, neither the NA nor RCA functions as a corridor due to both areas lacking physical constraints that would prevent wildlife movement. The NA is surrounded on three sides by development, so the only wildlife movement that could occur through the site would be from the RCA. The RCA contains a contiguous block of conservation areas identified in Chapter 6 of the Rancho Cucamonga General Plan (City of Rancho Cucamonga 2010a), the North Etiwanda Preserve Management Plan (USFWS and CDFG 2010) and various mitigation lands. However, once open space areas become constrained by development, the remaining features can become wildlife corridors as long as they provide resources and do not contain obstacles that would prevent wildlife movement (City of Rancho Cucamonga 2010a). The NA has been sited adjacent to existing development to allow for the concentration of habitat within the RCA Etiwanda Heights Preserve into one large habitat block and to maintain the characteristics that are preferred by wildlife to allow for movement through the site (i.e., connectivity to the RCA).

Additionally, the EHNCP Area is within the San Gabriel–San Bernardino Connection as identified by the South Coast Missing Linkages project (Penrod et. al 2006). This broad-scale linkage is important for regional wildlife connectivity between two expansive areas of the Angeles and San Bernardino National Forests and provides live-in and move-through habitat for a number of plant and wildlife species occurring in the area (Penrod et. al 2006). Habitat linkages join larger blocks of habitat and help reduce the adverse effects of habitat fragmentation. Habitat linkages provide a potential route for gene flow and long-term

dispersal of plants and animals. They may also serve as primary habitat for smaller animals, such as reptiles and amphibians. Habitat linkages may be continuous habitat or discrete habitat islands that function as stepping stones for dispersal.

ENVIRONMENTAL IMPACTS

Methodology

Literature Review

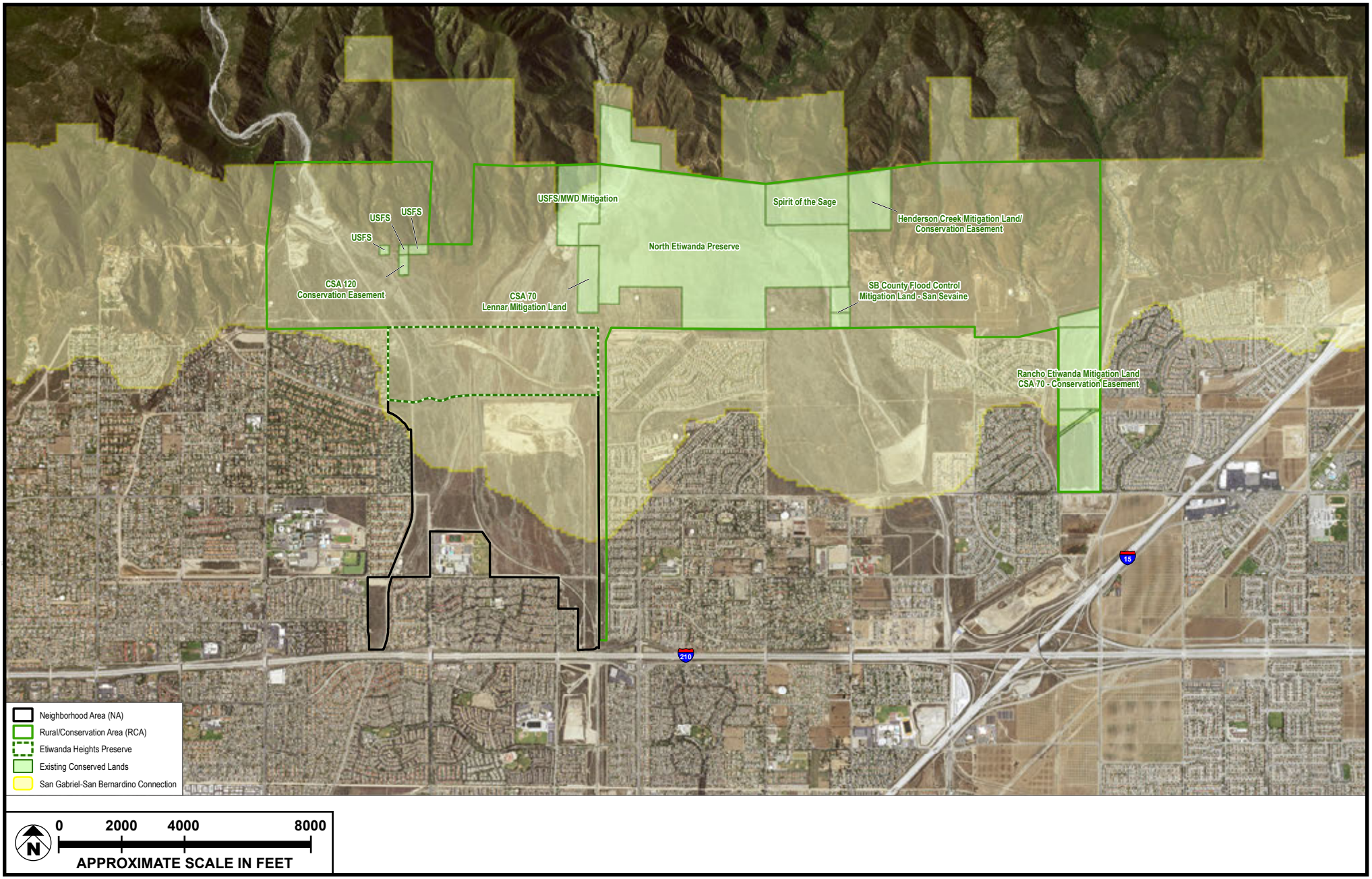
A literature review was conducted to evaluate the environmental setting of the study area and identify potential special-status biological resources that may be found on the site. The review included the following:

- California Natural Diversity Database (CNDDB) (CDFW 2017a);
- California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS 2017) for the Cucamonga Peak and surrounding 7.5-minute USGS quadrangles;
- U.S. Fish and Wildlife Service (USFWS) Carlsbad database of threatened and endangered plants and wildlife was also queried for the study area (USFWS 2017);
- Additional potential data sources reviewed included the Rancho Cucamonga General Plan and associated EIR (2010);
- San Bernardino County Museum special-status species occurrence records;
- eBird (2015) for the North Etiwanda Preserve "hotspot";
- North Etiwanda Preserve Management Plan (USFWS and CDFW 2010);
- Conservation Plan for the Etiwanda-Day Canyon Drainage System (Safford and Quinn 1998);
- U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA 2016a) was evaluated for the potential to support rare vegetation communities, plants, and/or wildlife.

Thresholds of Significance

To assist in determining whether the proposed Plan would have a significant effect on the environment, the City finds the proposed Plan may be deemed to have a significant impact related to biological resources if it would:

Threshold BIO-1: **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 Game or US Fish and Wildlife Service?**



SOURCE: DUDEK - 2019; Sargent Town Planning - 2019

FIGURE **4.3-5**

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Wildlife Corridors and Linkages

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Threshold BIO-2: **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 Game or US Fish and Wildlife Service?**

Threshold BIO-3: **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?**

Threshold BIO-4: **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?**

Threshold BIO-5: **Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?**

Threshold BIO-6: **Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?**

Impact Analysis

The EHNCP would permit the development of up to 2,900 units in the Neighborhood Area (NA) subject to the plans, standards and guidelines in the Plan. The entire 828-acre NA would be graded and developed with new neighborhoods under the Plan.

The lower portion of the Resource/Conservation Area, 337 acres, is designated for preservation in the Plan as the Etiwanda Heights Preserve. The Plan would also permit the development of a maximum of 100 rural residential units on privately owned property in the remainder of the RCA. Please see Figure **3.0-2: Property Ownership**, in **Section 3.0: Environmental Setting** to see the location of privately-owned parcels in the RCA. The Plan includes a Conservation Strategy &Transfer of Development Rights Program (TDR) to encourage and facilitate the conservation of privately-owned lands in the RCA. Privately-owned property in the RCA may be developed, consistent with the Plan.[10]

The Plan would establish the Rural Regulating Zone for the RCA The Rural Regulating Zone is further defined by 4 Sub-Zones that correspond with the existing City General Plan Land Use designations for the

10 With full implementation of the TDR, development rights for all 100 units would be transferred to the NA and thereby allowing for development of 3,000 residential units in the NA.

RCA: (1) Hillside (R-H), (2) Open Space (R-OS), (3) Flood Control/Utility Corridor (R-FC/UC), and (4) Conservation (R-C).

Consistent with the current City's General Plan, owners of private properties in the Hillside and Open Space Sub-Zones would be allowed to develop homes on their property. The City's existing Hillside Development Regulations would be supplemented by the standards in the Plan. The intent of the Rural Zone is that limited amounts of very low-density single-family housing be gently integrated into the existing rural landscape of the foothills. Grading is strictly minimized, roadways and buildings conform themselves to the natural terrain, buildings, landscaping and other site improvements are simple and rural in character and designed for fire resistance.

Any private home proposed on private property in the Hillside and Open Space Sub-Zones would be required to submit additional information with an application, including but not limited to, a topographic survey and slope density analysis; a site-specific biological resources report; a geotechnical report addressing site specific conditions including septic system feasibility and Alquist Priolo fault investigation if applicable; and a site-specific cultural resources study.

As the exact number and location new rural residential homes that may be developed on private property cannot be determined at this time, the analysis of potential impacts to biological resources from development of up to 100 homes assumes that each home would result in up to 6.3 acres of disturbance associated with the development of each home, which takes into account disturbance for access, utility extensions, well development, on-site sewer systems, construction of buildings, and required fire breaks. As discussed above, a primary objective of the Plan is to preserve the open space character of the RCA and the policies and standards in the Plan will minimize the impacts of the development of rural residential homes on private property.

Threshold BIO-1: **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 Game or US Fish and Wildlife Service?**

Rural/Conservation Area

In recognition of the pre-existing property rights based on existing County zoning, adoption of the EHNCP would cap development (i.e., permitted development would exclude areas with greater than 30 percent slope and those occurring within the fault zone) on privately owned lands within the RCA. A maximum of 100 homes and up to an estimated 630 acres of habitat could potentially be impacted by new rural development. The number of potential rural residencies and the acres of habitat impact per residence would be far less than

allowed under existing County zoning. This section addresses, qualitatively, the direct and indirect impacts associated with the potential rural development on privately owned lands within the RCA.

New homes are permitted only in the Hillside and Open Space Regulating Sub-zones, require Design Review, and are subject to the Hillside Development Ordinance where applicable (see Chapter 7.7 of the Plan and 17.16.140 of the Rancho Cucamonga Municipal Code). The allowance of new homes is controlled by Sub-area (Table 5.9.1B of the Plan) and sub-zone (Table 5.9.1A of the Plan). Applications will be reviewed for compliance with the standards of this chapter of the Plan.

Additional studies for development of individual homes within the RCA will be required, as defined in Chapter 7: Implementation, Section 7.7: Rural Development Design Review of the Plan, and prior to approval and implementation. Further, individual project permitting and approval would require compliance with the Federal ESA and CESA with regards to any listed plant or animal species, or any candidates for federal or state listing as endangered or threatened. Coordination with federal and state resource agencies would be required to minimize adverse effects to these species.

As part of these review and permitting processes, potential impacts associated with development of individual homes in the RCA would be assessed, and specific mitigation would be applied as appropriate to reduce potential impacts. In addition, if applicable to individual projects in the RCA, **Mitigation Measures MM BIO-4** to **MM BIO-9** would apply. Further, any development in the RCA would be subject to the requirements and review procedures of City Municipal Code 17.16.140 (Hillside Development Review). However, in the absence of project-specific details, it is assumed that potential impacts associated with development of individual homes in the RCA, even with development standards and review procedures as defined in the Plan, may result in potentially significant impacts to sensitive status species.

Special-Status Plant Species

Direct Impacts

Based on geography, topography, vegetation communities, and soils occurring within the RCA, there are 38 special-status plant species with moderate or high potential to occur. Appendix E of the Biological Report provides an analysis of special-status plant species potential to occur within the RCA. Although the exact location and amount of impacts on privately owned lands located within the RCA site is unknown, impacts to special-status plant species would be potentially significant under CEQA and would require mitigation.

Indirect Impacts

Short-term indirect impacts to special-status plant would primarily result from construction-related dust, which could disrupt plant vitality in the short term, as well as soil erosion and runoff. Long-term indirect impacts on special-status plants would most likely occur as a result of trampling of vegetation by humans and domestic pets, invasion by exotic species, alteration of the natural fire regime, and exposure to urban pollutants (e.g., fertilizers,

pesticides, herbicides, and other hazardous materials). If development were to occur on the privately-owned lands located within the RCA, indirect effects may include dust, which could disrupt plant vitality in the short term, or construction-related soil erosion and runoff. Long-term edge effects could include intrusions by humans and possible trampling of individual plants, invasion by exotic plant and wildlife species, exposure to urban pollutants (fertilizers, pesticides, herbicides, and other hazardous materials), soil erosion, litter, fire, and hydrologic changes (e.g., surface and groundwater level and quality). Indirect impacts to special-status plants would be significant absent mitigation and would be avoided with the implementation of Mitigation Measure **MM BIO-9**, which would require impacts to occur only within the disturbance limits, use of BMPs and erosion control, control of invasive weeds, and avoidance of toxic substances that could affect plant life.

Special-Status Wildlife Species

Direct Impacts

No focused surveys for special-status wildlife surveys were conducted on the privately-owned lands located within the RCA. Based on geography, topography, vegetation communities, and soils occurring within the RCA, there are 27 special-status wildlife species with moderate or high potential to occur. Appendix F provides an analysis of special-status wildlife species with potential to occur within the RCA. Although the exact location and amount of impacts on privately owned lands located within the RCA site is unknown, impacts to special-status wildlife species would be potentially significant under CEQA and would require mitigation.

Indirect Impacts

Indirect impacts to special-status wildlife species may include both habitat degradation and effects on individuals. Habitat degradation may occur in the same manner as discussed above for special-status plants. Over the long term, indirect impacts to wildlife habitat within the RCA would increase the amount of interface (or "edge") between development and open space. Dust can impact vegetation surrounding the privately-owned lands located within the RCA, resulting in changes in the community structure and function. These changes could result in impacts to suitable habitat for special-status wildlife species. Wildlife may also be indirectly affected in the short term and long term by construction-related noise, which can disrupt normal activities, cause lasting stress, and subject wildlife to higher predation risks. Trash and garbage from development-related activities within the RCA could attract invasive predators such as ravens, gulls, crows, opossums, skunks, and raccoons that could impact the native wildlife species within the adjacent open space preserves. Accidental spills of hazardous chemicals could contaminate surface waters and indirectly impact wildlife species through direct or secondary poisoning and other sub-lethal effects (e.g., endocrine impacts), reduced prey availability, or altering suitable habitat. Indirect

impacts to wildlife would be significant absent mitigation and would be avoided with the implementation of Mitigation Measure **MM BIO-9**, which would require impacts to occur only within the disturbance limits, use of BMPs and erosion control, minimizing noise, worker awareness training, trash removal, and avoidance of toxic substances.

Neighborhood Area

Impacts to 3 special-status plants species and 20 special-status wildlife occurring or have potential to occur within the NA would be considered **potentially significant**. Even with implementation of Mitigation Measures **MM BIO-1** and **MM BIO-2** to **MM BIO-9**, impacts remain significant.

Special-Status Plant Species

Direct Impacts

Four special-status plant species were observed within the impact areas of the NA. **Table 4.3-7**: **Impacts to Special-Status Plant Species within the Neighborhood Area** summarizes the impacts to the special-status plant species observed, and those impacts are displayed in **Figure 4.3-6: Impacts to Biological Resources.**

Table 4.3-7
Impacts to Special-Status Plant Species within the Neighborhood Area

Common Name (Scientific Name)	Status (Federal/State/CRPR)	Individuals/Acreage	
		Total Impacts[1] (Acreage)	*Total Impacts[1] (Individuals)*
Intermediate mariposa lily (*Calochortus weedii* var. *intermedius*)	None/None/1B.2	0.07	72
Parry's spineflower (*Chorizanthe parryi* var. *parryi)*	None/None/1B.1	1.04	17,491
Plummer's mariposa lily (*Calochortus plummerae*)	None/None/4.2	<0.01	8
California walnut *(Juglans californica)*	None/None/4.2	0.01	6
Total		**1.13**	**17,577**

Note:
[1] Impacts are considered permanent and includes the FMZ.

Direct impacts to CRPR 1B.1 and 1B.2 species, including intermediate mariposa lily and Parry's spineflower, would be considered significant because these species are considered rare, threatened, or endangered in California. Impacts to these species would be reduced to less than significant through conservation of lands within the RCA Etiwanda Heights Preserve (containing 1 intermediate mariposa lily individual and 1,391 Parry's spineflower individuals), acquisition of lands within the RCA (Mitigation Measure **MM BIO-1**), and through translocation of these two species as directed by Mitigation Measure **MM BIO-3.**

Direct impacts to CRPR 4 species, including Plummer's mariposa lily and California walnut, are not considered significant because these species are of low sensitivity, and the on-site populations are not significant in terms of the ability for this species to persist (i.e., CRPR 4 species are not considered "rare" from a statewide perspective). In addition, the species do not occur within the impact area in a population that is considered regionally significant and/or are common in the study area. However, acquisition of lands within the RCA (Mitigation Measure **MM BIO-1**) would provide suitable habitat for these species.

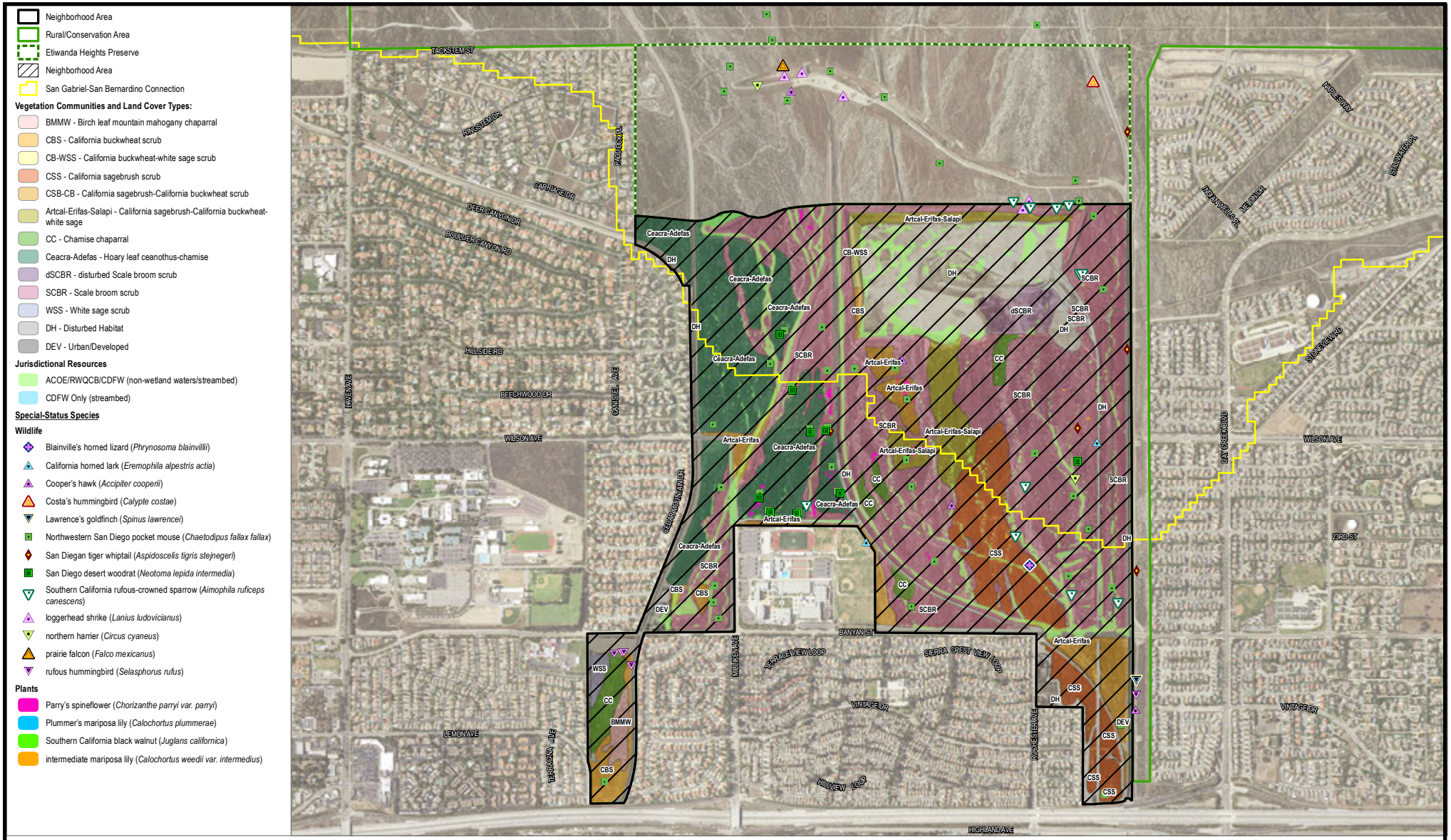
Indirect Impacts

During construction of the NA, indirect effects may include dust, which could disrupt plant vitality in the short term, or construction-related soil erosion and runoff. Long-term edge effects could include intrusions by humans and possible trampling of individual plants, invasion by exotic plant and wildlife species, exposure to urban pollutants (fertilizers, pesticides, herbicides, and other hazardous materials), soil erosion, litter, fire, and hydrologic changes (e.g., surface and groundwater level and quality). Indirect impacts to special-status plants would be significant absent mitigation and would be avoided with the implementation of Mitigation Measure **MM BIO-9**, which would require impacts to occur only within the disturbance limits, use of BMPs and erosion control, control of invasive weeds, and avoidance of toxic substances that could affect plant life.

Special-Status Wildlife Species

Direct Impacts

There are 20 special-status wildlife species occurring or have potential to occur within the NA: coastal California gnatcatcher, San Bernardino kangaroo rat, burrowing owl, loggerhead shrike, prairie falcon, Cooper's hawk, southern California rufous-crowned sparrow, Bell's sage sparrow (*Artemisiospiza belli belli*), northern harrier, rufous hummingbird, Costa's hummingbird, Lawrence's goldfinch, northwestern San Diego pocket mouse, pallid bat (*Antrozous pallidus*), American badger (*Taxidea taxus*), Los Angeles pocket mouse (*Perognathus longimembris brevinasus*), San Diegan tiger whiptail, southern California legless lizard (*Anniella stebbinsi*), California glossy snake (*Arizona elegans occidentalis*), and Blainville's



SOURCE: DUDEK - 2019; Sargent Town Planning - 2019

FIGURE **4.3-6**

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Impacts to Biological Resources

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horned lizard. Impacts to each special-status wildlife species are discussed below and displayed on **Figure 4.3-6**.

Coastal California Gnatcatcher

The NA and a portion of the RCA containing the Etiwanda Heights Preserve was surveyed for coastal California gnatcatchers during the 2017 Dudek focused surveys (Appendix A). There were no coastal California gnatcatcher observations within the NA. Therefore, impacts to coastal California gnatcatcher are not anticipated. However, because the NA site supports coastal sage scrub communities and other sensitive habitats, a pre-construction survey would be completed to reduce potential impacts to less than significant (Mitigation Measure **MM BIO-5**). Nevertheless, should coastal California gnatcatchers be found during pre-construction surveys, consultation with the USFWS would be required. Permanent impacts to suitable habitat for coastal California gnatcatcher would be mitigated through Mitigation Measure **MM BIO-4,** Coastal California Gnatcatcher Surveys, and Mitigation Measure **MM BIO-1**, which would acquire suitable habitat for coastal California gnatcatcher within the RCA. However, if a sufficient amount of suitable habitat cannot be acquired, this impact would remain significant.

San Bernardino Kangaroo Rat

San Bernardino kangaroo rat was not observed during the trapping efforts within the NA and within the very southern portion of the RCA. However, there is potential for this species to occur on site, and approximately 2,813 acres of USFWS Critical Habitat is present within both the NA and RCA. Since the habitat within the NA is considered low quality, as described previously, the compensatory mitigation ratio for San Bernardino kangaroo rat shall be 1:1, subject to approval by USFWS. Therefore, impacts to 658.41 acres of potentially suitable habitat in the NA, although low quality, would be considered significant. Permanent impacts to suitable habitat for San Bernardino kangaroo rat could be mitigated through Mitigation Measure **MM BIO-1**, which would acquire suitable habitat for San Bernardino kangaroo rat within the RCA. Other possible mitigation opportunities could include future reintroduction of San Bernardino kangaroo rat into conservation areas. All efforts concerning reintroduction would be conducted in consultation with USFWS.

Separate from, but inclusive of, impacts to suitable habitat as discussed above, impacts to 757.53 acres of unoccupied USFWS Critical Habitat for San Bernardino kangaroo rat would be significant absent the mitigation provided in Mitigation Measure **MM BIO-1**, which would require acquisition of lands containing Critical Habitat for San Bernardino kangaroo rat. However, if a sufficient amount of suitable habitat cannot be acquired, this impact would remain significant.

Burrowing Owl

Although no burrowing owls were observed within the NA, there is moderate potential for this species to occur. If present, NA construction would result in 169.40 acres of direct impacts to nesting and foraging habitat for burrowing owl and could directly affect individuals, including their nests, eggs, and young. Therefore, Mitigation Measure **MM BIO-5**, which requires pre-construction surveys for burrowing owl, would be implemented to reduce potential impacts to less than significant. Additionally, potential impacts to burrowing owl would be further reduced through acquisition of lands within the RCA (Mitigation Measure **MM BIO-1**).

Nesting/Foraging Birds

The NA would impact 658.41 acres of suitable nesting and foraging habitat for loggerhead shrike, Cooper's hawk, southern California rufous-crowned sparrow, Costa's hummingbird, rufous hummingbird, Bell's sage sparrow, and Lawrence's goldfinch. Individual adults of these species are unlikely to be directly killed or injured during construction activities because they are highly mobile and would likely leave the area during construction. However, nesting activities could be disrupted if construction occurs during the breeding season as a result of nest abandonment or reduced reproductive success. Nests, eggs, and young could be directly affected by vegetation clearing and grading. These impacts can be reduced to less-than-significant levels through the implementation of Mitigation Measure **MM BIO-6,** which would require pre-construction nesting bird surveys. Additionally, impacts to these species would be further reduced through acquisition of lands within the RCA (Mitigation Measure **MM BIO-1**).

Foraging Raptors

Although prairie falcon and northern harrier are not likely to nest on site due to lack of suitable nesting habitat, the NA would impact 658.41 acres of suitable foraging habitat. Raptor species could forage virtually anywhere on site where prey is available. Permanent impacts to foraging habitat for these species would be significant and would require implementation of Mitigation Measure **MM BIO-1**, which would acquire lands containing suitable foraging habitat and potential nesting habitat within the RCA.

Small Mammals

The NA would impact 658.41 acres of suitable habitat for pallid bat, American badger, Los Angeles pocket mouse, northwestern San Diego pocket mouse and San Diego desert woodrat (*Neotoma lepida intermedia*).

Pallid bat was not observed but has moderate potential to forage and roost on site. Because the pallid bat may roost on-site, roosting activities could be disrupted, especially during the breeding season for pallid

bat if maternity roosts were established on site; however, the potential for maternity roosts likely is low because this species tends to establish maternity roosts in cliffs, crevices, and buildings. NA construction could result in direct impacts to foraging and roosting habitat for pallid bat and could directly affect individuals at roost sites. Individual adults foraging on-site are unlikely to be directly killed or injured during construction activities because they are highly mobile and only active at night. Still, individuals could be killed or harmed if active roost sites were removed, either causing direct mortality or more likely causing abandonment during the day. Direct impacts to foraging habitat would be reduced through the acquisition of lands within the RCA (Mitigation Measure **MM BIO-1**). Direct impacts to individuals, including young, at roost sites, as a result of construction activities would also be significant and would be reduced through Mitigation Measure **MM BIO-7a**, which would require pre-construction surveys for active bat roosts.

American badger was not observed but has moderate potential to occur on site. Individual adults are unlikely to be directly killed or injured during construction activities because they are fairly mobile and should be able to escape from construction areas. The greatest potential for direct impacts to badgers would be mortality of young in a natal den and potentially the mother, which fiercely defends the natal den. While adults are highly mobile and can usually escape human disturbances, young natal dens and females defending natal dens, would be highly vulnerable to injury and mortality during construction. Direct impacts to individuals would be significant absent mitigation provided in Mitigation Measure **MM BIO-7b**, which would require pre-construction surveys for American badgers. Additionally, impacts to these species would be further reduced through acquisition of lands within the RCA (Mitigation Measure **MM BIO-1**).

Northwestern San Diego pocket mouse was observed within all 41 small mammal trapping sites, indicating an abundance of individuals. Los Angeles pocket mouse was not observed during the trapping efforts but has moderate potential to occur due to suitable habitat present on-site. San Diego desert woodrat was observed during the small mammal trapping, and woodrat middens were observed throughout the site. These species could be killed or injured during vegetation clearing and grading. Individuals may escape direct impacts but unless they were able to move into adjacent habitat, their chance of survival upon being flushed from a burrow or midden would be low. Therefore, both adults and young dependent on the nest would be highly vulnerable to injury and mortality during construction. Direct impacts to northwestern San Diego pocket mouse and Los Angeles pocket mouse would be significant absent the mitigation proposed in Mitigation Measure **MM BIO-7c**, which would require pre-construction trapping surveys. Direct impacts to San Diego desert woodrat individuals would be significant absent mitigation proposed in Mitigation Measure **MM BIO-8d**, which would require pre-construction clearance surveys.

Additionally, impacts to these species would be further reduced through acquisition of lands within the RCA (Mitigation Measure **MM BIO-1**).

Reptiles

The NA would result in impacts to 658.41 acres of suitable habitat for San Diego tiger whiptail, southern California legless lizard, California glossy snake, and Blainville's horned lizard. Although some individuals can move quickly over short distances in short bursts, they do not move far, and other individuals are cryptic and slow moving on the surface or are otherwise underground. Therefore, these species are all highly vulnerable to injury and mortality during construction. Impacts to special-status reptiles would be reduced to less than significant by the following measures: Mitigation Measure **MM BIO-1**, which would acquire lands containing suitable habitat within the RCA; Mitigation Measure **MM BIO-8**, which would require pre-construction clearance surveys; and Mitigation Measure **MM BIO-9**, which would require worker awareness training by a qualified biologist for all construction personnel.

Indirect Impacts

Indirect impacts to special-status wildlife species may include both habitat degradation and effects on individuals. Habitat degradation may occur in the same manner as discussed above. However, it should be noted that over the long term, indirect impacts on wildlife are expected to be limited along the open space–urban interface, because most of the NA is bordered by existing and future development, and there will be a relatively small amount of interface (or "edge") between development and open space. Dust can impact vegetation surrounding the NA, resulting in changes in the community structure and function. These changes could result in impacts to suitable habitat for special-status wildlife species. Wildlife may also be indirectly affected in the short term and long term by construction-related noise, which can disrupt normal activities, cause lasting stress, and subject wildlife to higher predation risks. Trash and garbage from NA-related activities could attract invasive predators such as ravens, gulls, crows, opossums, skunks, and raccoons that could impact the native wildlife species within the adjacent RCA Etiwanda Heights Preserve. Accidental spills of hazardous chemicals could contaminate surface waters and indirectly impact wildlife species through direct or secondary poisoning and other sub-lethal effects (e.g., endocrine impacts), reduced prey availability, or altering suitable habitat. With implementation of Mitigation Measure **MM BIO-9**, which would require impacts to occur only within the disturbance limits, use of BMPs and erosion control, minimizing noise, worker-awareness training, trash removal, and avoidance of toxic substances. Indirect impacts to wildlife would be less than significant.

Threshold BIO-2: **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 Game or US Fish and Wildlife Service?**

Rural/Conservation Area

Vegetation Communities

Direct Impacts

There is a total of 1,252.84 acres of un-conserved privately-owned lands located within the RCA. Of this total, permanent direct impacts to vegetation communities are estimated to total up to 630 acres. Vegetation communities on privately owned lands located within the RCA are summarized in **Table 4.3-8: Vegetation Communities and Land Covers within Private Lands Located within the Rural/Conservation Area** and shown on **Figure 4.3-7: Vegetation Communities on Privately Owned Lands within the RCA.**

Table 4.3-8
Vegetation Communities and Land Covers
within Private Lands Located within the Rural/Conservation Area

General Physiognomic Location	General Habitat	Vegetation Community or Land Cover Type[1]	Alliance	Association	Total Acres
Scrub and chaparral	Coastal scrub	California buckwheat scrub	*Eriogonum fasciculatum*	(NA)	3.98
		California buckwheat–white sage scrub	*Eriogonum fasciculatum–Salvia apiana*	(NA)	1.06
		California sagebrush scrub	*Artemisia californica*	(NA)	91.25
		California sagebrush–California buckwheat	*Artemisia californica–Eriogonum fasciculatum*	(NA)	153.20
		California sagebrush–California buckwheat–white sage	*Artemisia californica–Eriogonum fasciculatum*	*Artemisia californica–Eriogonum fasciculatum–Salvia apiana*	30.05
		Deer weed scrub	*Lotus scoparius*	(NA)	15.89
		Hairy yerba santa–white sage scrub	(NA)	(NA)	22.75

General Physiognomic Location	General Habitat	Vegetation Community or Land Cover Type[1]	Alliance	Association	Total Acres
		Scale broom scrub[2]	*Lepidospartum squamatum*	(NA)	80.11
		White sage scrub[2]	*Salvia apiana*	(NA)	16.19
		White sage–California sagebrush[2]	*Salvia apiana*	*Salvia apiana-Artemisia californica*	16.74
		White sage–California buckwheat[2]	(NA)	(NA)	11.34
	Undifferentiated Chaparral scrub	Chamise chaparral	*Adenostoma fasciculatum*	(NA)	46.49
		Chamise–California buckwheat	*Adenostoma fasciculatum*	*Adenostoma fasciculatum–Eriogonum fasciculatum*	157.51
		Chamise–white sage	*Adenostoma fasciculatum–Salvia apiana*	*Adenostoma fasciculatum–Salvia apiana*	2.65
		Chaparral whitethorn chaparral	*Ceanothus leucodermis*	(NA)	19.83
		Hoaryleaf ceanothus–chamise	*Ceanothus crassifolius*	*Ceanothus crassifolius–Adenostoma fasciculatum*	268.62
	Mountain mahogany woodlands and scrubs	Birchleaf mountain mahogany chaparral	*Cercocarpus montanus*	(NA)	0.76
		Birchleaf mountain mahogany–chamise	*Cercocarpus montanus*	*Cercocarpus montanus–Adenostoma fasciculatum*	1.54
		Birchleaf mountain mahogany–California buckwheat	*Cercocarpus montanus*	*Cercocarpus montanus–Eriogonum fasciculatum*	1.94
				Scrub and chaparral subtotal	*941.91*
Grass- and herb-dominated communities	Non-native grassland	Mediterranean California naturalized annual and perennial grassland	(NA)	(NA)	153.53

General Physiognomic Location	General Habitat	Vegetation Community or Land Cover Type[1]	Alliance	Association	Total Acres
			Grass- and herb-dominated communities subtotal		*153.53*
Broadleaved upland tree dominated	Eucalyptus naturalized forest	Eucalyptus groves	Eucalyptus (*globulus, camaldulensis*)	(NA)	2.82
			Broadleaved upland tree dominated subtotal		*2.82*
Riparian and bottomland habitat	Riparian forest and woodland	California sycamore woodlands[2]	*Platanus racemose*	(NA)	101.00
		California sycamore–coast live oak[2]	*Platanus racemose*	*Platanus _racemosa–Quercus agrifolia*	3.05
			Riparian and bottomland habitat subtotal		*104.06*
Disturbed and developed	Disturbed and developed	Disturbed habitat	(NA)	(NA)	50.52
			Disturbed and developed subtotal		*50.52*
				Total[3]	**1,252.84**

Notes: *(NA) = not applicable (i.e., not mapped at this level of detail or not described by CDFW (CDFG 2010b)).*

[1] *CDFW (CDFG 2010b)).*

[2] *Considered special status by CDFW (CDFG 2010b)).*

[3] *May not total due to rounding.*

As stated above, CDFW state rankings of 1, 2, or 3 are considered high priority for inventory or sensitive and impacts to these communities typically require mitigation. Although the exact location and amount of impacts on privately owned lands located within the RCA site is unknown, six vegetation communities (scale broom scrub, white sage scrub, white sage-California buckwheat, white sage-California sagebrush, California sycamore woodlands, and California sycamore-coast live oak) are considered sensitive. Any impacts to these communities would be potentially significant under CEQA and would require mitigation.

New homes are permitted only in the Hillside and Open Space Regulating Sub-zones, require Design Review, and are subject to the Hillside Development Ordinance where applicable (see Chapter 7.7 of the Plan and 17.16.140 of the Rancho Cucamonga Municipal Code). The allowance of new homes is controlled by Sub-area (Table 5.9.1B of the Plan) and sub-zone (Table 5.9.1A of the Plan). Applications will be reviewed for compliance with the standards of this chapter of the Plan.

Additional studies for development of individual homes within the RCA will be required, as defined in Chapter 7: Implementation, Section 7.7: Rural Development Design Review of the Plan, and prior to

approval and implementation. As part of these review and permitting processes, potential impacts would be assessed, and specific mitigation would applied as appropriate to reduce potential impacts. In addition, if applicable to individual projects in the RCA, Mitigation Measure **MM BIO-9** would apply. In the absence of specific details for future individual home development in the RCA, it is assumed that adverse effects to sensitive vegetation communities resulting from any future development in the RCA would result in a potentially significant impact.

Indirect Impacts

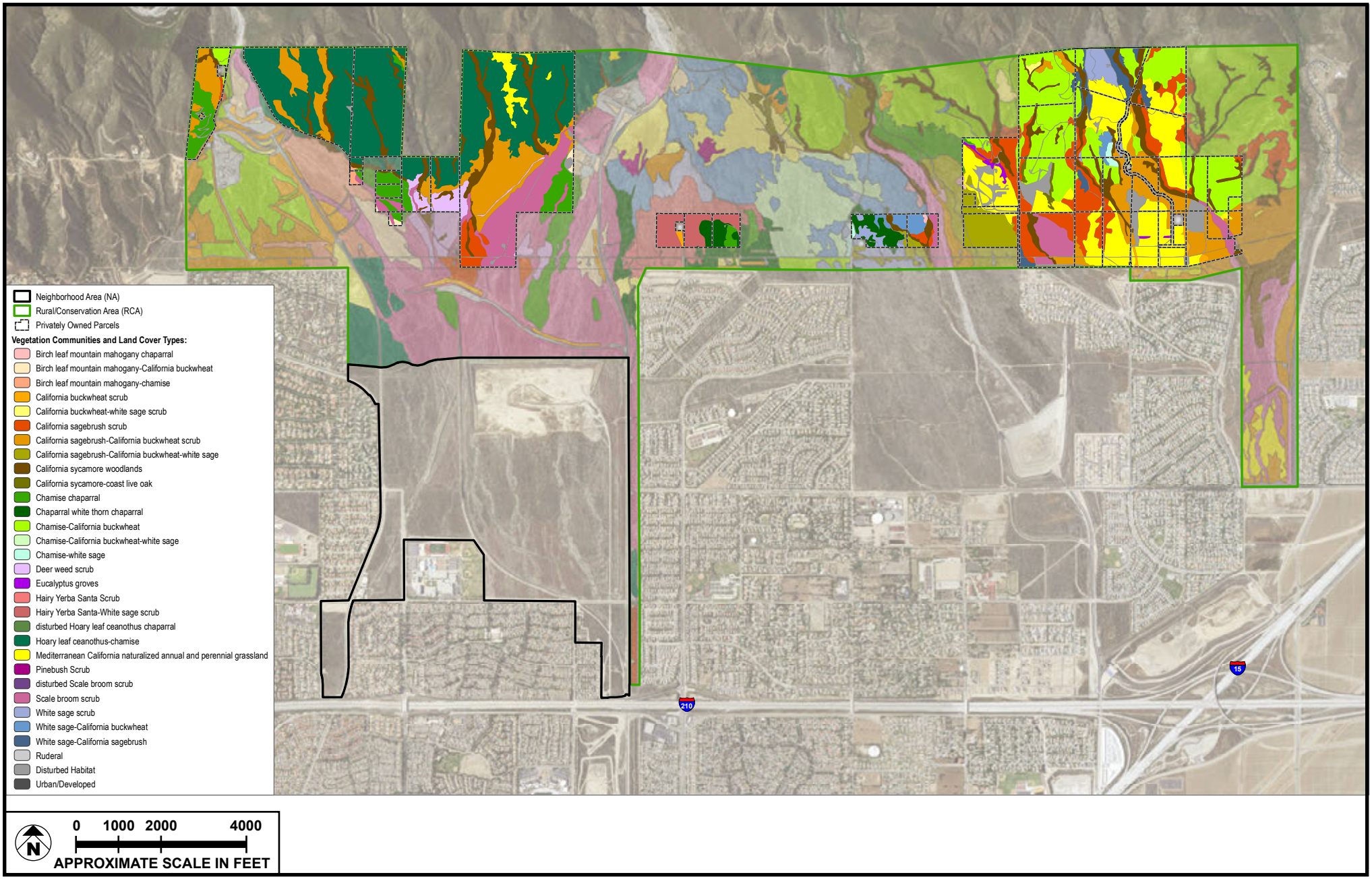
Short-term indirect impacts to vegetation communities are similar to those described previously, and would primarily result from construction-related dust, which could disrupt plant vitality in the short term, as well as soil erosion and runoff. Long-term indirect impacts on vegetation communities would most likely occur as a result of trampling of vegetation by humans and domestic pets, invasion by exotic species, alteration of the natural fire regime, and exposure to urban pollutants (e.g., fertilizers, pesticides, herbicides, and other hazardous materials). Over the long term, indirect impacts on vegetation communities within the RCA would increase the amount of interface (or "edge") between development and open space. Indirect impacts to vegetation communities would be significant absent mitigation and would be avoided with the implementation of Mitigation Measure **MM BIO-9**, which would require impacts to occur only within the disturbance limits, use of BMPs and erosion control, control of invasive weeds, and avoiding the use of toxic substances that could affect plant life.

Neighborhood Area

Vegetation Communities

Direct Impacts

Permanent direct impacts to vegetation communities in the NA are summarized in **Table 4.3-9: Habitat Impacts in the NA** and shown on **Figure 4.3-6**. A total of 827.82 acres will be impacted on the NA site, including 658.41 acres of scrub and chaparral habitat and 169.40 acres of disturbed and developed lands. As stated above, CDFW state rankings of 1, 2, or 3 are considered high priority for inventory or sensitive and impacts to these communities typically require mitigation. Within the NA, two of the vegetation communities (scale broom scrub (including disturbed) and white sage scrub) are considered sensitive; therefore, impacts to 376.21 acres with NA implementation would be potentially significant under CEQA and would require mitigation at a 2:1 ratio for scale broom scrub (including disturbed) and a 2:1 ratio for white sage scrub, subject to agency approval. A total of 752.42 acres would be required for mitigation.



SOURCE: DUDEK - 2019; Sargent Town Planning - 2019

FIGURE **4.3-7**

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Vegetation Communities and Land Cover Types on Privately Owned Lands within the RCA

072-004-18

Mitigation for significant impacts to sensitive vegetation communities would occur through the acquisition of lands within the RCA (mitigation measure (**MM- BIO-1**), The EHNCP recommends that creation of a new 337-acre preserve—the Etiwanda Heights Preserve within the RCA. This 337-acre area is a portion of the surplus property that the County proposes to sell to the developer of the NA and is located immediately north of the NA. The proposed Etiwanda Heights Preserve is composed of two areas: A) 200 acres of property currently encumbered with an Open Space Easement as noted in Section 3.6 of the Plan, which allows intense recreational uses such as sport parks, golf courses, and equestrian centers. The EHNCP recommends that these 200 acres be permanently conserved as habitat, rather than subject to any number of "recreational uses" that would remove existing habitat; and B) 137-acres of adjoining area directly to the west. The EHNCP recommends that this adjacent area also be permanently conserved as a habitat. A total of 217.61 acres of scale broom scrub would be conserved within the RCA Etiwanda Heights Preserve with project implementation. However, if a sufficient amount of suitable habitat cannot be acquired, this impact would remain significant.

Table 4.3-9
Habitat Impacts in the NA

Habitat Types/ Vegetation Communities	Alliance	Association	Total Impacts[1] (Acres)
California buckwheat scrub	*Eriogonum fasciculatum*	(NA)	12.45
California buckwheat–white sage scrub	*Eriogonum fasciculatum–Salvia apiana*	(NA)	2.77
California sagebrush scrub	*Artemisia californica*	(NA)	60.16
California sagebrush–California buckwheat	*Artemisia californica–Eriogonum fasciculatum*	(NA)	35.14
California sagebrush–California buckwheat-white sage	*Artemisia californica–Eriogonum fasciculatum*	*Artemisia californica–Eriogonum fasciculatum–Salvia apiana*	31.42
Deer weed scrub	*Lotus scoparius*	(NA)	–
Hairy yerba santa scrub	(NA)	(NA)	–
Scale broom scrub (includes disturbed)	*Lepidospartum squamatum*	(NA)	373.20
White sage scrub	*Salvia apiana*	(NA)	3.01
Chamise chaparral	*Adenostoma fasciculatum*	(NA)	15.74
Chaparral whitethorn chaparral	*Ceanothus leucodermis*	(NA)	–
Hoary leaf ceanothus–chamise	*Ceanothus crassifolius*	*Ceanothus crassifolius* –	119.56

Habitat Types/ Vegetation Communities	Alliance	Association	Total Impacts[1] (Acres)
		Adenostoma fasciculatum	
Birch leaf mountain mahogany chaparral	*Cercocarpus montanus*	(NA)	4.97
Birch leaf mountain mahogany–California buckwheat	*Cercocarpus montanus*	*Cercocarpus montanus–Eriogonum fasciculatum*	–
		Scrub and chaparral subtotal	*658.41*
Urban/Developed	(NA)	(NA)	39.15
Disturbed Habitat	(NA)	(NA)	130.25
		Disturbed and developed subtotal	*169.40*
Total			**827.82**

Notes:
[1] Impacts are considered permanent and includes the fuel modification zone.

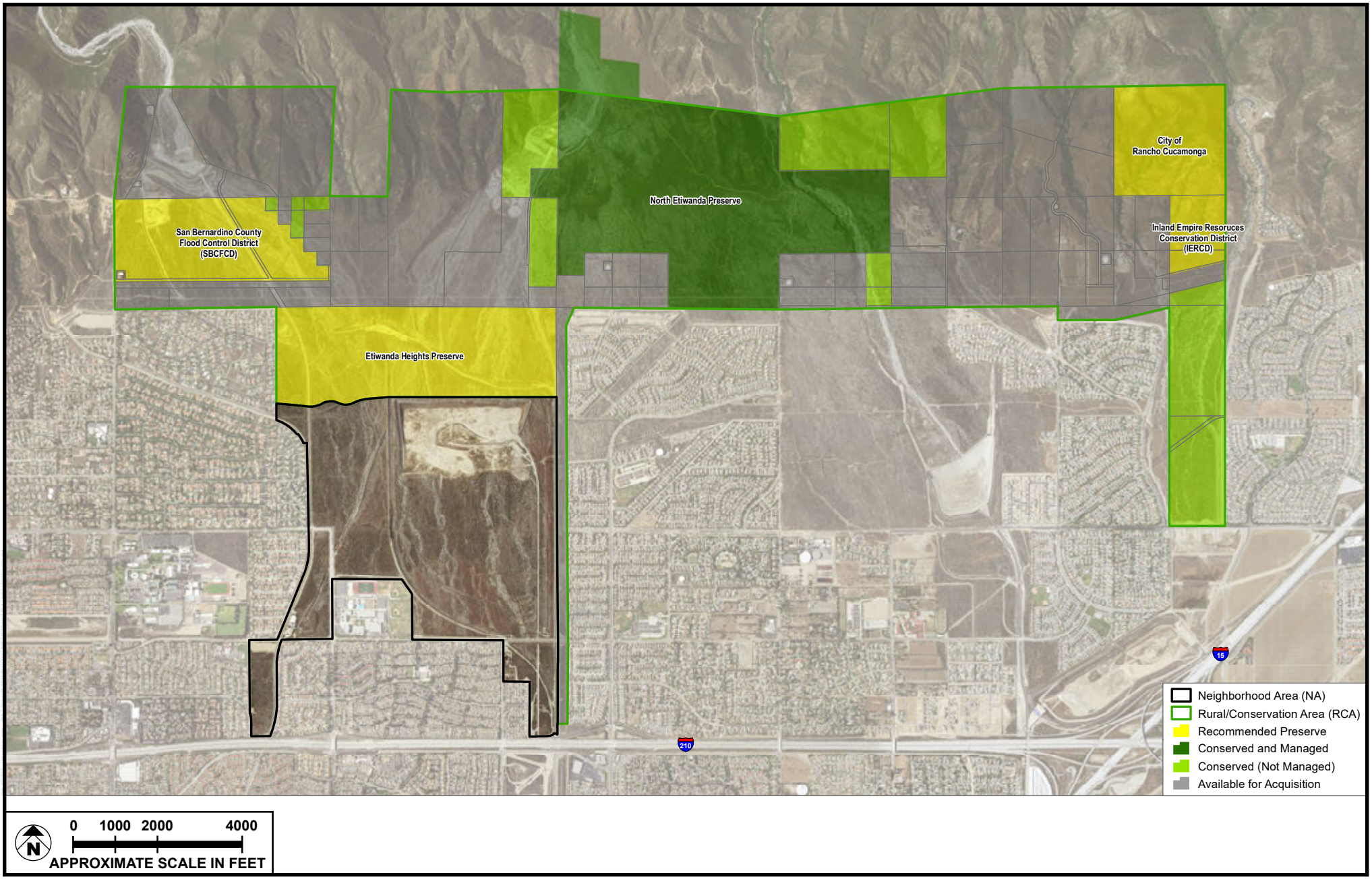
A minimum of 752.42 acres of sensitive upland vegetation communities, as summarized in **Table 4.3-10** below, shall be preserved in the Etiwanda Heights Preserve and RCA for impacts occurring within the NA.

Table 4.3-10
Minimum Mitigation Required for Impacts to Sensitive Upland Vegetation Communities

Vegetation Community	Permanent Impacts – NA (acres)	Mitigation Ratio[1]	Mitigation Required (acres)
Scale Broom Scrub	373.20	2:1	746.40
White Sage Scrub	3.01	2:1	6.02
Total	**376.21**	**—**	**752.42**

Notes:
[1] Mitigation ratio subject to agency approval.
[2] Mitigation lands may include other vegetation communities in addition to scale broom and white sage scrub.

In order to mitigate for impacts to sensitive upland vegetation communities, lands within the RCA would be acquired for conservation and long-term management. As shown on **Figure 4.3-8: RCA Potential Conservation Lands**, the EHNCP recommends the following areas be acquired for conservation within the RCA: the 337-acre Etiwanda Heights Preserve; a 200-acre SBCFCD-owned parcel located in the northwestern portion of the RCA;



SOURCE: Sargent Town Planning - 2019; Skyscene - 2016; NAIP - 2017

FIGURE **4.3-8**

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RCA Potential Conservation Lands

072-004-18

and a 212-acre area, including a parcel owned by the City of Rancho Cucamonga and two smaller parcels owned by the Inland Empire Resource Conservation District, located in the northeastern corner of the RCA. These areas, which total 749.04 acres, make up the Recommended Preserve displayed on **Figure 4.3-8** and summarized in **Table 4.3-11: Potential Conservation Lands within the Rural/Conservation Area**. To fully mitigate for impacts within the NA, additional lands would be acquired within the RCA. There is a total of 1,713.71 acres of lands available for acquisition within the RCA. Therefore, mitigation of impacts through acquisition of an additional 3.38 acres would be feasible.

The RCA also contains lands that are both conserved and actively managed (i.e., North Etiwanda Preserve) and those that are conserved but not managed (**Table 4.3-11**). The EHNCP will prioritize the conservation of the areas between the North Etiwanda Preserve and the two recommended preserves, RCA Etiwanda Heights Preserve and the SBCFCD parcel, by providing a transfer of development rights program to encourage and enable expanded conservation to link the three preserves into one. There is an additive value to preserving lands surrounding the existing North Etiwanda Preserve, which is discussed in detail below.

The proposed acquisition approach for mitigation will provide the following benefits: (1) reduce the risk of development within the RCA, (2) provide a large habitat block with connectivity to existing preserve areas for the protection of sensitive habitat used by special-status species, (3) allow for enhancement of

Table 4.3-11
Potential Conservation Lands within the Rural/Conservation Area

Land Designation	Conserved (Not Managed)	Recommended Preserve	Available for Acquisition (Conservation and Management)	Conserved and Managed
North Etiwanda Preserve	–	–	–	652.45
RCA Etiwanda Heights Preserve[1]	–	336.85	–	–
San Bernardino County Flood Control District (SBCFCD)	11.23	200.24	–	–
U.S. Forest Service[2]	77.23	–	–	–
City of Rancho Cucamonga		159.78		
Inland Empire Resource Conservation District		52.18		
Private	87.66	–	1,252.84	–
Public	274.22	–	460.86	–
Total[3]	**450.34**	**749.04**	**1,713.71**	**652.45**

Notes:

[1] These lands will be conveyed into the RCA Etiwanda Heights Preserve for conservation and management with Plan implementation.

[2] These lands are managed by the U.S. Forest Service; however, there is no formal management plan.

[3] Totals may not sum due to rounding.

distressed or disturbed vegetation communities within the conserved area, (4) allow for type conversion (restoration) of disturbed or non-native land covers to native communities, (5) include a comprehensive Preserve Management and Monitoring Plan to direct management of the entire contiguous block of land, and (6) include a financial source to pay for management of the entire preserve area. There are areas within the RCA currently designated by the County of San Bernardino General Plan (County of San Bernardino 2007a) as Special Development Residential, Hillside Residential and Rural Living, where residential and commercial development are allowed. Under the EHNCP, these rights are retained, allowing limited rural residential development on privately owned property in the RCA. By acquiring lands within the RCA for purposes of mitigation, these areas would be managed in perpetuity as preserve areas, therefore reducing the amount of available lands slated for future development within the RCA. Without a comprehensive acquisition and management plan, large portions of the existing area would be available for development.

Due to the adjacency of the NA and the RCA, there is an overlap in the type of sensitive resources present within both sites. However, the NA contains areas of higher disturbance than the RCA, and the NA is surrounded on three sides by development. The RCA is less disturbed and contains a contiguous block of conservation areas identified in Chapter 6 of the Rancho Cucamonga General Plan (City of Rancho Cucamonga 2010a), the North Etiwanda Preserve Management Plan (USFWS and CDFG 2010) and various mitigation lands, making it a more appropriate place for mitigation to occur. Nonetheless, as noted above, if sufficient land is not conserved, impacts would be significant.

Indirect Impacts

Short-term indirect impacts to vegetation communities would primarily result from construction-related dust, which could disrupt plant vitality in the short term, as well as soil erosion and runoff. Long-term indirect impacts on vegetation communities would most likely occur as a result of trampling of vegetation by humans and domestic pets, invasion by exotic species, alteration of the natural fire regime, and exposure to urban pollutants (e.g., fertilizers, pesticides, herbicides, and other hazardous materials). Indirect impacts to vegetation communities would be less than significant with implementation of Mitigation Measure **MM BIO-9**, which would require impacts to occur only within the disturbance limits, use of best management practices (BMPs) and erosion control, control of invasive weeds, and avoiding the use of toxic substances that could affect plant life.

Threshold BIO-3: **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?**

Rural/Conservation Area

Direct Impacts

There is an estimated 34 acres of jurisdictional resources regulated under ACOE, RWQCB, and/or CDFW on privately owned lands located within the RCA as shown on **Figure 4.3-9: Jurisdictional Resources on Privately Owned Lands within the RCA**. Although the exact location and amount of impacts on privately owned lands located within the RCA site is unknown, impacts to jurisdictional resources regulated by ACOE, RWQCB, and/or CDFW would be significant under CEQA and would require mitigation. Mitigation for significant impacts to jurisdictional resources on private properties located within the RCA would be implemented according to the mitigation ratios and measures as determined through separate review and approval by regulatory agencies. New homes are permitted only in the Hillside and Open Space Regulating Sub-zones, require Design Review, and are subject to the Hillside Development Ordinance where applicable (see Chapter 7.7 of the Plan and 17.16.140 of the Rancho Cucamonga Municipal Code). The allowance of new homes is controlled by Sub-area (Table 5.9.1B of the Plan) and sub-zone (Table 5.9.1A of the Plan). Applications will be reviewed for compliance with the standards of this chapter of the Plan. More specifically, as stated under the Rural Regulating zone that applies to the RCA, no structure may be built within 50 feet of any Blue Line Stream on any current map prepared by the U.S. Department of the Interior Geological Survey (USGS) or contains significant riparian or streambed environs.

Indirect Impacts

The EHNCP supports jurisdictional resources regulated by the ACOE, RWQCB, and CDFW. Jurisdictional aquatic resources are typically affected in the short term by dust and construction-related soil erosion and runoff. Indirect impacts to jurisdictional resources would be significant absent mitigation and would be avoided with the implementation of Mitigation Measure **MM BIO-9**, which would require impacts to occur only within the disturbance limits, use of BMPs and erosion control, and avoiding the use of toxic substances that could affect waterways.

Neighborhood Area

Direct Impacts

There would be permanent impacts to 71.38 acres of non-wetland waters or streambeds under ACOE, RWQCB, and/or CFDW jurisdiction within the NA site. Impacts to jurisdictional resources would be considered significant absent mitigation and would require obtaining the appropriate agency permits, as

stated in Project Requirement (PR) PR-BIO-1. Direct impacts to these jurisdictional resources would remain significant even with Mitigation Measure **MM BIO-2**, which would require conservation and restoration of jurisdictional resources at a minimum 1:1 ratio (though the ratio may increase through permitting discussions with the ACOE/RWQCB/CDFW) within the RCA. Nonetheless, as noted above, if sufficient land is not conserved, impacts would be significant. **Table 4.3-12**: **Impacts to Jurisdictional Resources within the Neighborhood Area,** summarizes the impacts to non-wetland waters and/or streambeds within the NA, and the features are displayed on **Figure 4.3-6.**

Table 4.3-12
Impacts to Jurisdictional Resources within the Neighborhood Area

Jurisdictional Resource	Total Impacts[1] (Acres)
ACOE/RWQCB/CDFW	
Non-wetland Waters/Streambed	71.22
CDFW-only	
Streambed	0.16
Total jurisdictional acreage[1]	**71.38**

Notes:
1 Modeling based on 4 percent annual chance (25-year) floodplain with a minimum depth threshold of 0.2 feet.

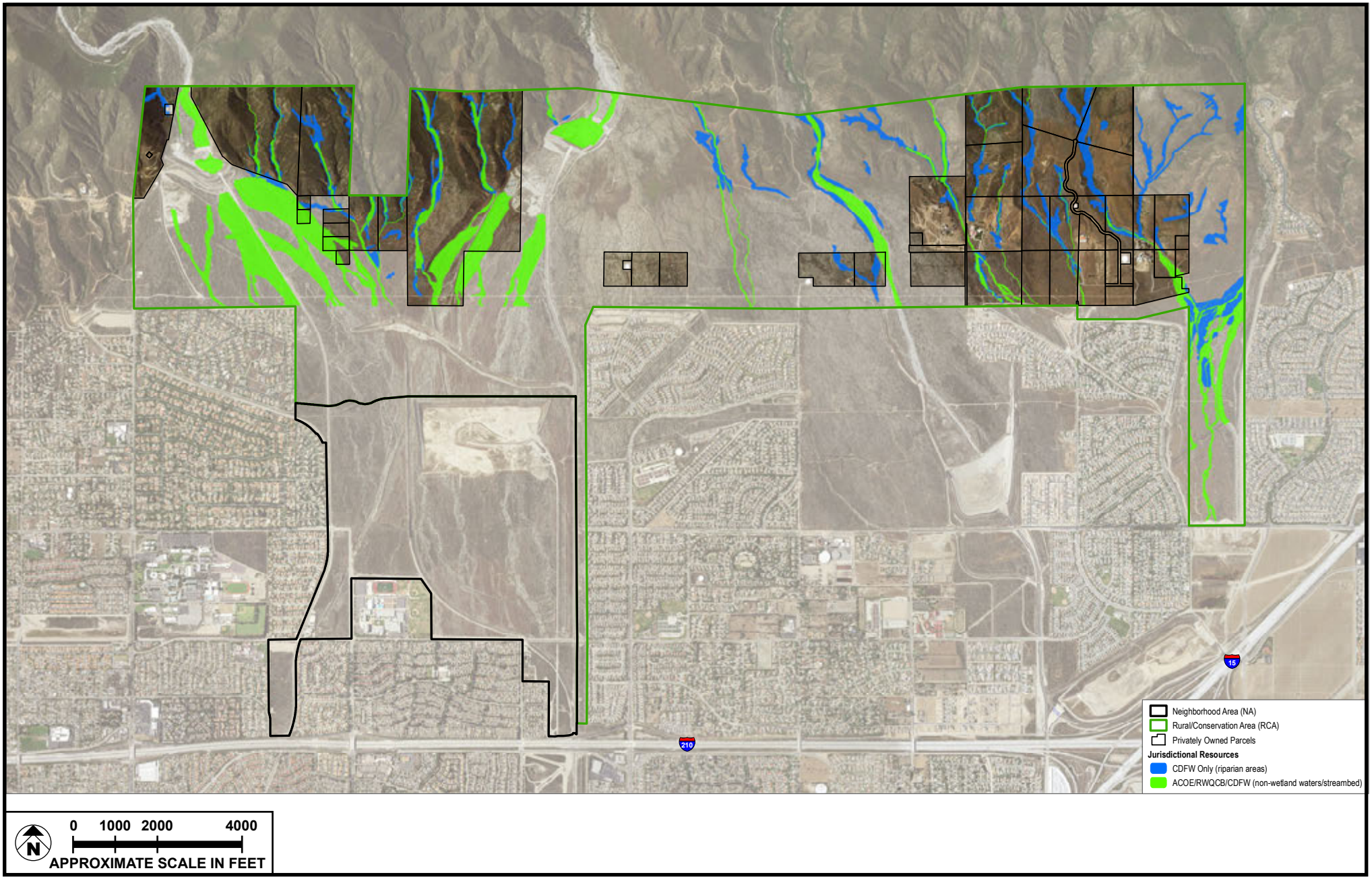
Indirect Impacts

The EHNCP supports jurisdictional resources regulated by the ACOE, RWQCB, and CDFW. Jurisdictional aquatic resources are typically affected in the short term by dust and construction-related soil erosion and runoff. Indirect impacts to jurisdictional resources would be less than significant with implementation of Mitigation Measure **MM BIO-9**, which would require impacts to occur only within the disturbance limits, use of BMPs and erosion control, and avoiding the use of toxic substances that could affect waterways.

Threshold BIO-4: 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?

Rural/Conservation Area

The RCA is entirely within the San Gabriel–San Bernardino Connection as shown on **Figure 4.3-5**The RCA contains large blocks of existing open space that offer suitable habitat for wildlife movement and life history needs (**Figure 4.3-5**). However, the RCA does not function as a corridor due to the lack of physical constraints that would prevent wildlife movement. Instead, it functions as an intact large block of habitat for a variety of species – providing all of the necessary life-history needs for these species.



SOURCE: DUDEK - 2019; Sargent Town Planning - 2019

FIGURE **4.3-9**

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Jurisdictional Resources on Privately Owned Lands within the RCA

072-004-18

As shown on **Figures 4.3-8 and 4.3-9**, the privately-owned lands are dispersed throughout the RCA and are located adjacent to the recommended preserve areas and existing conservation lands, including the North Etiwanda Preserve. Therefore, development on privately owned lands within the RCA could prevent connectivity between the large blocks of existing and proposed conservation areas and would increase the amount of interface (or "edge") between development and open space. However, the adoption of the EHNCP would limit the amount of development to 100 homes, approximately 630 acres, on privately owned lands within the RCA. Additionally, the EHNCP includes policies, programs, and significant financial incentives to encourage private property owners within the RCA to sell their development rights to the developer of the NA and to designate their land for permanent conservation. Impacts to wildlife movement and corridors on privately owned lands within the RCA site would be considered less than significant since the RCA does not function as a corridor due to the lack of physical constraints that would prevent wildlife movement.

Neighborhood Area

There are no wildlife corridors within the NA, but activities proposed within the NA would impact areas identified as the San Gabriel–San Bernardino Connection as shown on **Figure 4.3-6**. The EHNCP proposes establishing three new preserves in the RCA, totaling approximately 749 acres. These areas have the potential to be directly connected into national forest lands located to the north, thus being potentially directly connected to very large blocks of contiguous habitat through on-going conservation expansion. Therefore, no significant impacts to wildlife corridors or habitat linkages are anticipated. It should be noted that the NA has been sited adjacent to existing development, which adds the RCA Etiwanda Heights Preserve into one large habitat block, no narrower than 1,000 feet, and allows for the continuation of wildlife movement by maintaining connectivity to the RCA. Impacts to wildlife movement and corridors within the NA site would be considered less than significant.

Threshold BIO-5: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Rural/Conservation Area

Impacts to any trees, shrubs, or plants that meet the heritage tree criteria, as defined by the City of Rancho Cucamonga Tree Preservation Ordinance, on privately owned lands within the RCA would be considered potentially significant. With implementation of mitigation measures, impacts would be reduced to less than significant.

Activities occurring on privately owned lands located within the RCA would be consistent with, and implement, the goals, policies, and programs of the City's General Plan and EIR as well as the North Etiwanda Preserve

Management Plan. Therefore, impacts associated with potential conflicts to the City's General Plan and EIR, and the North Etiwanda Preserve Management Plan are less than significant.

Neighborhood Area

Impacts to any trees, shrubs, or plants that meet the heritage tree criteria, as defined by the City of Rancho Cucamonga Tree Preservation Ordinance, within the NA site would be considered potentially significant. With implementation of mitigation measures, impacts would be reduced to less than significant.

Activities occurring within the NA would be consistent with, and implement, the goals, policies, and programs of the City's General Plan and EIR as well as the North Etiwanda Preserve Management Plan. Therefore, impacts associated with potential conflicts to the City's General Plan and EIR, and the North Etiwanda Preserve Management Plan are less than significant.

Threshold BIO-6: Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?

Rural/Conservation Area

The EHNCP does not conflict with any provisions from an adopted HCP, natural community conservation plan, or other approved local, regional, or state HCP. This would be considered less than significant impact.

Neighborhood Area

The EHNCP does not conflict with any provisions from an adopted HCP, natural community conservation plan, or other approved local, regional, or state HCP. This would be considered less than significant impact.

CUMULATIVE IMPACTS

Some of the cumulative development projects described in **Section 3.0: Environmental Setting** could result in significant impacts to biological resources. The NA of Plan Area is predominantly surrounded by suburban development to the south, east, and west. Future projects within these areas would occur within areas that do not contain significant biological resources. The land within the RCA is largely undeveloped open space and is bordered by lands under the jurisdiction of the U.S. Forest Service (USFS). Pursuant to the USFS mission of sustaining the health, diversity, and productivity of the nation's forests and grasslands, development is limited within this area. Further, the Plan implements the City's General Plan in the RCA and supplements the City's existing hillside development regulations by limiting the number of homes permitted in the RCA and defining additional development standards. Development in the RCA would be no more than 100 residences, and the Plan includes a Conservation Incentive Transfer

of Development Rights (TDR) Program allowing for the voluntary transfer of residential density from privately-owned properties in the RCA to the NA in exchange for financial or other negotiated compensation to the RCA property owner. The number of residential units that may be transferred from the RCA parcel to a NA phase/sub-area is the number of units that could be developed on the RCA parcel considering the maximum density allowed based on the zone, slope, and other environmental constraints (e.g., fault zone, wildfire and Wildland-Urban Interface (WUI), riparian or streambed environs, flood zone, etc.), and thereby reducing the potential for significant impacts to biological resources. Development of these residences would be subject to the guidelines and independent environmental review and mitigation in accordance with the Plan. Implementation of the Plan would not contribute to considerable cumulative impacts to biological resources. As stated previously, all other projects and impacts are contemplated within the urban/developed portions of Rancho Cucamonga so additional cumulative impacts are not anticipated. Impacts associated with habitat modification, species identified as a candidate, sensitive, or special-status, and jurisdictional aquatic resources within the NA are considered potentially significant if mitigation within the RCA is not feasible. All other impacts on biological resources would be less than significant.

Similarly, impacts related to buildout of the City's Planning Area and Sphere of Influence are anticipated to be less than significant assuming compliance with General Plan policies and existing standard conditions. Additionally, any removal of vegetation or trees as part of the Plan and any future development in the City would be required to comply with existing regulations for the protection of biological resources (e.g., the MBTA, and the City's Tree Preservation Ordinance, and Tree Removal Permit requirements).

As previously stated, any development in the RCA would be subject to the requirements and review procedures of City Municipal Code 17.16.140 (Hillside Development Review). In addition to those requirements, applications for development in the RCA would include or address site-specific biological resources studies and any required permits from State and Federal regulatory agencies. With compliance with RCA Development Design Review procedures and implementation of mitigation measures, impacts would be reduced to less than significant.

As previously discussed, biological resource impacts of the Plan associated with development of the NA have been evaluated above and were found to be less than significant, with compliance with the existing regulations, mitigation measures BIO-1 though BIO-9, preservation of open space, development standards and the provisions outlined in the Specific Plan. Impacts to jurisdictional features and SBKR habitat in the NA, However, if a sufficient amount of suitable habitat cannot be acquired, this impact would remain significant. In consideration of the preceding factors, the Plan's contribution to cumulative biological resources impacts would remain significant.

MITIGATION MEASURES

The following mitigation measures have been identified to reduce potentially significant impacts.

Vegetation Communities

MM BIO-1 Management Plan

A total of 752.42 acres shall be mitigated through preservation of the Etiwanda Heights Preserve and through acquired lands within the RCA for impacts occurring within the NA. Upon adoption of the EHNCP, all lands within the RCA will be subject to a comprehensive Preserve Management and Monitoring Plan to direct management of the entire contiguous block of land, which will include a financial source to pay for management of the entire preserve area. An easement or deed restriction that precludes development will be recorded on the acquired areas within the RCA. A Conservation Management Plan (CMP) will be prepared that specifically identifies required resource management activities and the entities that will be responsible for managing those activities in perpetuity. In compliance with Chapter 3, Conservation Plan, Section 3.5, Conservation Objectives, Strategy 5.2, the CMP shall, at a minimum address the following issues: Non-Native Plant Management, Post-Flood Management, Public Access and Trail Management, Seed Collection and Dispersal Program, SBKR Habitat Management Program, and Fire Management/Fuel Modification Buffer Zones.

Acquired lands within the RCA will include areas containing suitable habitat specifically for coastal California gnatcatcher and San Bernardino kangaroo rat among all other species with potential to occur within the NA. Specifically, lands acquired within the RCA would provide approximately 658 acres of suitable habitat for the San Bernardino kangaroo rat as well as conservation of USFWS Critical Habitat for this species. Since the habitat within the NA is considered low quality, as described in Section 4.4.2, the compensatory mitigation ratio for San Bernardino kangaroo rat shall be 1:1, subject to approval by USFWS. A total of 757.53 acres of impacts to USFWS Critical Habitat for San Bernardino kangaroo rat would occur within the NA. The Recommended Preserve would conserve approximately 550.67 acres of Critical Habitat for San Bernardino kangaroo rat, and there are approximately 833 acres of Critical Habitat for this species available for acquisition within the RCA. Therefore, impacts within the NA would be fully mitigated through acquisition of lands designated as Critical Habitat for San Bernardino kangaroo rat within the RCA - 550.67 acres as part of the Specific Plan, and 282.33 acres of additional preserve acquisition.

Jurisdictional Resources

MM BIO-2 Jurisdictional Resources

Prior to the issuance of any land development permits that impact jurisdictional resources, including clearing and grubbing or grading permits, sufficient acreage within RCA or elsewhere shall be conserved, enhanced, or restored to cover all impacts to waters of the United States and CDFW-only areas at a 1:1 ratio (additional mitigation may be required to satisfy agency requirements). An easement or deed restriction that precludes development will be recorded on the conservation areas. Prior to dedication of the conservation area, a Conservation Management Plan will be prepared that specifically identifies required resource management activities and the entities that will be responsible for managing those activities.

A total of 71.38 acres of mitigation would be required for impacts to jurisdictional resources within the NA. A total of 51.62 acres of non-wetland waters or streambeds within the RCA Etiwanda Heights Preserve would be conserved with Plan implementation. Therefore, in order to mitigate for impacts to jurisdictional resources, a minimum of 19.76 acres would be acquired within the RCA for conservation and management. As stated previously and shown on **Figure 4.3-3**, there are approximately 461.53 acres of jurisdictional resources within the RCA. It should be noted that this total does not include the RCA Etiwanda Heights Preserve since these jurisdictional resources are already accounted for in **Table 4.3-13: Minimum Mitigation Required for Impacts to Jurisdictional Resources.** Therefore, acquisition of lands within the RCA to mitigate impacts to jurisdictional resources would be feasible even with slight changes to the impact footprint. **Table 4.3-13** summarizes the mitigation required for impacts to jurisdictional resources.

Table 4.3-13
Minimum Mitigation Required for Impacts to Jurisdictional Resources

Jurisdictional Resource[1]	Permanent Impacts within NA (acres)	Mitigation Ratio[2]	Mitigation Required (acres)	RCA Etiwanda Heights Preserve (acres)	Other RCA Mitigation Lands (acres)
ACOE/RWQCB/CDFW	71.22	1:1	71.22	46.57	-24.65
CDFW-only	0.16	1:1	0.16	5.05	+4.89
Total	**71.38**	**--**	**71.38**	**51.62**	**19.76**

Notes:
[1] Modeling based on 4 percent annual chance (25-year) floodplain with a minimum depth threshold of 0.2 feet.
[2] Mitigation ratios are subject to agency approval.

Special-Status Species

MM BIO-3 Special-Status Plant Species Monitoring Plan

For species federally and/or state-listed as threatened or endangered, prior to construction activities occurring within occupied habitat, a mitigation and monitoring plan shall be submitted to and approved by the USFWS (for federally listed plants) and/or CDFW (for state-listed plants). Regulatory agency approval is required prior to implementation of the Plan. Prior to Plan implementation, a translocation plan shall be developed and implemented for non-listed plant species, prior to construction activities occurring within occupied habitat for that species.

Based on the current impacts within the NA, two special-status plant species (intermediate mariposa lily and Parry's spineflower) would require translocation of individuals. The mitigation and monitoring plan for the transplanted special-status plant(s) shall describe the following as needed based on plant species: (1) the location of feasible mitigation sites; (2) site preparation measures as needed such as topsoil treatment, soil decompaction, erosion control, temporary irrigation systems, and removal of non-native species; (3) a schedule and action plan to maintain and monitor the mitigation areas; (4) adaptive management measures such as replanting, weed control, or erosion control to be implemented if habitat improvement/restoration efforts are not successful; (5) the source of all plant propagules (seed, potted nursery stock, etc.) and the quantity and species of seed or potted stock of all plants to be introduced or planted into the restoration/enhancement areas; (6) a schedule and action plan to maintain and monitor the enhancement/restoration areas, to include at minimum, qualitative annual monitoring for revegetation success and site degradation due to erosion, trespass, or animal damage for a period no less than two years; (7) as needed where sites are near trails or other access points, measures such as fencing, signage, or security patrols to exclude unauthorized entry into the restoration/enhancement areas; and (8) contingency measures such as replanting, weed control, or erosion control to be implemented if habitat improvement/restoration efforts are not successful.

Take of any listed species, or collection and transplantation of any individuals and populations of any listed species, will require approval by the USFWS and/or CDFW and issuance of an Incidental Take Permit.

MM BIO-4 Coastal California Gnatcatcher Surveys

No clearing, grubbing, grading, or other construction activities shall occur during the coastal California gnatcatcher (*Polioptila californica californica*) breeding season (March 1 to August 15). If construction activities cannot be completed outside coastal California gnatcatcher breeding season, then a pre-construction survey shall be conducted in all areas of suitable habitat, by a qualified biologist (possessing a valid Endangered Species

Act Section 10(a)(1)(a) Recovery Permit). If found during pre-construction surveys, a 500-foot buffer would be required around the nest site.

For potential impacts associated with construction noise, presence or absence of coastal California gnatcatcher would be determined by pre-construction surveys conducted by a qualified biologist adjacent to the NA. Coastal sage scrub outside of the impact area would be flagged to protect it from construction equipment as directed by the biologist. Between March 1 and August 15, no noise-generating construction activities that exceed ambient noise levels would occur in close proximity to occupied habitat. If necessary, other measures shall be implemented in consultation with the biologist as necessary, to reduce noise levels. Measures may include, but are not limited to, limitations on the placement of construction equipment and the simultaneous use of equipment.

MM BIO-5 Burrowing Owl Surveys

Prior to issuance of any land development permits, including clearing, grubbing, and grading permits, an approved biologist to conduct focused pre-construction surveys for burrowing owl (*Athene cunicularia*) shall be retained. The surveys shall be performed no earlier than 30 days prior to the commencement of any clearing, grubbing, or grading activities. If occupied burrows are detected, the approved biologist shall prepare a passive relocation mitigation plan that outlines appropriate buffering distances and timing and stipulates the passive relocation process. Any impacted occupied burrows would be replaced at a minimum 2:1 ratio proximate to the location of impact. The plan would be subject to review and approval by the wildlife agencies and the City, including any subsequent burrowing owl relocation plans to avoid impacts from construction-related activities.

MM BIO-6 Nesting Bird Surveys

Construction activities involving vegetation removal shall be avoided during nesting bird season, from approximately March 15 through September 15, as directed by Section 4.4 of the City of Rancho Cucamonga General Plan (City of Rancho Cucamonga 2010a). If construction activities cannot be completed outside the nesting bird season, a pre-construction nesting bird survey shall be conducted. Special attention shall be given during surveys for ground-nesting birds (e.g., killdeer (*Charadrius vociferus*), lesser nighthawks (*Chordeiles acutipennis*), northern harriers (*Circus cyaneus*)) due to the amount of nests observed during field surveys. Surveys shall be conducted within 500 feet of disturbance areas no earlier than 3 days prior to the commencement of disturbance. If construction activities are delayed, then additional pre-construction surveys shall be conducted such that no more than 3 days will have elapsed between the survey and ground-disturbance activities.

If active nests are found, clearing and construction shall be postponed or halted within a buffer area, established by the qualified biologist, that is suitable to the particular bird species and location of the nest, until the nest is vacated and juveniles have fledged, as determined by the biologist. The construction avoidance area shall be clearly demarcated in the field with highly visible construction fencing or flagging, and construction personnel shall be instructed on the sensitivity of nest areas. A biologist shall serve as a construction monitor during those periods when construction activities will occur near active nest areas to ensure that no inadvertent impacts on these nests occur. The results of the surveys, including graphics showing the locations of any active nests detected, and documentation of any avoidance measures taken, shall be submitted to CDFW and the City within 14 days of completion of the pre-construction surveys or construction monitoring to document compliance with applicable state and federal laws pertaining to the protection of native birds.

MM BIO-7 Small Mammal Trapping and Clearance Surveys

Thirty days prior to construction activities in suitable habitat, a qualified biologist shall conduct a survey within the proposed construction disturbance zone and within 200 feet of the disturbance zone for pallid bat (*Antrozous pallidus*), American badger (*Taxidea taxus*), northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*), Los Angeles pocket mouse (*Perognathus longimembris brevinasus*), and San Diego desert woodrat (*Neotoma lepida intermedia*).

MM BIO-7a. No earlier than 30 days prior to the commencement of construction activities, a pre-construction survey shall be conducted by a qualified biologist to determine if active roosts of bats are present on or within 300 feet of the NA disturbance boundaries. Should an active maternity roost be identified (in California, the breeding season of native bat species is generally from April 1 through August 31), the roost shall not be disturbed, and construction within 300 feet shall be postponed or halted, until the roost is vacated and juveniles have fledged. Surveys shall include rocky outcrops, caves, structures, and large trees (particularly trees 12 inches in diameter or greater at 4.5 feet above grade with loose bark or other cavities). Trees and rocky outcrops shall be surveyed by a qualified bat biologist (i.e., a biologist holding a CDFW collection permit and a Memorandum of Understanding with CDFW allowing the biologist to handle bats). If active maternity roosts or hibernacula are found, the rock outcrop or tree occupied by the roost shall be avoided (i.e., not removed) by the NA. If avoidance of the maternity roost must occur, the bat biologist shall survey (through the use of radio telemetry or other CDFW approved methods) for nearby alternative maternity colony sites. If the bat biologist determines in consultation with and with the approval of CDFW that there are alternative roost sites used by the maternity colony and young are not present then no further action is required.

If a maternity roost will be impacted by the activities proposed within the NA, and no alternative maternity roosts are in use near the site, substitute roosting habitat for the maternity colony shall be provided on,

or in close proximity to, the NA no less than 3 months prior to the eviction of the colony. Large concrete walls (e.g., on bridges) on south or southwestern slopes that are retrofitted with slots and cavities are an example of structures that may provide alternative potential roosting habitat appropriate for maternity colonies. Alternative roost sites must be of comparable size and proximal in location to the impacted colony. CDFW shall also be notified of any hibernacula or active nurseries within the construction zone.

If non-breeding bat hibernacula are found in trees scheduled to be removed or in crevices in rock outcrops within the grading footprint, the individuals shall be safely evicted, under the direction of a qualified bat biologist, by opening the roosting area to allow airflow through the cavity or other means determined appropriate by the bat biologist (e.g., installation of one-way doors). In situations requiring one-way doors, a minimum of 1 week shall pass after doors are installed and temperatures should be sufficiently warm for bats to exit the roost because bats do not typically leave their roost daily during winter months in southern coastal California. This action should allow all bats to leave during the course of 1 week. Roosts that need to be removed in situations where the use of one-way doors is not necessary in the judgment of the qualified bat biologist in consultation with CDFW shall first be disturbed by various means at the direction of the bat biologist at dusk to allow bats to escape during the darker hours, and the roost tree shall be removed or the grading shall occur the next day (i.e., there shall be no less or more than one night between initial disturbance and the grading or tree removal). These actions should allow bats to leave during nighttime hours, thus increasing their chance of finding new roosts with a minimum of potential predation during daylight.

If an active maternity roost is located on the NA, and alternative roosting habitat is available, the demolition of the roost site must commence before maternity colonies form (i.e., prior to March 1) or after young are flying (i.e., after July 31) using the exclusion techniques described above.

MM BIO-7b. Thirty days prior to construction activities in scrub and chaparral habitats, or other suitable habitat a qualified biologist shall conduct a survey within the proposed construction disturbance zone and within 200 feet of the disturbance zone for American badger.

If American badgers are present, occupied habitat shall be flagged and ground-disturbing activities avoided within 50 feet of the occupied den. Maternity dens shall be avoided during the pup-rearing season (February 15 through July 1) and a minimum 200-foot buffer established. This buffer may be reduced based on the location of the den upon consultation with CDFW. Maternity dens shall be flagged for avoidance, identified on construction maps, and a qualified biologist shall be present during construction. If avoidance of a non-maternity den is not feasible, badgers shall be relocated either by trapping or by slowly excavating the burrow (either by hand or mechanized equipment under the direct supervision of the biologist, removing no more than 4 inches at a time) before or after the rearing season (February 15 through July 1). Any relocation of badgers shall occur only after consultation

with CDFW. A written report documenting the badger removal shall be provided to CDFW within 30 days of relocation.

Collection and relocation of animals shall only occur with the proper scientific collection and handling permits.

MM BIO-7c. Trapping and relocation for northwestern San Diego pocket mouse and Los Angeles pocket mouse will occur in all areas of soil disturbance and construction, if required by CDFW.

MM BIO-7d. If active San Diego desert woodrat nests (stick houses) are identified within the disturbance zone or within 100 feet of the disturbance zone, a fence shall be erected around the nest site adequate to provide the woodrat sufficient foraging habitat at the discretion of the qualified biologist in consultation with CDFW. Clearing and construction within the fenced area will be postponed or halted until young have left the nest. The biologist shall serve as a construction monitor during those periods when disturbance activities will occur near active nest areas to ensure that no inadvertent impacts to these nests will occur. If avoidance is not possible, the following sequential steps shall be taken: (1) all understory vegetation will be cleared in the area immediately surrounding active nests, followed by a period of one night without further disturbance to allow woodrats to vacate the nest; (2) each occupied nest will then be disturbed by a qualified wildlife biologist until all woodrats leave the nest and seek refuge off site; and (3) the nest sticks shall be removed from the NA and piled at the base of a nearby hardwood tree (preferably a coast live oak or California walnut). Relocated nests shall not be spaced closer than 100 feet apart, unless a qualified wildlife biologist has determined that a specific habitat can support a higher density of nests. All woodrat nests moved shall be documented and a written report provided to CDFW. All woodrat relocation shall be conducted by a qualified biologist in possession of a scientific collecting permit.

MM BIO-8 Reptile Clearance Surveys

A qualified biologist will be present during construction activities immediately adjacent to or within habitat that supports populations of special-status reptile species. Clearance surveys for special-status reptiles shall be conducted by the qualified biologist prior to the initiation of construction each day. Results of the surveys and relocation efforts shall be provided to CDFW in the annual mitigation status report. Collection and relocation of animals shall only occur with the proper scientific collection and handling permits.

Indirect Impacts

MM BIO-9 Indirect Impacts to Special-Status Resources

The following best management practices shall be implemented to minimize indirect impacts to special-status resources:

1. **Biological Monitor.** Prior to issuance of land development permits, including clearing, grubbing, grading, and/or construction permits, written confirmation that a qualified biologist has been retained to implement the NA's biological monitoring program shall be provided. The letter shall include the names and contact information of all persons involved in the biological monitoring of the NA. The biological monitor shall attend all pre-construction meetings and be present during the removal of any vegetation to ensure that the approved limits of disturbance are not exceeded and provide periodic monitoring of the impact area including, but not limited to, trenches, stockpiles, storage areas, and protective fencing. The biological monitor shall be authorized to halt all associated NA activities that may be in violation of any permits issued by agencies having jurisdictional authority over the NA.

   Before construction activities occur in areas containing sensitive biological resources, all workers shall be educated by the qualified biologist to recognize and avoid those areas that have been marked as sensitive biological resources.

2. **Worker Environmental Awareness Program (WEAP).** Prior to grading and construction activities, a qualified biologist shall be retained to conduct a Worker Environmental Awareness Program (WEAP) for all construction/contractor personnel. A list of construction personnel who have completed training prior to the start of construction shall be maintained on site, and this list shall be updated as required when new personnel start work. No construction worker may work in the field for more than 5 days without participating in the WEAP. The qualified biologist shall provide ongoing guidance to construction personnel and contractors to ensure compliance with environmental/permit regulations and mitigation measures. The qualified biologist shall perform the following:

   - Provide training materials and briefings to all personnel working on site. The material shall include but not be limited to the identification and status of plant and wildlife species, significant natural plant community habitats (e.g., riparian), fire protection measures, and review of mitigation requirements.
   - A discussion of the federal and state Endangered Species Acts, Migratory Bird Treaty Act, other state or federal permit requirements and the legal consequences of non-compliance with these acts;
   - Attend the pre-construction meeting to ensure that timing/location of construction activities do not conflict with other mitigation requirements (e.g., seasonal surveys for nesting birds, pre-construction surveys, or relocation efforts);

- Conduct meetings with the contractor and other key construction personnel describing the importance of restricting work to designated areas. Maps showing the location of special-status wildlife or populations of rare plants, exclusion areas, or other construction limitations (e.g., limitations on nighttime work) will be provided to the environmental monitors and construction crews prior to ground disturbance. This applies to pre-construction activities, such as site surveying and staking, natural resources surveying or reconnaissance, establishment of water quality best management practices, and geotechnical or hydrological investigations;
- Discuss procedures for minimizing harm to or harassment of wildlife encountered during construction and provide a contact person in the event of the discovery of dead or injured wildlife;
- Ensure that haul roads, access roads, and on-site staging and storage areas are sited within grading areas to minimize degradation of vegetation communities adjacent to these areas (if activities outside these limits are necessary, they shall be evaluated by the biologist to ensure that no special-status species habitats will be affected);
- Conduct a field review of the staking (to be set by the surveyor) designating the limits of all construction activity;
- Ensure and document that required pre-construction surveys and/or relocation efforts have been implemented;
- Be present during initial vegetation clearing and grading; and
- Submit to CDFW an immediate report (within 72 hours) of any conflicts or errors resulting in impacts to special status biological resources.

3. **Construction Fencing.** The construction limits shall be flagged prior to ground-disturbance activities, and all construction activities, including equipment staging and maintenance, shall be conducted within the flagged disturbance limits. Fencing shall remain in place during all construction activities. Prior to release of grading and/or improvement bonds, a qualified biologist shall provide evidence that work was conducted as authorized under the approved land development permit and associated plans.
4. **Toxic Substances.** Prior to the issuance of grading permits, evidence shall be submitted indicating that the use of chemicals or the generation of by-products such as pesticides, herbicides, and animal waste, and other substances that are potentially toxic or impactive to native habitats/flora/fauna (including water) shall incorporate measures to reduce impacts caused by the application and/or drainage of such materials into the conservation area within the NA. No trash, oil, parking, or other construction/development-related material/activities shall be allowed outside any approved construction limits. All construction-related activity that may have potential for leakage or intrusion shall be monitored by the qualified biologist.

5. **Worker Guidelines**. All trash and food-related waste shall be placed in self-closing containers and removed regularly from the site to prevent overflow. Workers shall not feed wildlife or bring pets to the NA.

6. **Best Management Practices/Erosion/Runoff**. The NA will incorporate methods to control runoff, including a stormwater pollution prevention plan to meet National Pollutant Discharge Elimination System (NPDES) regulations. Implementation of stormwater regulations are expected to substantially control adverse edge effects (e.g., erosion, sedimentation, habitat conversion) during and following construction both adjacent and downstream from the study area. Typical construction best management practices specifically related to reducing impacts from dust, erosion, and runoff generated by construction activities would be implemented. During construction, material stockpiles shall be placed such that they cause minimal interference with on-site drainage patterns. This will protect sensitive vegetation from being inundated with sediment-laden runoff. Dewatering shall be conducted in accordance with standard regulations of the Regional Water Quality Control Board (RWQCB). An NPDES permit, issued by RWQCB to discharge water from dewatering activities, shall be required prior to start of dewatering. This will minimize erosion, siltation, and pollution within sensitive vegetation communities.

7. **Noise**. To minimize disturbance to wildlife nesting or breeding activities in surrounding habitat, loud construction activities (e.g., pile driving) shall be avoided to the extent feasible from February 1 to August 31. Loud construction activities may be permitted outside of this period from August 31 to February 1.

8. **Invasive Weeds.** The spread of invasive weeds shall be minimized through landscape plans to ensure that the proposed plant palette is consistent with the native species on site. The landscape plan shall also incorporate a manual weeding program for areas adjacent to the conservation areas of the NA. The manual weeding program shall describe, at a minimum, the entity responsible for controlling invasive species, the maintenance activities and methods required to control invasive species, and a maintenance/ monitoring schedule.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts to biological resources after consideration of the proposed mitigation is described below:

BIO-1 – RCA Impacts on candidate, sensitive, or special status species-Significant Impact; case by case mitigation for homes developed on private property in the RCA

Impacts associated with habitat modifications, on any species identified as a candidate, sensitive, or special status species in the RCA is potentially significant and specific mitigation would be applied as appropriate to reduce potential impacts on a case by case basis. if applicable to individual projects in the RCA, Mitigation Measures **MM BIO-4** to **MM BIO-9** would apply. However, in the absence of project-specific details, it is assumed that potential impacts associated with development of individual homes in the RCA, even with development standards and review procedures as defined in the Plan, may result in potentially significant impacts to sensitive status species.

BIO-1- NA Impacts on candidate, sensitive, or special status species – Significant Impact; may be mitigated with conservation in RCA

Impacts associated with habitat modifications, on any species identified as a candidate, sensitive, or special status species in the NA is potentially significant. Impacts to these species would be reduced to less than significant through conservation of lands within the RCA (Mitigation Measure **MM BIO-1**) and implementation of Mitigation Measures **MM BIO-2** to **MM BIO-9**. However, if a sufficient amount of suitable habitat cannot be acquired, this impact would remain significant.

BIO-2 – RCA Impacts to riparian habitat or other sensitive natural community – Significant Impact; case by case mitigation

Direct Impacts

Impacts on riparian habitat or other sensitive natural community in the RCA is potentially significant and specific mitigation would be applied as appropriate to reduce potential impacts on a case by case basis. if applicable to individual projects in the RCA, Mitigation Measure **MM BIO-9** would apply. However, in the absence of project-specific details, it is assumed that potential impacts associated with development of individual homes in the RCA, even with development standards and review procedures as defined in the Plan, may result in potentially significant impacts to riparian habitat or other sensitive natural community in the RCA.

BIO-2 – NA Impacts to riparian habitat or other sensitive natural community – Significant Impact; may be mitigated with conservation in RCA

Mitigation for significant impacts to sensitive vegetation communities would occur through the acquisition of lands within the RCA (mitigation measure (MM- BIO-1), The EHNCP recommends that creation of a new 337-acre preserve—the Etiwanda Heights Preserve within the RCA. This 337-acre area is a portion of the surplus property that the County proposes to sell to the developer of the NA and is located immediately north of the NA. The proposed Etiwanda Heights Preserve is composed of two areas: A) 200 acres of property currently encumbered with an Open Space Easement as noted in Section 3.6 of the Plan, which allows intense recreational uses such as sport parks, golf courses, and equestrian centers. The EHNCP recommends that these 200 acres be permanently conserved as habitat, rather than subject to any number of "recreational uses" that would remove existing habitat; and B) 137-acres of adjoining area directly to the west. The EHNCP recommends that this adjacent area also be permanently conserved as a habitat. A total of 217.61 acres of scale broom scrub would be conserved within the RCA Etiwanda Heights Preserve with project implementation. However, if a sufficient amount of suitable habitat cannot be acquired, this impact would remain significant.

Indirect Impacts

Short-term indirect impacts to vegetation communities would primarily result from construction-related dust, which could disrupt plant vitality in the short term, as well as soil erosion and runoff. Long-term indirect impacts on vegetation communities would most likely occur as a result of trampling of vegetation by humans and domestic pets, invasion by exotic species, alteration of the natural fire regime, and exposure to urban pollutants (e.g., fertilizers, pesticides, herbicides, and other hazardous materials). Indirect impacts to vegetation communities in the RCA and NA would be less than significant with implementation of Mitigation Measure **MM BIO-9**, which would require impacts to occur only within the disturbance limits, use of best management practices (BMPs) and erosion control, control of invasive weeds, and avoiding the use of toxic substances that could affect plant life.

BIO-3 – RCA Impacts on state or federally protected wetlands - Less than Significant with Mitigation

Impacts on state or federally protected wetlands (including but not limited to marsh, vernal pool, coastal, etc.) in the RCA would be significant under CEQA and would require mitigation. Mitigation for significant impacts to jurisdictional resources on private properties located within the RCA would be implemented according to the mitigation ratios and measures as determined through separate review and approval by regulatory agencies. New homes are permitted only in the Hillside and Open Space Regulating Sub-zones, require Design Review, and are subject to the Hillside Development Ordinance where applicable (see Chapter 7.7 of the Plan and 17.16.140 of the Rancho Cucamonga Municipal Code). The allowance of new homes is controlled by Sub-area (Table 5.9.1B of the Plan) and sub-zone (Table 5.9.1A of the Plan). Applications will be reviewed for compliance with the standards of this chapter of the Plan. More specifically, as stated under the Rural Regulating zone that applies to the RCA, no structure may be built within 50 feet of any Blue Line Stream on any current map prepared by the U.S. Department of the Interior Geological Survey (USGS) or contains significant riparian or streambed environs.

BIO-3 – NA Impacts on state or federally protected wetlands - Significant; may be mitigated with conservation in RCA

Impacts to jurisdictional resources in the NA would be considered significant absent mitigation and would require obtaining the appropriate agency permits, as stated in Project Requirement (PR) PR-BIO-1. Direct impacts to these jurisdictional resources would remain significant even with Mitigation Measure **MM BIO-2**, which would require conservation and restoration of jurisdictional resources at a minimum 1:1 ratio (though the ratio may increase through permitting discussions with the ACOE/RWQCB/CDFW) within the RCA. Nonetheless, as noted above, if sufficient land is not conserved, impacts would be significant.

Indirect impacts to jurisdictional resources in the RCA and NA would be significant absent mitigation and would be avoided with the implementation of Mitigation Measure **MM BIO-9**, which would require impacts to occur only within the disturbance limits, use of BMPs and erosion control, and avoiding the use of toxic substances that could affect waterways.

BIO-4 – RCA Impacts to wildlife movement and corridors - Less than significant

Impacts to wildlife movement and corridors on privately owned lands within the RCA site would be considered less than significant since the RCA does not function as a corridor due to the lack of physical constraints that would prevent wildlife movement.

BIO-4 – NA Impacts to wildlife movement and corridors - Less than Significant.

There are no wildlife corridors within the NA, and as such, impacts to wildlife movement and corridors within the NA site would be considered less than significant.

BIO-5- RCA Conflict with any local policies or ordinances protecting biological resources - Less than Significant.

Activities occurring on privately owned lands located within the RCA would be consistent with, and implement, the goals, policies, and programs of the City's General Plan and EIR as well as the North Etiwanda Preserve Management Plan. Therefore, impacts associated with potential conflicts to the City's General Plan and EIR, and the North Etiwanda Preserve Management Plan are less than significant.

BIO-5 – NA Conflict with any local policies or ordinances protecting biological resources - Less than Significant

Activities occurring within the NA would be consistent with, and implement, the goals, policies, and programs of the City's General Plan and EIR as well as the North Etiwanda Preserve Management Plan. Therefore, impacts associated with potential conflicts to the City's General Plan and EIR, and the North Etiwanda Preserve Management Plan are less than significant.

BIO-6 – RCA Conflict with any provisions from an adopted HCP, natural community conservation plan, or other approved local, regional, or state HCP - Less than Significant

The EHNCP does not conflict with any provisions from an adopted HCP, natural community conservation plan, or other approved local, regional, or state HCP. This would be considered a less than significant impact.

BIO-6 – NA Conflict with any provisions from an adopted HCP, natural community conservation plan, or other approved local, regional, or state HCP - Less than Significant

The EHNCP does not conflict with any provisions from an adopted HCP, natural community conservation plan, or other approved local, regional, or state HCP. This would be considered a less than significant impact.