

Table 5-1: Special Status Plant Species Occuring or Potentially Ocurring within the Planning Area

Scientific Name	Common Name	CNPS Listing Status	Preferred Habitat	Records
Angiosperms (Dicotyledons)				
Polygalaceae	Milkwort Family			
Polygala cornuta var. fishiae	Fish's milkwort	4.3	Oak/walnut woodlands and chaparral	Recorded in Chino Hills State Park to the south; high potential to occur in the study area.
Roseaceae	Rose Family			
Horkelia cuneata ssp. puberula	Mesa horkelia	1B.1	Prefers chaparral, woodland, and coastal scrub habitats.	Moderate potential to occur in the study area.

Notes:

1. Federally listed as endangered

CNPS Listing Status:

List 1B - Plants Rare, Threatened, or Endangered in California and elsewhere

List 2 - Plants Rare, Threatened, or Endangered in California, but more common elsewhere

List 3 - Plants about which we need more information – a review list

List 4 - Plants of limited distribution – a watch list

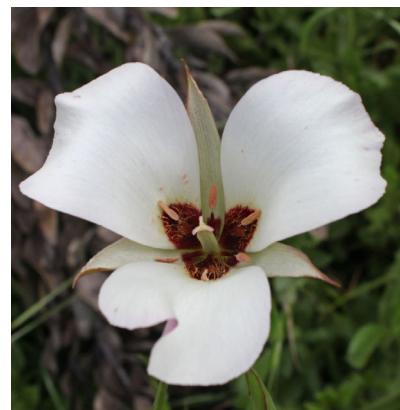
The CNPS recently added "threat ranks," which parallel the ranks used by the California Natural Diversity Database (CNDDB). These ranks are added as a decimal code after the CRPR List (e.g., List 1B.1). The threat codes are as follows:

0.1 - Seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat)

0.2 - Fairly endangered in California (20–80% occurrences threatened)

0.3 - Not very endangered in California (<20% of occurrences threatened or no current threats known)

Source: California Native Plant Society, 2019.



Special-Status Wildlife Species

The CNDD listed 27 sensitive wildlife species in the Planning Area. Table 5-2 provides a summary of the sensitive wildlife species with a low, moderate, or high potential of occurring within the City based upon their known geographic ranges, distributions, and preferred habitats. A selection of these species within close proximity to the Planning Area are mapped in Figure 5-3.



Table 5-2: Special Status Plant Species Occuring or Potentially Ocurring within the Planning Area

Scientific Name	Common Name	Agency Listing Status	Preferred Habitat	Records
INVERTEBRATES				
Bombus crotchii	Crotch bumblebee	S1S2 G3G4	Recorded at scattered locations in southern California.	High potential to occur in study area.
Helminthoglypta tudiculata	Southern California shoulder-band snail	S1S2	Recorded at scattered locations in southern California.	High potential to occur in study area.
Helminthoglypta traskii	Trask's shoulder-band snail	G1G2 S1	Recorded at scattered locations in southern California.	High potential to occur in study area.
VERTEBRATES				
Amphibians				
Pelobatidae	Spadefoot Toad Family			
Spea hammondii	Western spadefoot	SSC	Open areas in lowland grasslands, chaparral, and oak woodlands, areas of sandy or gravelly soil in alluvial fans, washes, and floodplains.	High potential to occur in the study area.

Table 5-2: Special Status Plant Species Occuring or Potentially Ocurring within the Planning Area

Scientific Name	Common Name	Agency Listing Status	Preferred Habitat	Records
Salamandridae	Newt Family			
Taricha torosa	Coast range newt	SSC	Moist woodlands.	Not recorded in the Puente/Chino Hills; low potential to occur in the study area.
Reptiles				
Colubridae	Colubrid Snake Family			
Lampropeltis zonata pulchra	San Diego mountain kingsnake	SSC	Moist woods, woodlands, chaparral and sage scrub.	Moderate potential to occur in study area.
Salvador hexalepis virgultea	Coast patch-nosed snake	SSC	Sage scrub, chaparral, and oak/walnut woodlands.	Moderate potential to occur in study area.
Thamnophis hammondii	Two-striped garter snake	SSC	Riparian and freshwater marshes with perennial water.	Moderate potential to occur in the study area.
Arizona elegans occidentalis	California glossy snake	SSC	Sage scrub, chaparral, and oak/walnut woodlands with loose soil for burrowing.	Moderate potential to occur in the study area.
Emydidae	Turtle Family			
Emmys marmorata	Western pond turtle	SSC	Ponds, slow moving streams.	Known to occur in Brea Creek; moderate potential to occur in suitable habitat elsewhere in the study area.
Iguanidae	Iguanid Lizard Family			
Phrynosoma blainvillii	Coast horned lizard	SSC	Most valley and foothill scrub, chaparral and woodland natural communities.	High potential in open space in the study area.
Teiidae	Whiptail Lizard Family			
Anniella stebbinsi	Southern California legless lizard	SSC	Several habitats but especially in valley-foothill woodlands, chaparral, and scrub habitats.	Moderate potential in habitats in the study area.
Aspidoscelis tigris stejnegeri	Coastal whiptail	SSC	Several habitats but especially in valley-foothill woodlands, chaparral, and scrub habitats.	High potential in habitats in the study area.

Table 5-2: Special Status Plant Species Occuring or Potentially Ocurring within the Planning Area

Scientific Name	Common Name	Agency Listing Status	Preferred Habitat	Records
Viperidae	Viper Snake Family			
<i>Crotalus ruber</i>	Red diamond rattlesnake	SSC	Cactus and sage scrub and chaparral.	High potential in suitable habitats in the study area.
Birds				
Accipitridae	Hawks, Kites, Harriers and Eagle Family			
<i>Aquila chrysaetos</i>	Golden eagle	SSC, SFP, FP	Mountains, deserts, and open country; prefer to forage over grasslands, deserts, savannahs and early successional stages of forest and shrub habitats.	Recorded over the study area; nesting in the Chino Hills; High potential to forage within the study area.
<i>Circus hudsonius</i>	Northern harrier	SSC	Freshwater marshes, grasslands, and agricultural fields.	Recorded in the Tres Hermanos and Firestone Scout Reservation areas.
<i>Elanus leucurus</i>	White-tailed kite	SFP	Grasslands with scattered trees, near marshes, along highways.	Recorded in the Tres Hermanos and Firestone Scout Reservation areas. High potential in study area.
<i>Buteo regalis</i>	Ferruginous hawk	SBSWG	Winters in expansive rangelands and agricultural areas in the region.	Recorded in the Chino Basin; moderate potential to occur in the study area.
Alaudidae	Lark Family			
<i>Eremophila alpestris</i>	Horned lark	SBSWG	Open ground.	Moderate potential to occur in the Tres Hermanos and SOI areas.
Falconidae	Falcon Family			
<i>Falco mexicanus</i>	Prairie falcon	SBSWG	Open country, especially arid.	Moderate potential to occur migrating through the study area.
Strigidae	True Owl Family			
<i>Athene cunicularia</i>	Burrowing owl	SSC	Dry grasslands and agricultural, and scrub areas.	Reported from the Tres Hermanos Ranch High potential to occur within the study area.
<i>Asio otus</i>	Long-eared owl	SSC	Riparian and live oak woodlands.	High particularly in oak and walnut woodlands.
<i>Asio flammeus</i>	Short-eared owl	SSC	Winters in open areas.	Low potential in herbaceous stands.

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Scientific Name	Common Name	Agency Listing Status	Preferred Habitat	Records
Troglodytidae	Wren Family			
<i>Campylorhynchus brunneicapillus</i>	Coastal cactus wren	SSC	Coastal sage scrub, vegetation with thickets of prickly pear or cholla cactus.	Recorded at Sycamore Canyon and Summit Ridge Parks; High potential wherever cactus scrub occurs.
Turdidae	Bluebird Family			
<i>Sialia currucoides</i>	Mountain bluebird	SBSWG	Winters in open country.	Moderate potential to occur in the Tres Hermanos and SOI areas.
Tyrannidae	Tyrant Flycatcher Family			
<i>Empidonax traillii</i>	Willow flycatcher	FE, SE	Low elevational sites: Riparian woodlands that contain water and low growing willow thickets.	Low potential for nesting.
Icteriidae	Yellow-breasted chat Family			
<i>Icteria virens</i>	Yellow-breasted chat	SSC	Riparian woodlands with a thick understory.	High potential along Brea and Tonner Creeks.
<i>Sturnella neglecta</i>	Western meadowlark	SBSWG	Grasslands, prairies, pastures, and abandoned fields.	Recorded in the study area.
Icteridae	Blackbird Family			
<i>Agelaius tricolor</i>	Tricolored blackbird	SE	Freshwater marshes and riparian scrub.	Moderate potential to forage in open areas of Tres Hermanos and Tonner Canyon.
Laniidae	Shrike Family			
<i>Lanius ludovicianus</i>	Loggerhead shrike	SSC	Open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches.	High potential to occur in Tres Hermanos and Tonner Canyon open areas.
Passerellidae	Sparrow Family			
<i>Ammodramus savannarum</i>	Grasshopper sparrow	SSC	Expansive grasslands	Recorded in the study area; moderate potential to occur in Tres Hermanos and Tonner Canyon.
<i>Amphispiza belli belli</i>	Bell's sage sparrow	SSC	Dense, dry chamise chaparral and coastal slopes of coastal sage scrub.	High potential in study area where habitat occurs.

Table 5-2: Special Status Plant Species Occuring or Potentially Ocurring within the Planning Area

Scientific Name	Common Name	Agency Listing Status	Preferred Habitat	Records
<i>Pooecetes gramineus</i>	Vesper sparrow	SBSWG	Open grassy areas.	High potential to occur in Tres Hermanos and Tonner Canyon open areas.
Parulidae	Wood Warbler Family			
<i>Setophaga petechia</i>	Yellow warbler	SSC	Sparse to dense woodland and forest habitats with or without heavy brush understory.	High Potential in oak, riparian and walnut woodlands.
Polioptilidae	Gnatcatchers			
<i>Polioptila californica</i>	California gnatcatcher	FT, SSC	Coastal sage scrub vegetation; generally avoids steep slopes and dense vegetation for nesting.	Several recent recorded occurrences in the study area at Summit Ridge, and Pantera parks, Steep Canyon and hills south of Diamond Ranch High School; high potential in sage scrub habitats.
Vireonidae	Vireo Family			
<i>Vireo bellii pusillus</i>	least Bell's vireo	FE, SE	Perennial and intermittent streams with low, dense riparian scrub and riparian woodland habitats; nests primarily in willows and forages in the riparian and occasionally in adjoining upland habitats. Associated with willow, cot	Reported from Tonner Canyon; Moderate potential to occur along Brea Creek
Cuculidae	Cuckoo Family			
<i>Geococcyx californianus</i>	greater roadrunner	SBSWG	Open country with scattered brush.	Recorded in the study area.
Mammals				
Heteromyidae	Kangaroo Rat, Pocket Mice, and Kangaroo Mice Family			
<i>Chaetodipus fallax</i>	NW San Diego pocket mouse	SSC	Sandy herbaceous areas, usually in association with rocks or coarse gravel, sagebrush, scrub, annual grassland, chaparral and desert scrubs.	High potential in study area particularly in cactus and sage scrub occurs.

Table 5-2: Special Status Plant Species Occuring or Potentially Ocurring within the Planning Area

Scientific Name	Common Name	Agency Listing Status	Preferred Habitat	Records
Molossidae	Free-tailed Bats			
Eumops perotis californicus	Western mastiff bat	SSC	In arid and semi-arid lowlands; roosts in cliffs and rock crevices.	Low potential for roosting sites but may forage in the study area.
Vespertilionidae	Evening Bat Family			
Lasiurus blossevillii	Western red bat		Roosts in cliffs and in buildings.	Moderate potential in study area; roosts in exfoliating bark on many tree species including ornamental trees.
Lasiurus xanthinus	Western yellow bat	SSC	Roosts primarily in palms under dead fronds.	Moderate potential to roost in the study area.
Antrozous pallidus	Pallid bat	SSC	Roosts in cliffs, crevices, mine tunnels, caves, house attics and other man-made structures.	High potential in study area; roosts in exfoliating bark on oak trees.
Leporidae	Rabbit and Hare Family			
Lepus californicus bennetti	San Diego black-tailed jackrabbit	SSC	Open brushlands and scrub habitats.	Moderate potential to occur throughout the study area.
Muridae	Mice, Rats, and Vole Family			
Neotoma lepida intermedia	San Diego desert woodrat	SSC	Chaparral, coastal sage scrub, and oak woodland.	High potential to occur where suitable habitat is found.
Procyonidae	Raccoon Family			
Bassariscus astutus	Ringtail cat	SFP	Commonly found in rocky habitats, where it nests in the hollows of trees or abandoned wooden structures.	Seldom observed; low potential to occur in the study area.
Mustelidae	Weasel Family			
Taxidea taxus	American badger	SSC	Open grasslands with available prey.	High potential to occur in the study area.

Table 5-2: Special Status Plant Species Occuring or Potentially Ocurring within the Planning Area

Scientific Name	Common Name	Agency Listing Status	Preferred Habitat	Records
Notes: Agency Listing Status:				
FE	Federally listed as Endangered			
FT	Federally listed as Threatened			
FP	Federally protected			
SE	State-listed as Endangered			
SFP	State Fully Protected			
SSC	California Species of Special Concern			
NatureServe Ranking:				
S1	Critically Imperiled—Critically imperiled in the state because of extreme rarity (often 5 or fewer populations) or because of factor(s) such as very steep declines making it especially vulnerable to extirpation from the state.			
S2	Imperiled—Imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the state.			
S3	Vulnerable—Vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation from the state.			
S4	Apparently Secure—Uncommon but not rare in the state; some cause for long-term concern due to declines or other factors.			
S5	Secure—Common, widespread, and abundant in the state.			
G1	Critically Imperiled—At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.			
G2	Imperiled—At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.			
G3	Vulnerable—At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors.			
G4	Apparently Secure—Uncommon but not rare; some cause for long-term concern due to declines or other factors.			
G5	Secure—Common; widespread and abundant.			

Source: California Department of Fish and Wildlife Natural Diversity Database, 2018

There may be occurrences of additional species within this area that have not yet been surveyed and/or mapped. Lack of information in the CNDB about a species or an area does not imply that the species does not occur or that there is a lack of diversity in that area. The species shown in Figures 5-3 and 5-4 have the potential to occur outside of the areas where they are depicted.

Given the occurrence of these special-status species within Diamond Bar and its SOI and the potential for others to exist within and surrounding the City, it will be important for the City to ensure the maintenance and protection of the habitats that support them. Strategies may include ensuring that new development avoids or mitigates any impacts that would degrade the healthy function of nearby habitat areas and exploring programs such as conservation or mitigation banking that can preserve, enhance, restore, or create habitat conservation areas that may be threatened by new development.

Sensitive plants include those listed, or candidates for listing, by the U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW), and species considered sensitive by the California Native Plant Society (CNPS), particularly Lists 1A, 1B, and 2.

Sensitive wildlife species include those species listed as endangered or threatened under the Federal Endangered Species Act (FESA) or California's Endangered Species Act (CESA), candidates for listing by USFWS or CDFW, State Species of Special Concern (SSC) by the CDFW, fully protected by CDFW, or on the CDFW watch list.



A conservation or mitigation bank is privately or publicly owned land managed for its natural resource values. In exchange for permanently protecting, managing, and monitoring the land, the bank sponsor is allowed to sell or transfer habitat credits to developers and permittees who must satisfy legal requirements to compensate for the environmental impacts of their developmental project.

Critical Habitat

Critical habitat is defined by the Endangered Species Act as a specific geographic area that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection. USFWS-designated critical habitat does not occur within the City.

Sensitive Natural Communities

Three plant communities considered sensitive by the California

Department of Fish and Wildlife (CDFW) due to their scarcity and/or because they support special status plant and wildlife species have been identified in the Planning Area. These communities are considered highly imperiled communities by the CDFW, indicating that they are declining in acreage throughout their range due to land use changes. These communities are described previously and include Venturan coastal sage scrub, southern willow scrub, and California walnut woodland.

WILDLIFE MOVEMENT

Wildlife movement corridors are generally defined as connections between blocks of habitat that allow for physical movement and genetic exchange between otherwise isolated animal populations. Movement corridors may be local, such as between foraging and nesting or denning areas, or they may be regional in nature, allowing animals to access alternative territories as fluctuating dispersal pressures dictate. In the absence of wildlife corridors, various studies have concluded that some wildlife species, especially the larger and more mobile mammals, will not likely persist over time in fragmented or isolated habitat areas because such conditions preclude the infusion of new individuals and genetic information into isolated populations.

Tonner Canyon, to the southeast of the City, is an important part of a regional wildlife movement corridor, known as the Puente-Chino Hills

Wildlife Corridor, that provides a linkage between the Cleveland National Forest in the Santa Ana Mountains through the Chino Hills and the Puente Hills. Its importance is due not only to its being largely undeveloped, but also because it funnels wildlife movement to the only natural undercrossing of SR-57. The Puente-Chino Hills Wildlife Corridor has been the focus of the Wildlife Corridor Conservation Authority, a public and private coalition, and the Puente Hills Landfill Native Habitat Preservation Authority, which obtain funds to purchase land for the corridor.



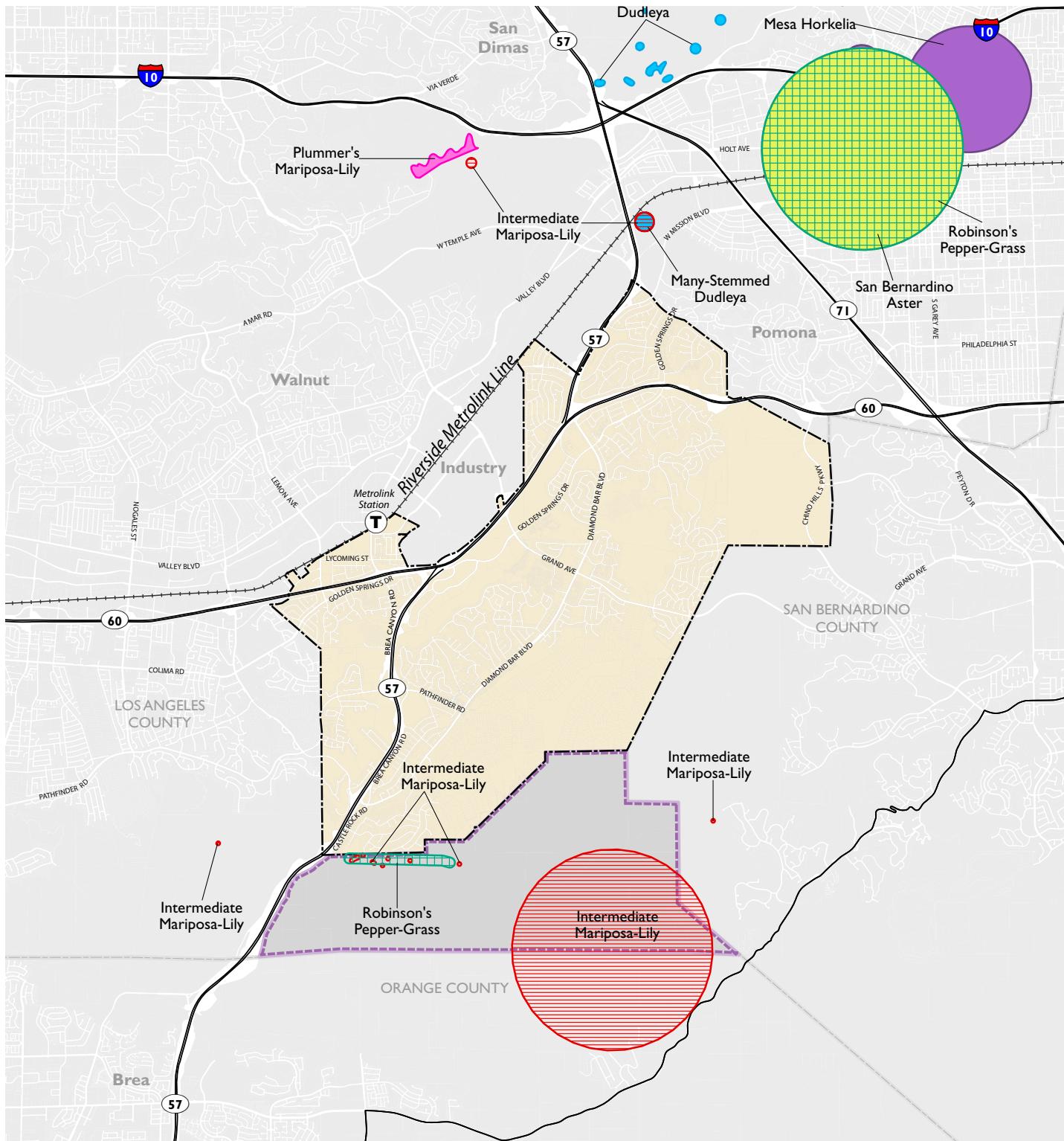


PUENTE HILLS SIGNIFICANT ECOLOGICAL AREA

Significant Ecological Areas (SEAs) are officially designated by Los Angeles County as areas with irreplaceable biological resources. The SEA program is intended to conserve genetic and physical diversity within the county by designating biological resource areas that are capable of sustaining themselves into the future. The intent of the SEA program is established in the County's General Plan, and the permitting, design standards, and review process for development within SEAs are detailed in the SEA Ordinance (Chapter 22.102 of the County Zoning Regulations). The SOI is designated as SEA 15, Puente Hills. The Puente Hills SEA has documented evidence of significant wildlife movement and is the County portion of a continuous series of open spaces within the Puente and Chino hills. It functions as both an important wildlife linkage and resident habitat area for regional wildlife populations. A detailed description of the extents of this SEA as well as its biological resources can be found in Appendix E of the 2035 Los Angeles County General Plan.

Certain uses of the SEAs are compatible by definition with the long-term sustainability of biological resources. Some examples of uses that do not conflict with the goals of the SEA Program include regulated scientific study; passive recreation, including wildlife observation and photography; and limited picnicking, riding, hiking and overnight camping. Many other uses may also be compatible with the SEA Program or may partially or fully mitigate against potential impacts through careful site design and stewardship, including low-density or low-intensity uses, essential public uses, agricultural uses, and extractive uses. More complex or intensive types of developments within SEAs are not precluded from development but may require additional technical review to ensure that projects properly identify existing resources and potential impacts.

Figure 5-3 Special Status Plants



- Robinson's Pepper-Grass
- Intermediate Mariposa-Lily
- Plummer's Mariposa-Lily
- Many-Stemmed Dudleya
- San Bernardino Aster
- Mesa Horkelia

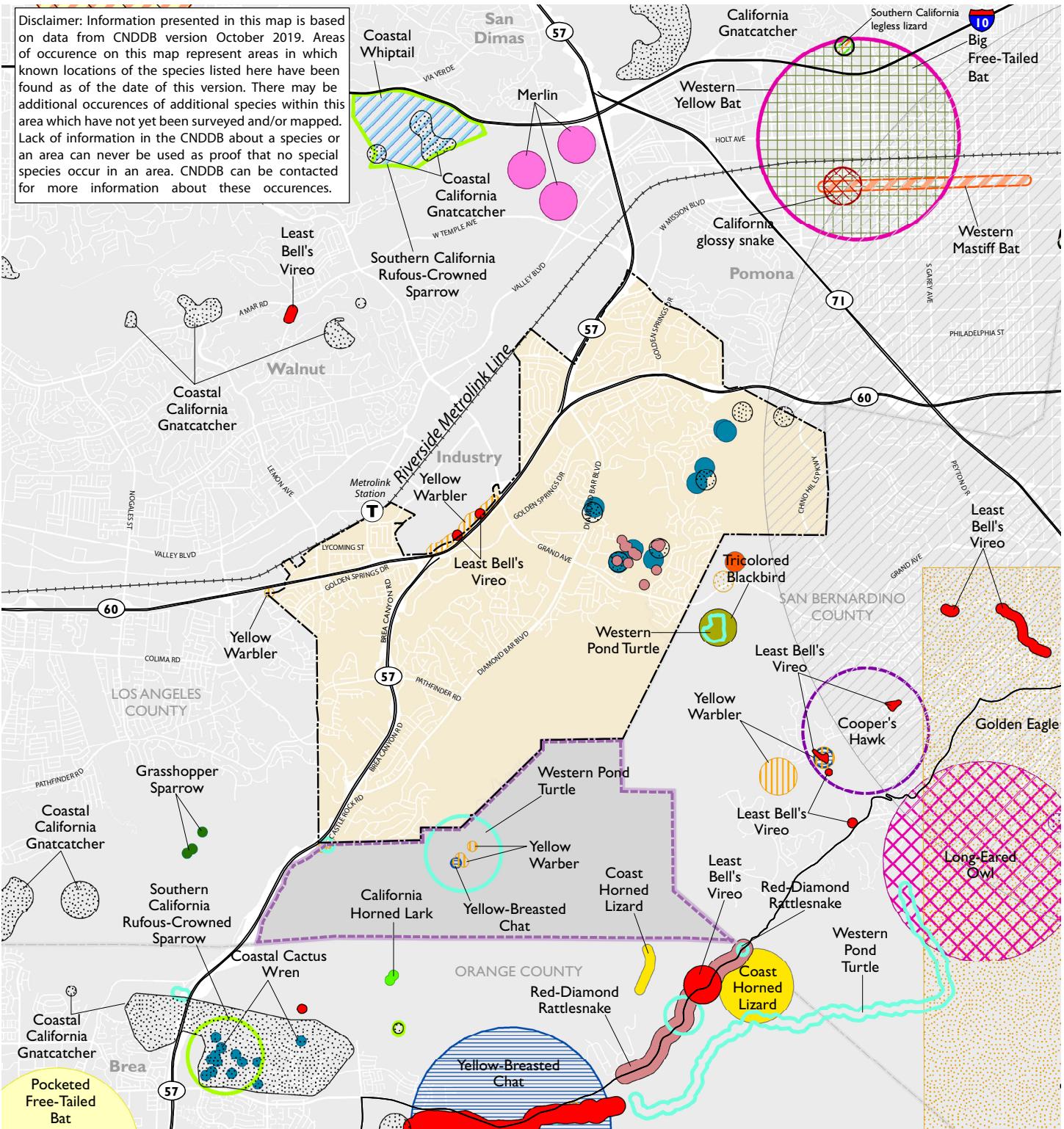
- Major Highways
- City of Diamond Bar
- Sphere of Influence
- County Boundary

Source: CNDB, 2019; Dyett & Bhatia, 2019

Disclaimer: Information presented in this map is based on data from CNDB version April 2019. Areas of occurrence on this map represent areas in which known locations of the species listed here have been found as of the date of this version. There may be additional occurrences of additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDB about a species or an area can never be used as proof that no special species occur in an area. CNDB can be contacted for more information about these occurrences.



Figure 5-4 Special Status Animals



Endangered/Threatened Species

- California black rail
- Coastal California Gnatcatcher
- Least Bell's Vireo

Other Species

- White-tailed kite
- California glossy snake

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|--|--|
| [Symbol: Blue square] | Arroyo chub |
| [Symbol: White square with diagonal lines] | American badger |
| [Symbol: Green square with diagonal lines] | Southern California legless lizard |
| [Symbol: Green square] | Southern California Rufous-Crowned Sparrow |
| [Symbol: Pink square] | Western Yellow Bat |
| [Symbol: Yellow square] | Golden Eagle |
| [Symbol: Purple square] | Long-Eared Owl |
| [Symbol: Orange square] | Yellow Warbler |

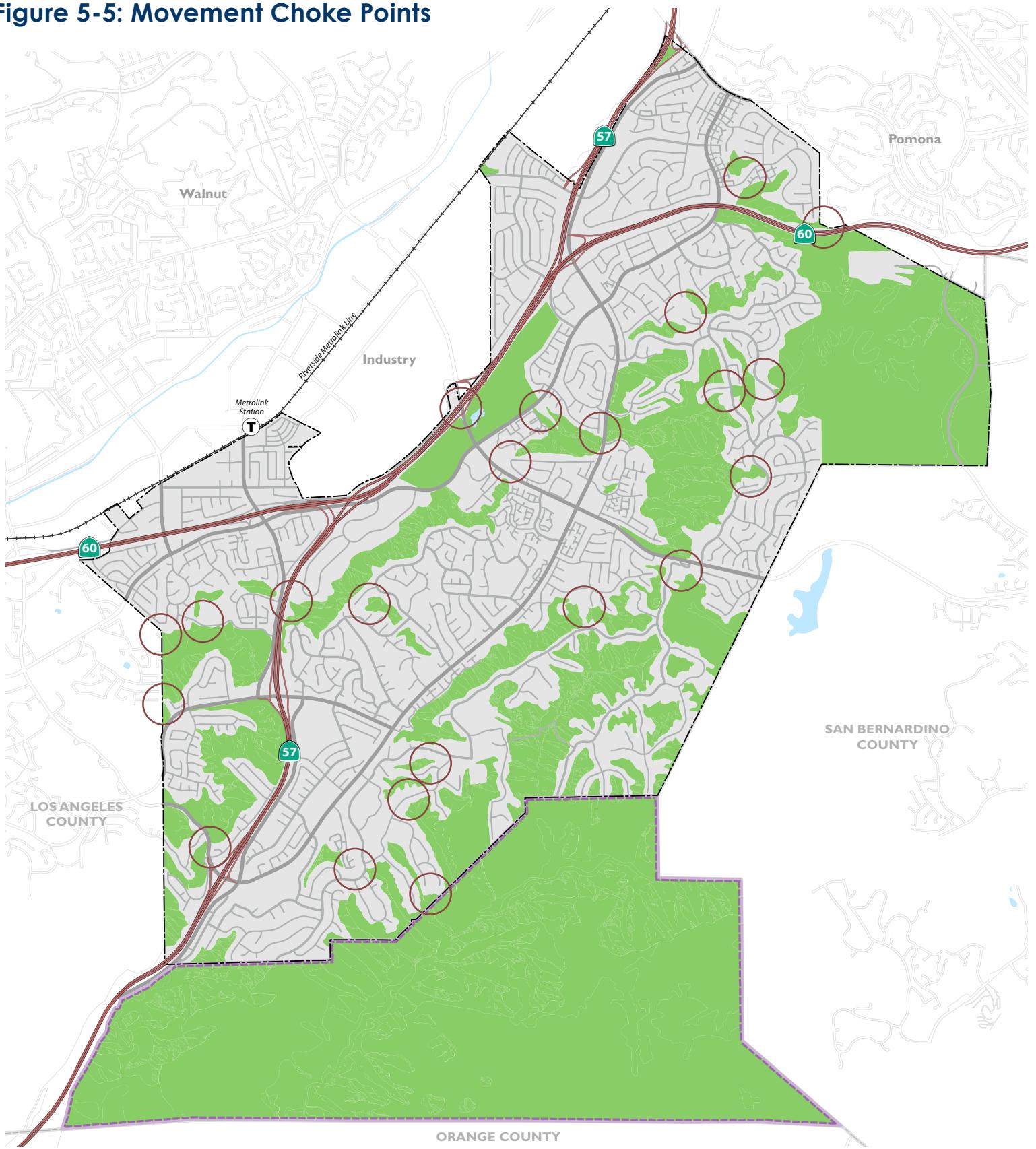
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|---|-------------------------|
| [Symbol: Orange square] | Northern Harrier |
| [Symbol: Orange square with diagonal lines] | Western Mastiff Bat |
| [Symbol: Blue square] | Yellow-Breasted Chat |
| [Symbol: Green square] | California Horned Lark |
| [Symbol: Purple square] | Cooper's Hawk |
| [Symbol: Yellow square] | Big Free-Tailed Bat |
| [Symbol: Red square] | Red-Diamond Rattlesnake |
| [Symbol: Yellow square] | Tricolored Blackbird |
| [Symbol: Cyan square] | Western Pond Turtle |
| [Symbol: Blue square] | Coastal Cactus Wren |

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|---|--------------------------|
| [Symbol: Yellow square with diagonal lines] | Coastal Whiptail |
| [Symbol: Green square] | Grasshopper Sparrow |
| [Symbol: Pink square] | Merlin |
| [Symbol: Yellow square] | Pocketed Free-Tailed Bat |
| [Symbol: Red square] | Red-Diamond Rattlesnake |
| [Symbol: Yellow square] | Tricolored Blackbird |
| [Symbol: Cyan square] | Western Pond Turtle |
| [Symbol: Blue square with diagonal lines] | City of Diamond Bar |

Source: Hamilton Biological, 2019; CNDDB, 2019; Dyett & Bhatia, 2019



Figure 5-5: Movement Choke Points



(○) Choke Points

(□) City of Diamond Bar

(□) Sphere of Influence

(■) Natural Communities

(■) Developed

Source: City of Diamond Bar 2019;
ESA PCR, 2016; Dyett & Bhatia, 2019

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MILES



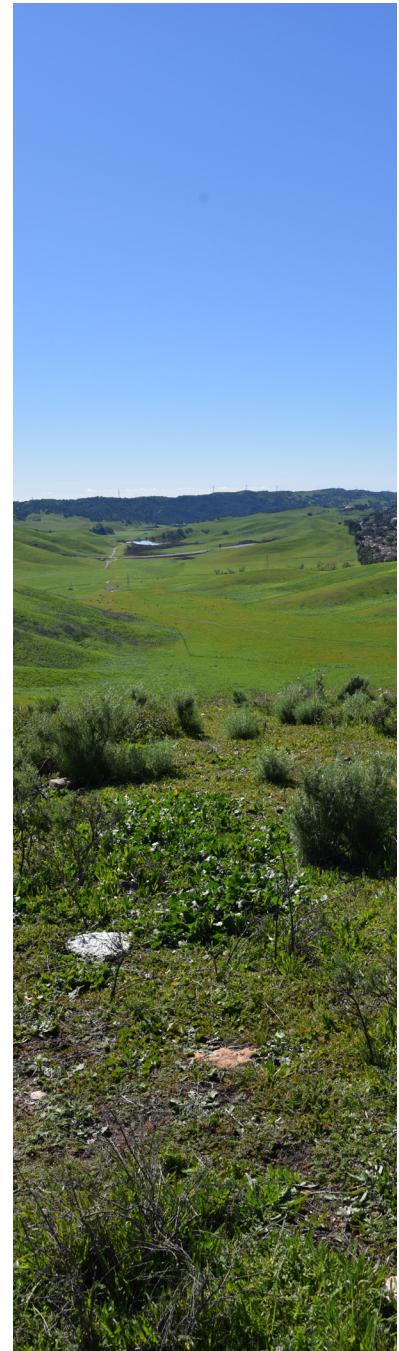
BIOLOGICAL RESOURCES

GOALS

- RC-G-4** Maintain, protect, and preserve biologically significant areas, including Significant Ecological Area (SEA) 15, riparian areas, oak and walnut woodlands, and other areas of natural significance, providing only such recreational and cultural opportunities as can be designed in a way that sustains, repairs or restores ecosystems rather than detracts from them.
- RC-G-5** Protect rare, threatened, endangered, and other special-status plant and animal communities.
- RC-G-6** Utilize native and drought-tolerant vegetation in landscaping, site stabilization and restoration where practical to prevent the spread of invasive plant species into natural open spaces.

POLICIES

- RC-P-9** Require, as part of the environmental review process prior to approval of discretionary development projects involving parcels within, adjacent to, or surrounding a significant biological resource area, a biotic resources evaluation of the site by a qualified biologist. Focused plant surveys shall be conducted at the appropriate time of year, and local reference populations checked to ensure detectability of the target species. Wildlife shall also be evaluated by a qualified biologist through appropriate survey or trapping techniques necessary to determine presence. Such evaluation shall analyze the existing and potential natural resources of a given site as well as the potential for significant adverse impacts on biological resources. The report shall identify measures to avoid, minimize, or mitigate any impacts to species that have been observed or have the potential of being present on the site. In approving any





permit based on the evaluation, the City shall require implementation of mitigation measures supported by the evaluation, or work with the applicant to modify the project if mitigation is determined not to be adequate to reduce the impacts to a non-significant level.

RC-P-10

Require, to the greatest extent feasible, new development to preserve mature native trees including oak and walnut, and trees of significant cultural or historical value such as sycamore and arroyo willow, etc., as set forth under the Diamond Bar Tree Preservation and Protection Ordinance. Review the ordinance periodically and update it as necessary to reflect current best practices.

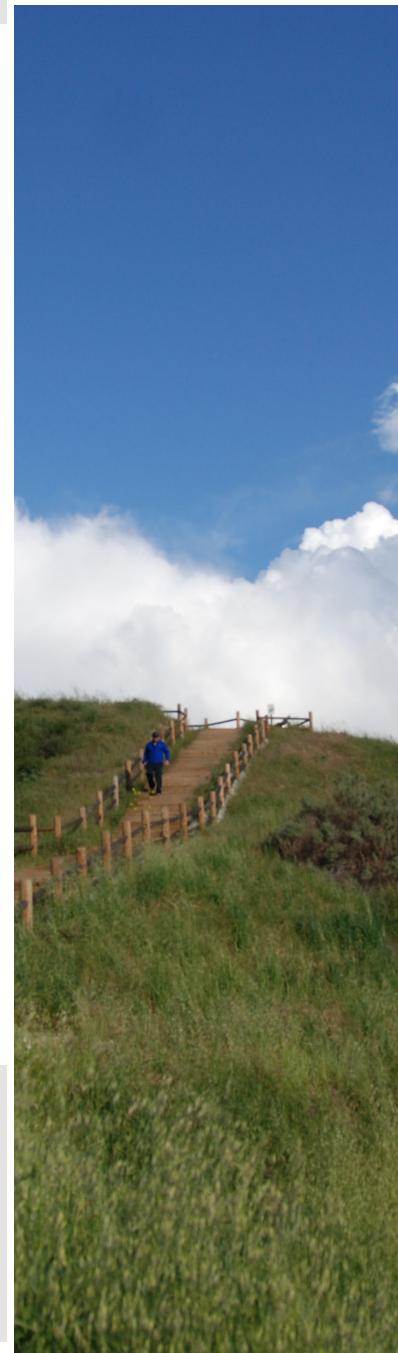
RC-P-11

Require that all development, including roads and trails, proposed adjacent to riparian and other biologically sensitive habitats avoid, to the greatest extent feasible, significant impacts that would undermine the healthy natural functioning of those areas. Require that new development proposed in such locations be designed to:

- a. Minimize to the greatest extent possible or eliminate impacts on environmentally sensitive areas;
- b. Protect the visual seclusion of forage areas from road intrusion by providing vegetative buffering;
- c. Protect wildlife movement linkages to water, food, shelter, and nesting sites;
- d. Allow wildlife and migration access by use of tunnels or other practical means.
- e. Provide vegetation that can be used by wildlife for cover along roadsides;
- f. Avoid intrusion of night lighting into identified areas through properly designed lighting systems;
- g. Avoid impacts to wetlands, natural springs and seeps and maintain access for wildlife or when natural water areas are removed or blocked provide a locally suitable and equal replacement; and

- h. To the greatest extent possible, prevent street water runoff from flowing into waterways.

- RC-P-12** Support and cooperate with the efforts of other local, State, and federal agencies, groups, and private entities—including Los Angeles County, neighboring jurisdictions, and conservation groups—to preserve environmentally sensitive hillsides, canyon areas, wildlife corridors and riparian areas within Diamond Bar's SOI, including the Puente - Chino Hills Wildlife Corridor, Tres Hermanos Ranch, Tonner Canyon, and SEA 15 to provide regional connectivity, and to sustain the ecological function of natural habitats and biological resources.
- Discourage development in areas with identified significant biological resources, such as SEAs.
 - Discourage development in riparian habitats, streambeds, wetlands, coastal sage scrub, cactus scrub, and native woodlands in order to maintain and support their preservation in a natural state, unaltered by grading, fill, or diversion activities.
 - Preserve and restore oak woodlands and other native woodlands that are conserved in perpetuity with a goal of no net loss of existing woodlands.



- RC-P-13** Utilize native and drought-tolerant plants in landscaping for public buildings and parks and encourage the use of native and drought-tolerant species on private property. Develop a list of recommended native, low-water-use, and drought-tolerant plant species, as well as a list of invasive species to avoid.

- RC-P-14** Support and cooperate with the efforts of local school districts, environmental groups and volunteers to offer environmental education programs.

- RC-P-15** Support efforts to establish mitigation bank programs to restore habitat within Open Space-designated and deed-restricted lands.

5.5 WATER RESOURCES

HYDROLOGY

Diamond Bar is almost entirely encompassed by the San Gabriel River Basin, which spans 713 square miles across Los Angeles and Orange Counties. As shown in Figure 5-5, the Planning Area drains into four sub-basins of the San Gabriel River Basin. The northern half of the City primarily drains into San Jose Creek, partially via Diamond Bar Creek. Most of the southern half of the City, as well as the SOI, drains into Brea Canyon Creek. Small areas in the northeast of the City are within the Santa Ana River Basin, draining locally into Chino Creek.

The hydrological system is a critical component of drainage and flood management in the Planning Area, as well as groundwater recharge and potable water supply (see Chapter 7, Public Safety for more information on flood hazards and Chapter 6, Public Facilities and

Services for more information on water supply and stormwater management). The Planning Area's hydrology can be affected by development in the watershed that increases the area of impervious surfaces and reduces vegetative coverage. This type of development can reduce the amount of area that can be used for groundwater recharge and increase the volume and speed of stormwater runoff, which can lead to increased flood risk and erosion of streambeds. Development can also alter the direction that water flows in a watershed, leading to changes in the size and location of surface water bodies. Other changes to surface water can come from sediment from construction activities and erosion. All of these considerations are therefore important issues to address as part of the planning process when siting and designing development.

GROUNDWATER MANAGEMENT

In 2014, California passed the Sustainable Groundwater Management Act (SGMA), to provide a framework for sustainable local groundwater management. The SGMA requires Groundwater Sustainability Plans to be adopted for medium- or high-priority basins by a groundwater sustainability agency (GSA). A Groundwater Sustainability Plan must contain a description of the setting and characteristics of the basin,

measurable objectives to meet the sustainability goal within 20 years of implementation, a planning and implementation horizon, monitoring information and protocols, and consideration of applicable general plans. Diamond Bar is within the boundaries of the Main San Gabriel, Puente and Spadra groundwater basins. Both the Main San Gabriel Basin and Puente Basins have been adjudicated, meaning they are exempt from the SGMA due to their

proof of sustainable management. In order to comply with the SGMA, the Spadra Basin has created a GSA and as of 2019 is developing a Groundwater Sustainability Plan.

While the WVWD currently imports all potable water from the Metropolitan Water District of Southern California (MWD), the Water District has projects underway that will produce groundwater from the San Gabriel

Basin, Central Basin, and Six Basins to supplement potable water supplies. It will thus be important for Diamond Bar to continue to partner with other local agencies and jurisdictions, including the WVWD and groundwater basin management agencies, to manage surface and groundwater resources given the constrained water resources of the region.

WATER QUALITY

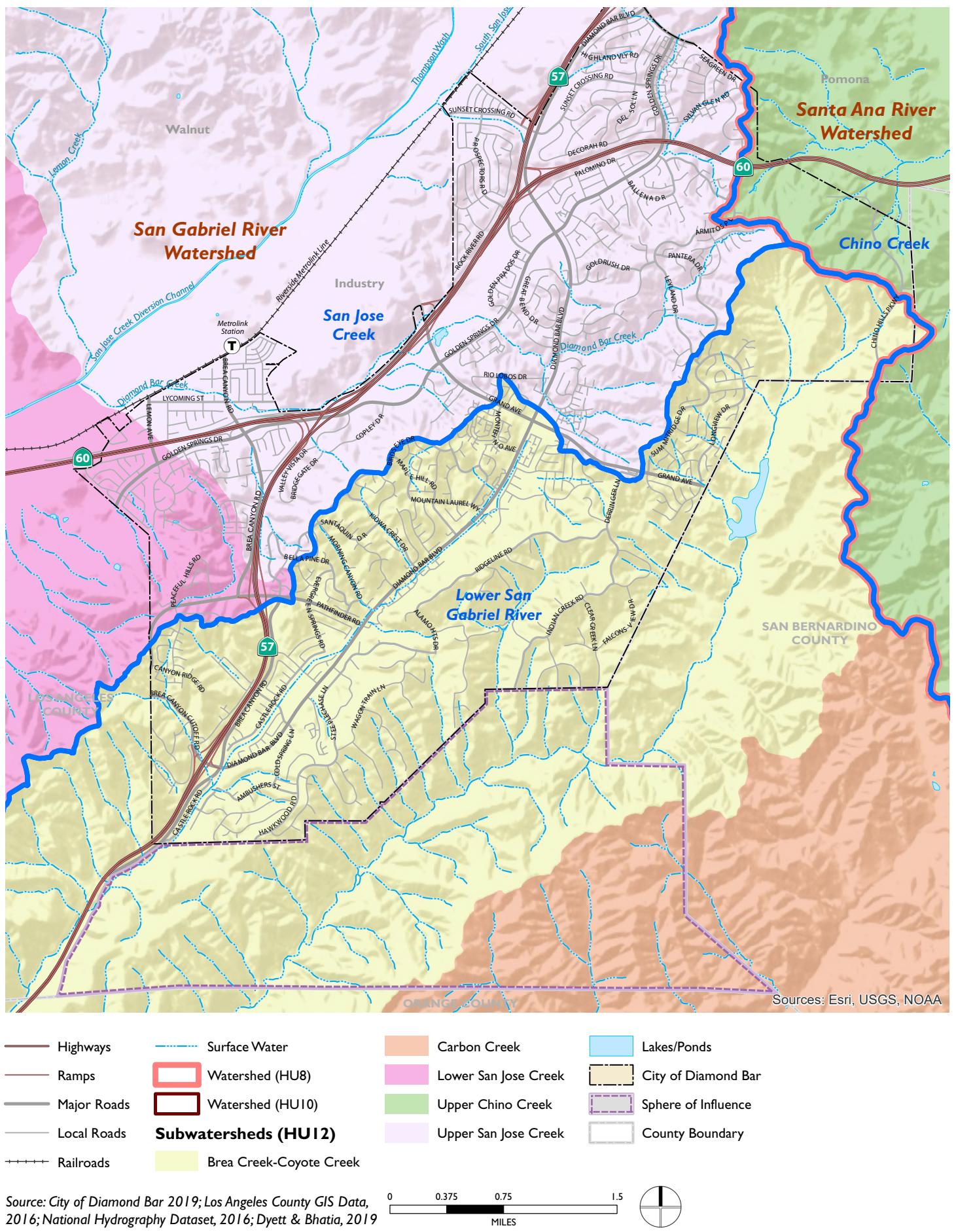
Water quality in the surface and groundwater systems can be affected by point and non-point sources of pollution. Point sources are single identifiable sources of pollution, such as a pipe or a drain, and can be agencies, businesses, or other parties discharging directly to a water body. The National Pollutant Discharge Elimination System (NPDES) is a federal program that regulates point sources of pollution. The City of Diamond Bar stormwater system is regulated by the NPDES Municipal Separate Storm Sewer System (MS4) permit for Los Angeles County.

Non-point pollution comes from many diffuse sources, and generally results from runoff, drainage, seepage, or hydrologic modification. Activities common to life in Diamond Bar such as driving and lawn maintenance produce non-point source pollutants that can enter surface water or groundwater through runoff. Stormwater runoff during storm

events, and runoff from irrigation and other urban uses of water carry contaminants such as gasoline, oil, pesticides, herbicides, and fertilizer into the river or groundwater supply. At high enough concentrations, runoff from these non-point sources could impair uses of surface waters, damage wildlife habitats, and contaminate groundwater sources.

By protecting and improving the quality of its surface and groundwater bodies, the City can help reduce the amount of energy spent treating water before it is used, and ensure the health of habitats and ecosystems. Steps that the City can take include addressing sources of non-point source pollution related to development and the transportation system, educating residents about water consumption and stormwater pollution prevention, and working with other agencies and organizations to protect natural groundwater recharge areas from contamination.

Figure 5-6 Watersheds and Surface Water



WATER RESOURCES

See Chapter 2: Land Use and Economic Development for policies regarding water use and distribution.

GOALS

- RC-G-7** Protect waterways—including creeks, riverines, artesian springs, seeps, and wetlands—and watersheds in Diamond Bar from pollution and degradation as a result of urban activities.
- RC-G-8** Protect natural groundwater recharge areas and regional spreading grounds.
- RC-G-9** Conserve natural open spaces, biological resources, and vegetation to promote groundwater recharge.
- RC-G-10** Minimize the consumption and waste of potable water through water conservation and use of reclaimed water.
- RC-G-11** Work with regional organizations and other jurisdictions to manage groundwater resources of the San Gabriel Valley Basin.
- RC-G-12** Pursue methods to control, capture, and reuse stormwater runoff for the purposes of groundwater recharge and local water recovery.

POLICIES

Water Conservation

- RC-P-16** As opportunities arise, coordinate with local water agencies to encourage and expand the use of reclaimed water, stored rainwater, or household gray water for irrigation and other appropriate uses and consider construction of dual water systems, where feasible, for development
- RC-P-17** Continually evaluate and upgrade the efficiency of City irrigation systems, prioritizing the use of reclaimed water.





RC-P-18 Ensure new development reduces the waste of potable water through the use of native and drought-tolerant plants, efficient landscape design and application, and reclaimed water systems where available.

RC-P-19 Encourage the implementation of the latest water conservation technologies into new developments.

RC-P-20 Ensure developers provide information to prospective buyers or tenants within the City of Diamond Bar regarding drought-tolerant planting concepts.

RC-P-21 Continue to partner with other local agencies to manage surface and groundwater resources through the implementation of the Walnut Valley Urban Water Management Plan and regional watershed and groundwater planning efforts.

Water Quality

RC-P-22 Protect and, where feasible, enhance or restore the City's waterways and drainages, preventing erosion along the banks, removing litter and debris, and promoting riparian vegetation and buffers.

RC-P-23 Ensure that post-development peak stormwater runoff discharge rates do not exceed the estimated pre-development rate and that dry weather runoff from new development not exceed the pre-development baseline flow rate to receiving water bodies.

5.6 AIR QUALITY

Air quality is often understood as a regional issue, as the land use, circulation, and growth decisions made by individual communities inevitably affect regional air quality. The City of Diamond Bar is located within the South Coast Air Basin (Air Basin), which consists of the entire Orange and Los Angeles counties, and the western, non-desert portions of San Bernardino and Riverside Counties, in addition to the San Gorgonio Pass area in Riverside County. The South Coast Air Quality Management District (SCAQMD) is the air pollution control agency for the Air Basin, and it adopts air quality management plans (AQMP) to achieve air quality standards in the Air Basin. The district includes Orange County, most of Los Angeles County, and the western portions of San Bernardino and Riverside counties.

The Air Basin is one of only two areas in the country with extreme nonattainment levels for the federal ozone standard, as indicated in Table 5-3. As of 2012, mobile sources, including cars, trucks, boats, and planes contributed to approximately 88

percent of emissions in the Air Basin. Additionally, the Air Basin also experiences high levels of fine particulate matter. The extent and severity of pollutant concentrations in the Air Basin is a function of the area's natural physical characteristics (weather and topography) and man-made influences (development patterns and lifestyle). Factors such as wind, sunlight, temperature, humidity, rainfall, and topography all affect the accumulation and dispersion of pollutants.

Based on the overall air quality trends of the Air Basin, the largest source of emissions impacting air quality in Diamond Bar comes from mobile sources, particularly given the presence of the SR-57 and SR-60 freeways in the community. Ensuring air quality for individual sites will mean assessing and mitigating the potential impacts of specific pollutant sources such as the freeways. At the citywide and regional levels, the most promising actions to improve air quality would be to not only mitigate emissions from stationary sources, but to also reduce vehicle miles traveled (VMT).



**Table 5-3: South Coast Air Basin Attainment Status
(Los Angeles County)**

Pollutant	National Standards	California Standards
O3 (1-hour standard)	N/A1	Non-attainment – Extreme
O3 (8-hour standard)	Non-attainment – Extreme	Non-attainment
CO	Attainment	Attainment
NO2	Attainment	Non-attainment
SO2	Attainment	Attainment
PM10	Attainment	Non-attainment
PM2.5	Non-attainment	Non-attainment
Lead	Non-attainment	Non-attainment
Visibility Reducing Particles	N/A	Unclassified
Sulfates	N/A	Attainment
Hydrogen Sulfide	N/A	Unclassified
Vinyl Chloride	N/A	N/A2

Notes:

1. The NAAQS for 1-hour ozone was revoked on June 15, 2005, for all areas except Early Action Compact areas.
2. In 1990 the California Air Resources Board identified vinyl chloride as a toxic air contaminant and determined that it does not have an identifiable threshold. Therefore, the California Air Resources Board does not monitor or make status designations for this pollutant.

CRITERIA POLLUTANTS

Certain air pollutants have been designated as “criteria” air pollutants because they are common and widely distributed, and are known to have adverse human health effects and/or cause adverse impacts to the environment either directly or through reactions with other pollutants. Criteria air pollutants are indicators of ambient air quality and include: ozone (O₃), carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), respirable or breathable particulate matter with an aerodynamic diameter of 10 micrometers or less (PM10), fine particulate matter with an aerodynamic diameter of 2.5 micrometers or less (PM2.5), and lead. The criteria pollutants are regulated by the United States Environmental Protection Agency (EPA) at the national level and by the California Air Resources Board (CARB) at the State level, and are subject to respective ambient air quality standards adopted by EPA and CARB.

AIR QUALITY

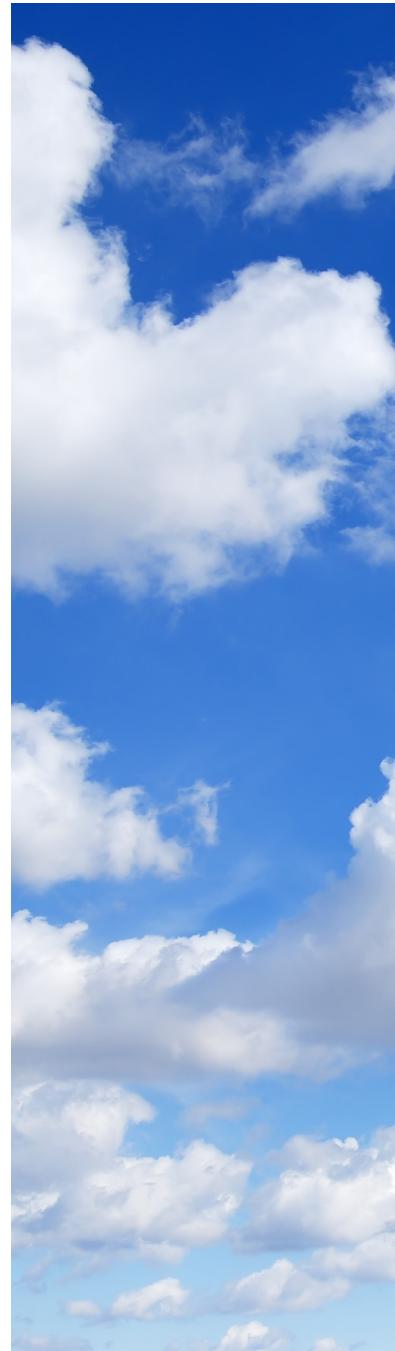
See Chapter 2: Land Use and Economic Development for policies regarding land use and development patterns. See Chapter 4: Circulation for policies regarding the reduction of VMT and multi-modal transportation. See Chapter 8: Community Health for policies regarding energy efficiency and conservation.

GOALS

- RC-G-13** Protect the City's air quality and support efforts to protect and improve regional air quality.
- RC-G-14** Aim for a diverse and efficiently-operated local and regional ground transportation system that reduces VMT and generates the minimum amount of pollutants feasible.

POLICIES

- RC-P-24** Encourage new development to minimize impacts on air quality through the following measures:
- a. Use of building materials and methods that minimize air pollution.
 - b. Use of fuel-efficient heating equipment, and other appliances, such as water heaters, swimming pool heaters, cooking equipment, refrigerators, furnaces, boiler units, and low or zero-emitting architectural coatings.
 - c. Use of clean air technology beyond what is required by South Coast Air Quality Management District (SCAQMD), leveraging State and local funding sources.
- RC-P-25** Conserve natural open spaces, biological resources, and vegetation, recognizing the role of these resources in the reduction and mitigation of air pollution impacts, and the promotion of CO₂ sequestration.
- RC-P-26** Ensure that new development projects are designed and implemented to be consistent with the South Coast Air Quality Management Plan.





RC-P-27 To the extent practicable, maintain a system of air quality alerts (such as through the City website, internet, e-mail to City employees, and other tools) based on SCAQMD forecasts.

RC-P-28 Cooperate with the ongoing efforts of the U.S. Environmental Protection Agency (EPA), SCAQMD, the Southern California Association of Governments (SCAG), and the State of California Air Resources Board in improving air quality in the regional air basin.

RC-P-29 Ensure that project applicants consult with SCAQMD when siting new facilities with dust, odors, or Toxic Air Contaminant (TAC) emissions to avoid siting those facilities near sensitive receptors and avoid siting sensitive receptors near sources of air pollution.

Examples of facilities that may emit TACs as identified by the SCAQMD include dry cleaners, gas stations, auto body shops, furniture repair shops, warehouses, printing shops, landfills, recycling and transfer stations, and freeways and roadways. Refer to SCAQMD guidance for the most current list of facilities that may emit TACs.

RC-P-30 For new or modified land uses that have the potential to emit dust, odors, or TACs that would impact sensitive receptors, require the business owners to obtain all necessary SCAQMD clearances or permits prior to business license or building permit issuance.

Sensitive receptors include residences, schools, childcare centers, playgrounds, parks and other recreational facilities, nursing homes, hospitals, and other medical care facilities.

- RC-P-31** Require new residential developments and other sensitive uses (e.g. schools, daycare centers, playgrounds, and medical facilities) within 500 feet of a freeway to prepare an air quality study of the site that evaluates potential impacts of air pollution on sensitive receptors and associated health risks and identifies measures to feasibly mitigate any impacts to protect the health of residents.

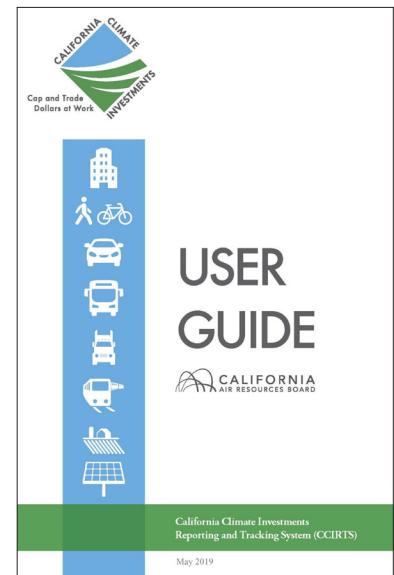
The 500-foot buffer is based on a California Air Resources Board recommendation to avoiding the siting of sensitive uses within 500 feet of a freeway. Because of freeways are so integrated into Diamond Bar's landscape, it may be difficult to prevent the siting of sensitive receptors near the freeways in the future; thus, mitigation measures would be needed for such development. Mitigation measures may include screens, ventilation/air filtration systems, landscape buffering and vegetation, building design measures that locate operable windows, balconies and building air intake away from the emission source, and site design measures including the incorporation of open spaces between buildings to reduce air pollution build up.

- RC-P-32** Promote and support available SCAQMD incentives and funding mechanisms that encourage retrofits to reduce air quality impacts for existing sensitive uses within 500 feet of a freeway.

- RC-P-33** Require construction and grading plans to include State and AQMD-mandated measures to the maximum extent possible fugitive dust and pollutants generated by construction activities and those related to vehicle and equipment cleaning, fueling and maintenance as well as mono-nitrogen oxides (NOx) emissions from vehicle and equipment operations.



WORKING WITH SCAQMD
INCLUDES THE 2-DAY PROJECT





RC-P-34 Facilitate communication among residents, businesses and SCAQMD to quickly resolve air pollution nuisance complaints.

RC-P-35 Promote transit-oriented, walkable, compact development patterns, the provision of non-polluting transportation alternatives, and transportation demand management measures to reduce total vehicle miles traveled.

RC-P-36 Promote expansion of all forms of mass transit to employment, entertainment, and other major destinations in Los Angeles, Riverside, Orange, and San Bernardino counties. Support public transit providers in efforts to increase funding for transit improvements to supplement other means of travel.

RC-P-37 Seek grants and other external funding opportunities to convert the City fleet to zero emissions vehicles over time and in a manner that is fiscally neutral in comparison to conventional fuel vehicles.

RC-P-38 Design traffic plans, including suggested truck routes, to minimize diesel truck idling and the exposure of residential neighborhoods and sensitive receptors to diesel truck traffic.

RC-P-39 Reduce paved road dust emissions through targeted street sweeping of roads subject to high traffic levels and silt loadings.

RC-P-40 Continue to advocate at all levels of government for improvements to the confluence of the SR-57 and SR-60 freeways, including the construction of the missing interchanges between the two freeways, to reduce congestion and delays on the freeways, as well as affected surface streets and on/offramps.

5.6 CULTURAL RESOURCES

HISTORICAL SETTING

The Gabrielino

Diamond Bar and the surrounding area is located within Gabrielino (Gabrieleño, Tongva, or Kizh) territory. The Gabrielino were among the wealthiest, most populous, and most powerful of the aboriginal ethnic nationalities in Southern California. Named after the San Gabriel Mission, the Gabrielino occupied sections of Los Angeles, Orange, and San Bernardino counties, and the islands of San Nicolas, Santa Catalina, and San Clemente. The Gabrielino subsisted on a variety of resources in several ecological zones. Lithic tools such as arrow points and modified flakes were used to hunt and process animals. A variety of ground stone grinding implements, such as the mortar, pestle, mano, and metate, were used to prepare food.

The settlement patterns of the Gabrielino, and other nearby groups such as the Juaneño and Luiseño, were similar and they

often interacted through marriage, trade, and warfare. The seasonal availability of water and plant and animal resources dictated seasonal migration rounds with more permanent villages and base camps being occupied primarily during winter and spring months. In the summer months, the village populations divided into smaller units that occupied seasonal food procurement areas. The more permanent settlements tended to be near major waterways and food sources and various secular and sacred activities, such as food production and storage and tool manufacturing, were conducted at these areas.

European contact with the Gabrielino that inhabited the City and surrounding region began in 1542 when Spanish explorer, Juan Rodriguez Cabrillo, arrived by sea during his navigation of the California coast. More explorers followed, including Sebastian Vizcaino in 1602, and Gaspar de



Portola in 1769. In 1771, Mission San Gabriel was established and it slowly integrated Gabrielinos from the surrounding region. By 1833, the California missions had been secularized and most Gabrielinos became laborers for the gentry class.

The City of Diamond Bar

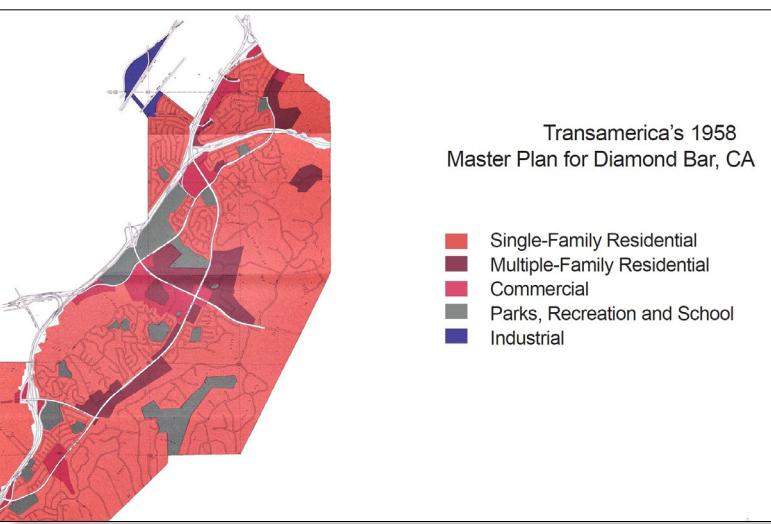
In 1840, the governor Juan Alvarado deeded 4,340 acres, including parts of Diamond Bar, to Jose de la Luz Linares. Linares established Rancho Los Nogales, or "Ranch of the Walnut Tree," with this Mexican land grant. After he died, Linares' widow sold a choice portion of the ranch to Ricardo Vejar.

Starting in 1864, the land that encompassed the original Rancho Los Nogales changed ownership several times. One such owner was Louis Phillips, a young livestock owner who subdivided portions of the ranch for sale. Frederick E. Lewis II purchased 7,800 acres of the original ranch in 1918 and soon thereafter formed the Diamond Bar Ranch and registered the

"diamond over a bar" branding iron with the California Department of Agriculture. This would later become the symbol for which the City of Diamond Bar was named.

In 1943, Lewis sold the Ranch to the Bartholomae family, who continued to maintain it as a successful cattle ranch for the next 13 years. William A. Bartholomae was president of the family oil company and in 1956 sought to make a more lucrative use of the land. At that time the Ranch looked much as it did in 1840, with grassy rolling hills supporting large herds of cattle, as well as abundant walnut tree orchards and scattered oak trees. The Christiana Oil Corporation and the Capital Oil Company, a subsidiary of the Transamerica Corporation, purchased 8,000 acres of Brea Canyon for \$10,000,000, which encompassed the Ranch and the Ranch Headquarters Compound. Their plan was to develop a master-planned community that would eventually become home to more than 50,000 people.

A master plan was adopted in 1958 and work began immediately on utilities and infrastructure. The plan included a central business district, two shopping districts, and parks including an 18-hole golf course. Education was also considered a very important aspect of the plan. The first model homes were built in 1960 in the north end of the City and the development continues to exist to this day. The City of Diamond Bar incorporated in 1989, becoming Los Angeles County's 86th city.



CULTURAL RESOURCES

Cultural resources include sites, buildings, structures, or objects that may have archaeological, historical, cultural, or scientific significance. Cultural resources include historic resources, archaeological resources, tribal cultural resources, and paleontological resources. All of these cultural resources provide a link to the people and the cultures of the past and can enrich Diamond Bar's sense of heritage and identity.

Historic Resources

A historic resource is a building, structure, object, prehistoric or historic archaeological site, or district possessing physical evidence of human activities over 45 years old. Historic resources are often designated and listed on the national, State, or a local register, making them eligible for certain protections or other benefits. The National Register of Historic Places (NRHP) is the nation's official list of historic places. The register is overseen by the National Park Service and requires that a resource eligible for listing on the register meet one of several criteria at the national, State, or local level, and also retain sufficient physical integrity of those features necessary to convey historic significance.

The California Office of Historic Preservation (OHP) offers four different registration programs, including the California Historical Landmarks, California Points of Historical Interest, California Register of Historical Resources (CRHR), and the NRHP. Each registration program is unique in the benefits

offered and procedures required. If a resource meets the criteria for registration, it may be nominated by any individual, group, or local government to any program at any time. Resources do not need to be locally designated before being nominated to a State program nor do they need to be registered at the State level before being nominated to the National Register. The California Register includes buildings, sites, structures, objects, and districts significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California. Resources listed in the National Register are automatically listed in the CRHR.

As of 2019, there are no registered historic resources in the City of Diamond Bar. Two built environment resources have previously been identified in the City, including a small segment of the Union/Southern



Pacific Railroad and a ground water tank/reservoir. The railroad segment was originally recommended eligible for the NRHP in 1999, but in 2009 was recommended ineligible at the local, State, and national levels due to loss of integrity. The water tank/reservoir has been found to be ineligible for the NRHP but has not been evaluated at the State or local levels. These resources are described in Table 5-4.

Archaeological Resources

The National Parks Service defines archaeological resources as any material remains of human life or activities that are at least 100 years of age and are capable of providing scientific or humanistic understandings of past human behavior, cultural adaptation, and related topics. As of 2019, seven archaeological resources have been recorded within City limits, including five prehistoric archaeological sites, one prehistoric isolate, and one historic archaeological site. An additional four resources were found within a half-mile radius of the City, including a prehistoric archaeological site, two historic isolates, and one prehistoric isolate. Archaeological resources are described in Table 5-4.

Tribal Cultural Resources

A tribal cultural resource is a site, feature, place, cultural landscape, sacred place, or object with cultural value to a tribe that is included or determined to be eligible for inclusion in the California Register of Historic Resources, included in a local register of historical resources, or otherwise determined to be

significant by the lead agency of an environmental review process. A search of the Native American Heritage Commission (NAHC) Sacred Lands File was positive for the Planning Area. Additionally, the long heritage of Native American tribes in the region suggests that the presence of tribal cultural resources is a possibility that future development will need to consider. The identification of tribal cultural resources can be supported by the NAHC's records but can only be fully determined through consultation with local Native American tribes. Thus, maintaining good communication with local tribes will be critical to ensuring that resources are respectfully preserved.



Table 5-4: Previously Recorded Cultural Resources

Permanent No. (P19-) or Trinomial (CA-LAN-)	Description	Date Recorded	Eligibility for NRHP
City of Diamond Bar			
19-189748	Built-environment resource consisting of a ground water tank/reservoir	2010	Not eligible
19-186112	Built-environment resource consists of a segment of the Union/Southern Pacific Railroad.	1999	N/A
19-002805	Prehistoric archaeological site consists of milling tools, discoidals, stone balls, choppers, hammerstones, and cores.	2000	N/A
CA-LAN-1704	Prehistoric archaeological site consists of surface scatter containing a chopper, mano fragment, metate fragment and a possible hammerstone.	1980	N/A
CA-LAN-852	Prehistoric archaeological site consisting of two cores and one flake	1976	N/A
CA-LAN-853	Prehistoric archaeological site consisting of chert cores and chert flakes	1976	N/A
19-101010	Prehistoric isolate consisting of a mano	2013	Not eligible
CA-LAN-3771	Historic archaeological site/ landscape component consisting of more than 15 eucalyptus trees and a concrete debris concentration associated with the historic Diamond Bar Ranch Headquarters	2008	Not eligible
CA-LAN-854	Prehistoric archaeological site consisting of a small lithic scatter	1976	N/A
N-CAN-33	Sacred Kizh oak woodland area	2017	Unevaluated
Within a Half-Mile of the City			
CA-LAN-1414	Prehistoric archaeological site consisting of several artifacts (flake, granitic facial mano and granitic pestle fragment) found in the escarpment of an embankment	1988	N/A
19-100794	Historic isolate consisting of five pieces of white earthenware flatware.	2010	Not eligible
19-100795	Historic isolate consisting of seven pieces of white earthenware flatware.	2010	Not eligible
19-101223	Prehistoric isolate which consists of a schist, basin metate fragment	2000	Not eligible

Source: SCCIC, 2016; NAHC SLF, 2019.