Appendix B Draft Biological Resources Technical Report



Draft

FIRESTONE BOULEVARD WIDENING PROJECT, CITY OF NORWALK, LOS ANGELES COUNTY, CA

Biological Resource Assessment Report

Prepared for City of Norwalk 12700 Norwalk Blvd. Norwalk, CA 90605 August 2019





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FIRESTONE BOULEVARD WIDENING PROJECT

Biological Resource Assessment

Introduction

This report documents the findings of a biological resource assessment for special-status plant and wildlife species and vegetation communities for the City of Norwalk's Firestone Boulevard Widening Project (Project). The purpose of this assessment is to provide an analysis in support of the CEQA document.

A description of the Project, methods used during the assessment, survey results, and recommendations for avoiding and minimizing impacts to biological resources during construction and operation of the Project are described below.

Project Description

The city of Norwalk (City) has identified the need to widen Firestone Boulevard between Hoxie Avenue/NB I-605 Freeway Ramps to the west and Imperial Highway to the east (**Figure 1**). The Firestone Boulevard Widening project would be located partially within the State's Right-of-way at the western limits with most of the project located within the city of Norwalk.

The existing Firestone Boulevard serves as a vital corridor to move goods and people, supporting the Norwalk economy. It provides a necessary link between the I-5 Freeway and the I-605 Freeway. Currently, this segment of Firestone Boulevard consists of 4-lanes of traffic (2 in each direction) and a landscaped raised median, in an urbanized area of the City with businesses on both sides of the road.

Previously the cities of Norwalk and Downey, under a joint agreement, widened Firestone Boulevard to the west from the city of Downey limits to the I-605 Freeway ramps. LA Metro and Gateway Cities COG are currently planning the improvements to the I-605 Freeway/Firestone Boulevard interchange. This project has been identified as an early action project of the larger I-605 Freeway Improvements project.

The Firestone Boulevard Widening project would upgrade the existing section to be consistent with the wider section to the west and the planned 6-lane cross section under the I-605 freeway (**Figure 2**). This project widens the roadway east of the I-605 freeway for three (3) lanes in each direction including at an existing overpass of the Union Pacific Railroad (UPRR) line. The project will also provide multi-modal improvements with the installation of on-street (class II and

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class III) bicycle facilities. Other improvements that are part of the Firestone Boulevard Widening project include, but are not limited to, a bridge widening over a UPRR active line, traffic signal improvements, retaining walls, pavement reconstruction, landscape and irrigation improvements, and pedestrian (ADA) improvements.

The project is anticipated to be constructed within existing City Right-of-way, except the westerly 200 feet of the Project's limits, which are located within the State's Right-of-Way.

Methods

Biological Resource Assessment

A biological resource assessment was conducted by Environmental Science Associates (ESA) biologist Ryan Villanueva on August 7, 2019 between the hours of 6:00 a.m. and 9:00 a.m. Temperatures during the assessment ranged between 69° and 75° Fahrenheit with winds ranging between 0 to 3 miles per hour (mph), with cloudy skies. The "study area" included the Project site and a 500-foot buffer in all directions. The assessment involved characterizing and mapping the vegetation communities and existing land uses that occur in the vicinity where the proposed Project could affect them (**Figure 3**) and noting the dominant species comprising the existing communities.

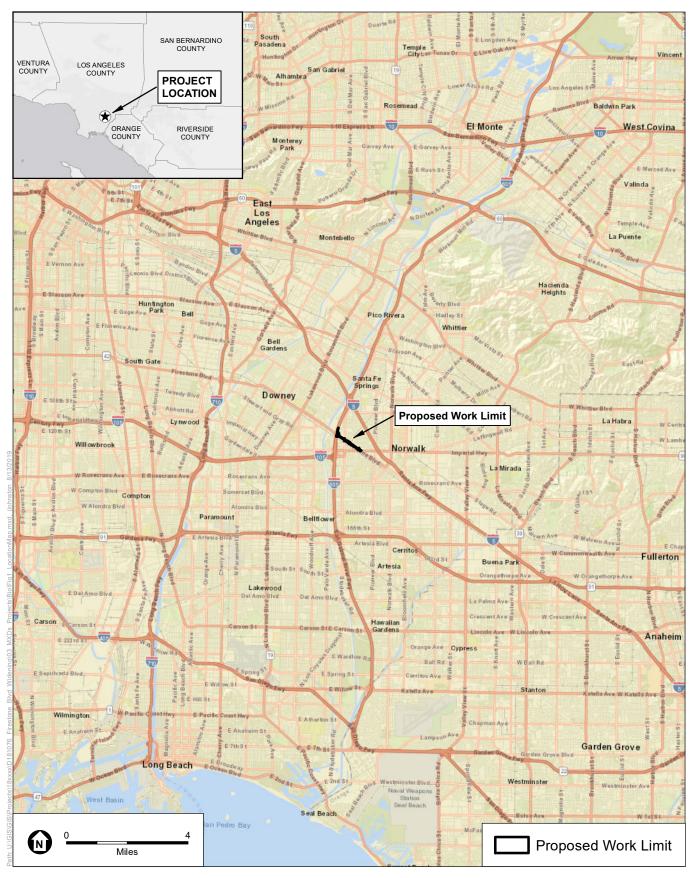
Plants were identified in the field and taxonomy followed Baldwin, et al. (2012). Representative photographs taken during the assessment are included in **Appendix A**.

The majority of the study area was assessed; however, a substantial amount of the study area is located within private property and therefore could not be directly accessed. Such areas with limited access were visually assessed from the nearest vantage point using binoculars. The entirety of the accessible areas of the study area were walked or driven to verify the current condition of the vegetation communities, including to identify any California Department of Fish and Wildlife (CDFW) sensitive natural communities¹, and to assess whether habitat could be suitable to support special-status species². Direct observations of wildlife or evidence of presence were noted.

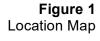
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CDFW sensitive natural communities include those communities given a State rank of S1-S3 (CDFW 2019b).

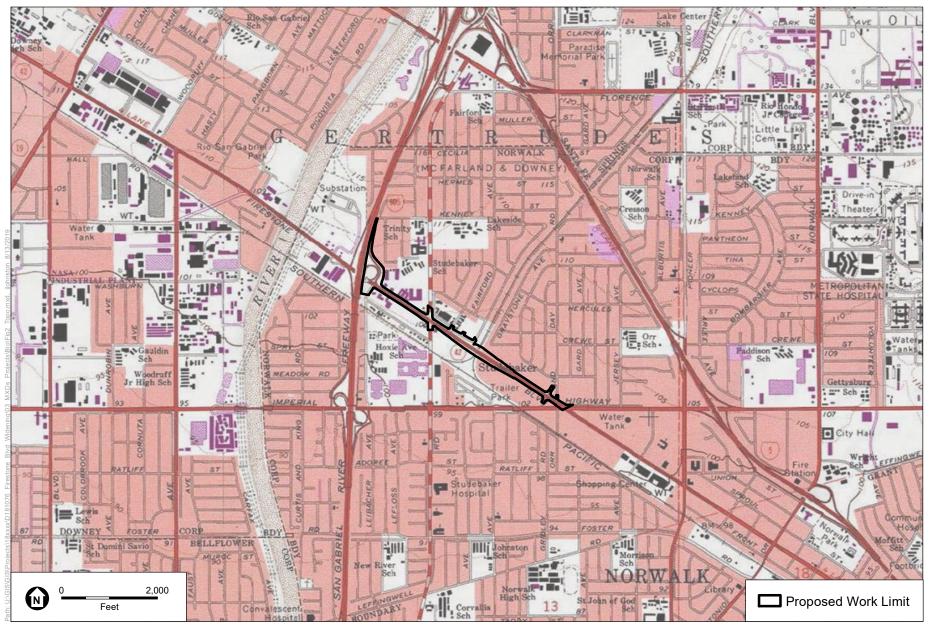
Special-status species include those listed as endangered, threatened, or candidate by the CESA or FESA. This also includes species with a California Rare Plant Rank (CRPR) of 1A, 1B, 2A, or 2B; California Fully Protected Species; Watch List Species and CDFW Species of Special Concern.



SOURCE: ESRI Firestone Blvd Widening Project





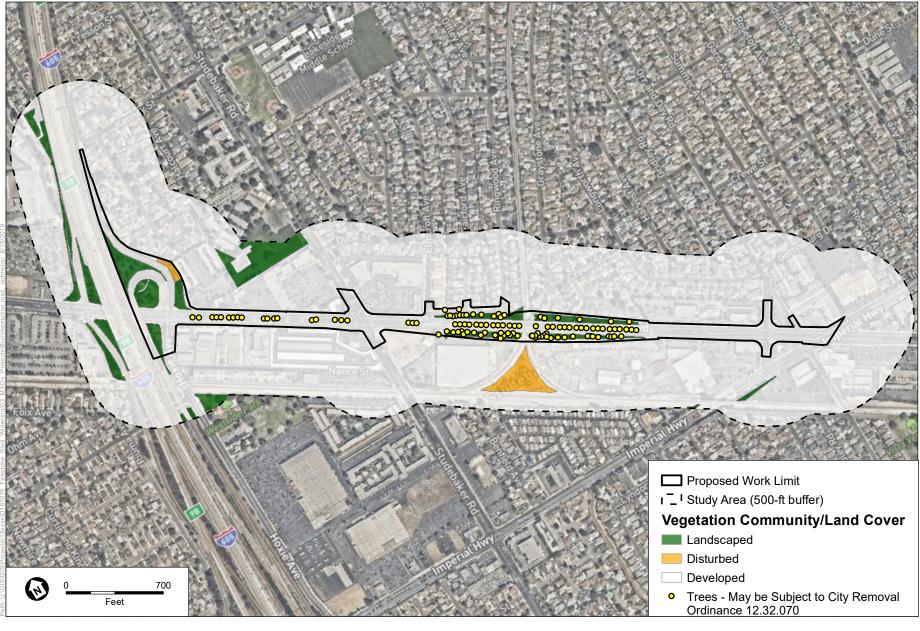


SOURCE: USGS 7.5' Topo Quad Whittier 1977

Firestone Blvd Widening Project

Figure 2 USGS Topographic Map





SOURCE: Mapbox 2018

Firestone Blvd Widening Project

Figure 3 Vegetation Community/Land Cover



Literature and Database Review

Prior to conducting the site assessment, database searches of the CDFW California Natural Diversity Data Base (CNDDB) (CDFW 2019a), United States Fish and Wildlife's (USFWS) Critical Habitat Mapper (USFWS 2019a) and the California Native Plant Society (CNPS) Rare Plant Inventory (CNPS 2019) were conducted to query special-status biological resources that have been recorded in the region. The results of the database searches were used to develop a list of species that could potentially occur in the study area. The query included the Whittier United States Geological Survey (USGS) Quadrangle 7.5-minute map for which the study area is located, as well as the surrounding eight USGS quadrangles: Los Angeles, El Monte, Baldwin Park, South Gate, La Habra, Long Beach, Los Alamitos and Anaheim. This area encompasses a region extending more than five miles away from the proposed project in every direction. In addition, the USFWS National Wetland Inventory (NWI) was accessed and reviewed to determine if NWI mapped waters or wetlands were present in the study area (USFWS 2019b).

Regulatory Framework

The following section provides a general description of the applicable regulatory requirements for the Project, including federal, State, and local policies and guidelines. Regulatory statutes and requirements that area not applicable to the project because the project area lacks the particular regulated resources (e.g., State or federally listed species, State Fully Protected Species, protected native plants) include:

- Endangered Species Act (USC, Title 16, § 1531 through 1543)
- California Endangered Species Act (California Fish and Game Code § 2050 et seq.)
- California Fully Protected Species
- Native Plant Protection Act (California Fish and Game Code §§ 1900 through 1913)

Federal

Migratory Bird Treaty Act (16 USC 703 through 711)

The Migratory Bird Treaty Act (MBTA) is the domestic law that affirms, or implements, a commitment by the U.S. to four international conventions (with Canada, Mexico, Japan, and Russia) for the protection of a shared migratory bird resource. The MBTA protects migratory birds, including migratory bird nests, eggs, and chicks. Within the U.S., the MBTA also provides protection to native non-migratory species. The prohibitions of the MBTA include possession, transport, import, export, purchase, sale, barter, and take. The regulatory definition of take (50 C.F.R. § 10.12) means to pursue, shoot, wound, kill, trap, capture, or collect, or attempt thereof. The MBTA makes it unlawful to pursue, hunt, take, capture, or kill migratory and native birds or to remove occupied nests during the breeding season.

Federal Clean Water Act (33 USC 1251 through 1376)

The Clean Water Act (CWA) provides guidance for the protection and maintenance of the chemical, physical, and biological integrity of the nation's waters. Section 401 requires a federal license or permit that allows activities resulting in a discharge to waters of the United States to obtain water quality certification from the State, thereby ensuring that the discharge will comply with provisions of the CWA. The California State Water Resources Control Board (SWRCB) through its Regional Water Quality Control Boards (RWQCBs) administers the water quality certification program in California. Section 402 establishes a permitting system for the discharge of any pollutant (except dredged or fill material) into waters of the United States. Section 404 establishes a permit program administered by the U.S. Army Corps of Engineers (USACE) that regulates the discharge of dredged or fill material into waters of the United States, including wetlands. USACE implementing regulations are found at 33 CFR 320 and 330.

Wetlands and Other Waters of the United States

Aquatic resources, including riparian areas, wetlands, and certain aquatic vegetation communities, are considered sensitive biological resources and can fall under the jurisdiction of several regulatory agencies. USACE exerts jurisdiction over waters of the United States, including all waters that are subject to the ebb and flow of the tide; wetlands and other waters such as lakes, rivers, streams (including intermittent or ephemeral streams), mudflats, sandflats, sloughs, prairie potholes, vernal pools, wet meadows, playa lakes, or natural ponds; and tributaries of the above features. USACE can also exert jurisdiction over ditches under certain circumstances such as those that are tributary to a traditional navigable water (TNW) or that replace a natural feature. The extent of waters of the United States is generally defined as that portion that falls within the limits of the OHWM. Typically, the OHWM corresponds to the two-year flood event.

Wetlands, including swamps, bogs, seasonal wetlands, seeps, marshes, and similar areas, are defined by USACE 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" (33 CFR 328.3[b]; 40 CFR 230.3[t]). Indicators of three wetland parameters (i.e., hydric soils, hydrophytic vegetation, and wetlands hydrology), as determined by field investigation, must be present for a site to be classified as a wetland by USACE (Environmental Laboratory 1987).

State

California State Fish and Game Code § 1602

Under these sections of the California Fish and Game Code, the project operator is required to notify CDFW prior to any project that would divert, obstruct, or change the natural flow, bed, channel, or bank of any river, stream, or lake. Pursuant to the code, a "stream" is defined as a body of water that flows at least periodically, or intermittently, through a bed or channel having banks and supporting fish or other aquatic life. Based on this definition, a watercourse with surface or subsurface flows that supports or has supported riparian vegetation is a stream and is subject to CDFW jurisdiction. Altered or artificial watercourses, which may include ditches, that

are valuable to fish and wildlife are subject to CDFW jurisdiction. CDFW also has jurisdiction over dry washes that carry water during storm events.

Preliminary notification and project review generally occur during the environmental process. When an existing fish or wildlife resource may be substantially adversely affected, CDFW is required to propose reasonable project changes to protect the resource. These modifications are formalized in a Streambed Alteration Agreement, which becomes part of the plans, specifications, and bid documents for the project.

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

Section 3503 of the California Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 specifically states that it is unlawful to take, possess, or destroy any raptors (i.e., species of birds of prey in the orders Falconiformes and Strigiformes), including their nests or eggs. Typical violations of these codes include destruction of active nests resulting from removal of vegetation in which the nests are located. Violation of Section 3503.5 could also include failure of active raptor nests resulting from disturbance of nesting pairs by nearby project construction. This statute does not provide for the issuance of any type of incidental take permit.

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

California Environmental Quality Act Guidelines, § 15380

Although threatened and endangered species are protected by specific federal and State statutes, CEQA Guidelines § 15380(b) recognizes that a species not listed on the federal or State list of protected species may be considered rare or endangered if the species can be shown to meet certain specified criteria. These criteria have been modeled after the definition in FESA and the section of the California Fish and Game Code dealing with rare or endangered plants or animals. This section was included in CEQA primarily to deal with situations in which a public agency is reviewing a project that may have a significant effect on, for example, a candidate species that has not been listed by either USFWS or CDFW. Thus, CEQA provides an agency with the ability to protect a species from the potential impacts of a project until the respective government agencies have an opportunity to designate the species as protected, if warranted. CEQA also calls for the protection of other locally or regionally significant resources, including natural communities. Although natural communities do not at present have legal protection of any kind, CEQA calls for an assessment of whether any such resources would be affected, and requires findings of significance if there would be substantial losses. Natural communities listed by CNDDB as sensitive are considered by CDFW to be significant resources and fall under the CEQA Guidelines for addressing impacts. Local planning documents such as general plans often identify these resources as well.

Section 401 Clean Water Act

Under Section 401 of the CWA, the local RWQCB, Santa Ana RWQCB, has the authority to certify that actions permitted under Section 404 of the CWA also meet State water quality standards. Typically, the RWQCB requires projects to avoid impacts to wetlands if feasible and adhere to the State policy prohibiting a net loss of wetland acreage or a net loss of wetland function and values. Compensatory mitigation for impacts to wetlands and/or waters of the State is also required by the RWQCB.

Porter-Cologne Water Quality Control Act

Section 13260(a) of the California Water Code requires that any discharge of waste, other than to a community sewer system, which could affect the quality of the waters of the State, file a report of waste discharge (WDR). The discharge of dredged or fill material (e.g., due to construction impacts) may constitute a discharge of waste that could affect the quality of waters of the State (Defined in Water Code §13050(e)) and prospective dischargers are required obtain authorization through an Order of Waste Discharge or waiver thereof from the appropriate RWQCB and to comply with other requirements of Porter-Cologne Act.

Regional

Protective Tree Ordinances

The City of Norwalk has established a tree removal policy and established municipal ordinance 12.32.070, provided below, which protects street trees and shrubs within the city limits. The ordinance does not list any particular species or size classes of trees as being protected. Thus, all varieties of trees, shrubs and other ornamental or woody vegetation are included. As indicated below, a tree removal permit must be obtained from the City of Norwalk Public Services Department prior to the trimming or removal of a street tree or shrub.

• Ordinance 12.32.070: No person shall cut, trim, prune, plant, spray, remove, injure or interfere with any street tree or shrub without prior permission of the Director of Public Services. The Director may grant such permission in his or her discretion, and where necessary, subject to the condition that a removed tree or shrub will be replaced by an approved tree or shrub in conformity with the master plan, and to such other conditions as he or she may deem in the public interest. No such permit shall be valid for a longer period than thirty (30) days after its date of issuance.

Existing Conditions

Land Cover and Vegetation Communities

As shown in Figure 3, the study area is primarily comprised of developed areas and disturbed areas that are mostly devoid of vegetation. There are no natural communities in the study area either composed of native or non-native vegetation, except for some vacant areas that exhibit only a sparse cover of ruderal (weedy) vegetation. These weedy areas are categorized as "disturbed". There are several patches and strips of artificially maintained landscaped areas within the study

area that may provide nesting opportunities for various avian species. A full list of plant species observed within the study area is included as **Appendix B**.

Landscaped Areas

Landscaped areas are characterized by a mix of planted trees and shrubs along with some type of ground cover such as iceplant (*Carpobrotus edulis*) or contains either bare ground or mulch. Trees observed within landscaped areas were predominately non-native and included red gum (*Eucalyptus camaldulensis*), Canary Island pine (*Pinus canariensis*) and Mexican fan palm (*Washingtonia robusta*). California sycamore (*Platanus racemosa*) is the only native tree species in the study area. There are a number of very small patch areas containing planted trees and shrubs including individual isolated street trees and planted areas associated with residences in the study area. The larger patches are designated as "landscaped" and are shown on as such on Figure 3. These larger landscaped areas may provide a high potential for nesting birds to occur since they offer more cover and the density of vegetation is greater.

Disturbed

Disturbed areas are characterized by evidence of recent disturbance, such as compacted soils and/or lack of vegetation. Disturbed areas are typically unpaved areas adjacent to roadways or railroad tracks that may be maintained, treated, mowed, or disked to remove vegetation. Few plant species were observed within these areas and included Canada horseweed (*Erigeron canadensis*) and Russian thistle (*Salsola tragus*).

Developed

Developed areas include areas that have been constructed upon or otherwise physically altered to an extent that native vegetation is completely displaced. Developed areas include residential commercial, and industrial areas and include major roads such as Firestone Boulevard, Interstate 605 (I-605) as well as a number of smaller roads such as Elmcroft Avenue. Residential and commercial areas line the north side of Firestone Boulevard with commercial and industrial areas lining the south side. Developed areas lack habitat value for most native wildlife species with the exception of a few resident and migratory birds that are accustomed to nesting in developed areas.

Wildlife

Common birds observed during the assessment included Anna's hummingbird (*Calypte anna*), rock pigeon (*Columba livia*), American crow (*Corvus brachyrhynchos*), northern mockingbird (*Mimus polyglottos*), house sparrow (*Passer domesticus*), European starling (*Sturnus vulgaris*) and mourning dove (*Zenaida macroura*). Notably, house sparrow and European starling, which are not native to North America, are not protected under the MBTA. Other wildlife species observed included the eastern fox squirrel (*Sciurus niger*). Special-status wildlife species are discussed below.

Special-Status Biological Resources

The CNDDB and CNPS database queries noted a total of 38 special-status plant species, 43 special-status wildlife species, and 4 sensitive natural communities within the nine quadrangle search area (i.e., within a radius of at least five miles). However, only four special-status wildlife species were identified, including one not noted in the CNDDB, that may have any potential to occur in the study area. Each of these species can occasionally utilize landscaped areas in urban or disturbed environments. The rest of the special-status species identified in the literature and database searches, including all special-status plant species, are eliminated from further consideration or discussion because the study area's existing developed condition and surrounding urbanization makes the area completely unsuitable for them. Sensitive natural communities are also not discussed because it was confirmed that none are present within the study area. The results of the database searches are provided in **Appendix C**.

There are no areas designated as "Critical Habitat" for federally listed species closer than approximately 6 miles to the east of the study area. Wildlife movement corridors are also confirmed to be absent from the study area as it is fully urbanized and is surrounded by developed lands. There are no areas covered by local habitat conservation plans (HCPs) or natural community conservation plans (NCCPs) in or overlapping the study area.

Special-Status Plants and Wildlife

The few special-status wildlife species that may have at least a low potential to occur within the study area are listed in **Table 1** below. Table 1 identifies the protective status of these species and indicates their preferred habitat requirements and the likelihood that they could occur considering the quality of habitat within the study area.

The "Potential for Occurrence" categories indicated in Table 1 are defined as follows:

- Low Potential: The Project area and/or immediate vicinity provides low-quality habitat for a particular species, such as improper substrate, disturbed or otherwise degraded habitat, or improper assemblage of desired vegetation, and/or the site is outside of the known range of the species.
- Moderate Potential: Species identified in the literature search and/or known to occur in the region and suitable habitat is present within the project site or study area. These species are generally less common and/or widespread than species considered to have "high" potential to occur.
- High Potential: The Project area and/or immediate vicinity provides high-quality or ideal habitat (i.e., soils, vegetation assemblage, and topography) for a particular species and/or there are known occurrences in the general vicinity of the Project area. Species identified in the literature search and/or known to occur in the region and high quality or ideally suitable habitat is present on the project site or in the study area. These species are generally common and/or widespread in the project area and vicinity and there are known occurrences in the general vicinity.

TABLE 1
SENSITIVE WILDLIFE SPECIES WITH POTENTIAL TO OCCUR IN THE STUDY AREA

Common Name	Scientific Name	Status (Federal/State/Other) ¹	Habitat	Potential to Occur at Study Area
Mammals			·	
Western mastiff bat	Eumops perotis californicus	None/SSC/None	Chaparral, Cismontane woodland, coastal scrub, valley and foothill grassland. Roosts in crevices in cliff faces, high buildings, trees and tunnels.	Low (transient only). The study area lacks suitable foraging habitat. The study area contains trees and buildings suitable for roosting.
western red bat	Lasiurus blossevillii	None/SSC/None	Broadly distributed through western States and B.C. mainly in well- developed riparian habitats. Roosts in foliage of trees or shrubs. Day roosts are commonly in edge habitats adjacent to streams or open fields, in orchards, and sometimes in urban areas	Low. The study area contains only landscape trees and shrubs but lacks any natural riparian habitat.
hoary bat	Lasiurus cinereus	None/None/None	Prefers open mixed habitats, with access to trees for cover & open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths. Requires water.	Low (transient only). The study area lacks significant areas of suitable foraging habitat. The study area contains trees suitable for roosting.
Birds				
Cooper's hawk	Accipiter cooperii	None/SSC/None	Woodland, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river floodplains; also, live oaks.	Low. The study area provides suitable foraging habitat and contains trees suitable for nesting although the species is not likely to nest in the study are due to amount of human activity.

Federal/State/Other Status: FE – Federally Endangered; FT – Federally Threatened; FC – Federal Candidate; SE – State Endangered; ST – State Threatened, SSC – State Special Status Species, SWL – State Watch List, FP – State Fully Protected;

Results

Special-Status Wildlife Species

Landscaped areas and even urban developed land in the study area may provide marginally suitable habitat for a handful of the species listed in Table 1, which includes several bat species and Cooper's hawk. The study area lacks any suitable habitat or appropriate conditions to support any of the other special-status wildlife species reported in the literature and databases within the region. Existing trees and buildings may provide limited roosting opportunities for western mastiff bat, western red bat, and hoary bat. However, there is a reasonable argument that these bat species may not be expected to occur due to the distance from natural areas and the high level of human activity, noise, and nighttime lighting in the area. Nevertheless, it may not be possible to state that these bat species could not potentially occur so it is assumed that they may have at least a low potential to occur, at least as transients if not long-term residents. Cooper's hawk is known to forage in residential areas and suitable nest trees are present within the study area. However, Cooper's hawk is not likely to nest in the study area due to the level of human activity and disturbance. Two of the species noted in the databases, Coulter's goldfields (Lasthenia glabrata ssp. coulteri) and bank swallow (Riparia riparia), have a CNDDB record that may overlap the study area but both species are noted as extirpated or possibly extirpated. Neither of these species was observed during the survey and the lack of any suitable habitat in the study area and so both are considered absent from the project area.

The construction and operation of the Project will not result in any long term adverse effects on special-status wildlife species that occur in the region.

Nesting Birds

The habitat within the study area generally does not provide suitable nesting habitat due to the dominance of developed and disturbed areas. Nonetheless, ornamental shrubs and trees planted as part of existing landscaping, such as pine trees (*Pinus* spp.) and eucalyptus trees (*Eucalyptus* spp.), have the potential to provide nesting and foraging habitat for a variety of common bird species. In addition, holes within the bridges associated with I-605 provide suitable nesting cavities for smaller birds. Construction and operation of the Project may affect nesting birds as suitable nesting habitat occurs for tree, shrub and cavity-nesting birds within the study area.

Jurisdictional Waters

A review of available map data and the site survey noted several small storm drain channel segments within the study area that convey surface flows. Although they contain no vegetation, and are artificially maintained, these sections of aboveground "ditches" are still considered jurisdictional "waters" and are therefore, subject to State and federal regulatory authority. The drainage features in the study area include four short above ground sections of a flood control channel on the south side of Firestone Blvd., most of which flows in an underground pipe or culvert. Two other features were noted north of Firestone Blvd., adjacent to the east side of the 605 Freeway, with two other, longer channel segments also noted on the west side of the Freeway but which are too far removed from the proposed project improvements to be of interest. All

these drainage features are lined with either concrete, cobble or gravel, and all are depicted on Figure 4 - Potential Jurisdictional Waters Map

. These ditches vary in length and range from three to eight feet wide. All of the ditches either drain surface flows from the I-605 or local surface streets and flows are presumed to be conveyed to the San Gabriel River a short distance to the west of the project study area as shown on Figure 4. Riparian vegetation is absent from these channels, so none of them contain any wetlands or important biological resources. Not surprisingly, the National Wetlands Inventory does not identify any wetland features within the study area.

Although these short channel sections contain no wetlands, each of them conveys surface water flows to the San Gabriel River, and are thus part of the tributary system feeding into a major water of the U.S. As tributaries to the River, and by extension to the Pacific Ocean, these features are expected to be considered waters of the U.S., and waters of the State. Therefore, if the project may result in displacement or relocation of these features, and/or if the project may result in a discharge of fill material, or otherwise alter any of the channels segments, such impacts or alterations are expected to require a permit from the USACE under Section 404, and a water quality certification from the Los Angeles RWQCB under Section 401 and/or file a WDR as required under the Porter Cologne Water Quality Act. Finally, if the project would result in altering any of the earthen bottomed channel segments and the alteration may have the potential to adversely affect associated biological resources (e.g., as the result of the discharge affecting downstream areas) a Streambed Alteration Notification may also be required to be submitted to CDFW to initiate the process of obtaining a Streambed Alteration Agreement with that agency. If the proposed project will avoid any alteration or discharge to the existing aboveground channels segments, then the project would not be subject to such permit requirements.

Protected Trees

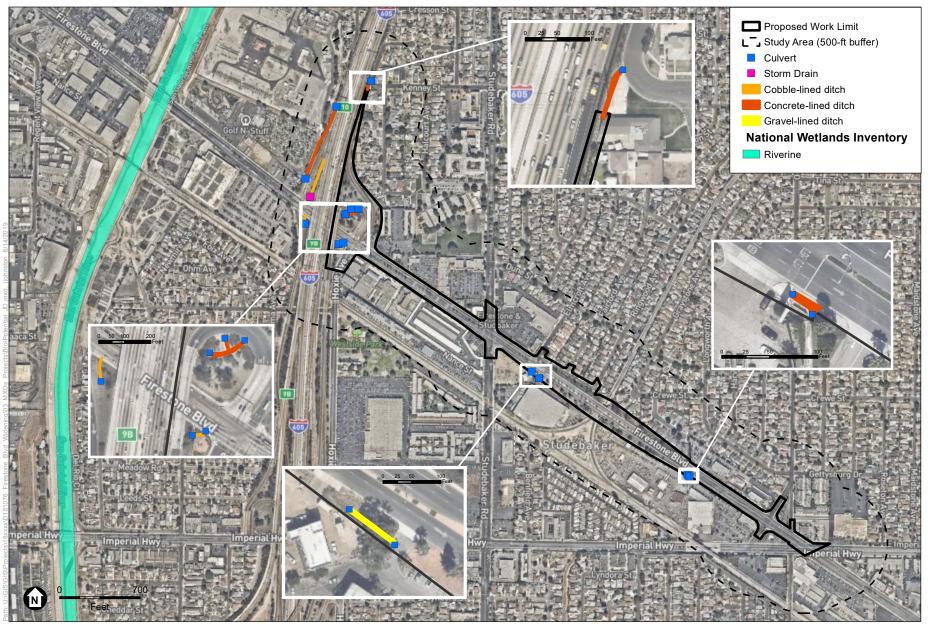
The proposed project is located within the City of Norwalk which has an ordinance requiring a permit for the removal of trees or shrubs within public parks, public grounds, public streets, and other public areas. Trees identified within the study area include pine trees, Mexican fan palm, eucalyptus species and several other tree species. The locations of trees with in the study area are depicted on **Figure 3**. Land owned by Caltrans or where Caltrans has an easement are exempt from City ordinances involving the protection of trees. If the proposed project may result in damage or removal of any street trees or shrubs that are not within Caltrans property or right-of-way, then any removals or damage will require a permit from the City of Norwalk Public Services Department.

Wildlife Movement Corridors

The study area is located within a fully urbanized area of the City of Norwalk that is surrounded by developed lands. There are no patches of undeveloped land in the area surrounding the study area. In addition, the study area is entirely away from any areas identified as conservation lands or part of any linkage design in the South Coast Missing Linkages report (South Coast Wildlands 2008). The high volume of vehicle traffic on the I-605 and various public roads within the study area is not conducive to wildlife movement in the study area. Therefore, wildlife movement pathways are absent in this area and the proposed project will not affect wildlife movement opportunities in any way.

Habitat Conservation Plan/Natural Community Conservation Plan Areas

The study area is located completely within the City of Norwalk and is not within or adjacent to any habitat conservation plan (HCP) or natural community conservation plan (NCCP) area or jurisdiction in this region. Therefore, the proposed project will not affect any HCP or NCCP.



SOURCE: Mapbox; USFWS Firestone Blvd Widening Project





Recommended Minimization and Avoidance Measures

The proposed road widening is limited to existing paved access road right-of-ways and landscaped areas. Therefore, the project is not anticipated to have substantial adverse effects on biological resources. However, if nesting birds or roosting bats are present within structures or landscape vegetation that may be affected by the proposed project, measures are recommended below to avoid such impacts to these avian species, if present, including any of several special-status bat species and Cooper's hawk.

Nesting Birds

To avoid potential impacts to nesting birds, it is recommended that vegetation (i.e., tree or shrub) removal be conducted between September 1 and January 31, outside the typical nesting season for birds in the region. If vegetation removal must occur during the typical nesting season (February 1 – August 31), it is recommended that a qualified biologist conduct a preconstruction survey for active nests within areas that will be subject to vegetation removal and/or ground disturbances, including an approximate 100-300-foot buffer around existing trees and landscaped areas, to identify any active nests. Buffer distances should be adjusted at the discretion of the biologist based on the location of the nest, species, and surrounding land uses. If no sign of nesting activity is observed, construction may proceed without potential impacts to nesting birds.

If an active nest is observed during the pre-construction clearance survey, an adequate buffer should be established around the active nest depending on sensitivity of the species and proximity to proposed project activity and impact areas. Onsite construction monitoring may also be required to ensure that no direct or indirect impacts occur to the active nest. Proposed project activities should be avoided within the buffer, unless otherwise approved by the monitoring biologist (e.g., vehicles could pass through buffer areas while jackhammering would be restricted). Buffers would be clearly marked and defined to restrict certain activities where they could result in nest failure, and would remain in place until nests are no longer active, as determined by the monitoring biologist.

Roosting Bats

It is recommended that construction activities occur outside of the maternity roosting season, which typically extends from April 1 through August 30, but can vary based on seasonal conditions. If construction activity must proceed during the maternity roosting season, a preconstruction roosting bat survey should be conducted by a qualified biologist within 3 days of vegetation removal and/or ground-disturbing activities in close proximity to trees. If an active roost is observed or detected, a qualified biologist should determine an appropriate buffer and clearly mark or define the area to restrict certain activities. If no active bat roosts are observed, construction activity would have no effect on roosting bats and no further measures are required.

Jurisdictional Waters

Potentially jurisdictional waters are present within the study area and may include waters of the U.S. and waters of the state. If these features may be impacted and are confirmed to be jurisdictional waters, the project will require permits under Sections 401 and 404 of the Clean Water Act and may need a Streambed Alteration Agreement in accordance with Section 1600 of the California Fish and Game Code. The required permits will need to be obtained prior to the start of project activities. Permit processing is often time consuming. Therefore, confirming jurisdictional status of features and identifying potential project impacts to any jurisdictional waters in the area should be performed as early as possible and applications submitted with as much lead time as possible prior to project implementation.

Protected Trees

The study area is located within the City of Norwalk which has an established ordinance to protect trees located in public areas. It is recommended to specifically determine where trimming or removal of public trees or shrubs will be required to be performed to complete the proposed project. As noted previously, except for trees on Caltrans property or within Caltrans right-of-way which are exempt from permit requirements, a tree removal permit will be required from the City of Norwalk Public Services Department prior to the start of activities for damage or removal of any public trees or shrubs.

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Appendix A Representative Site Photographs



Photograph 1 – Firestone Boulevard under the I-605 bridge, facing northwest.



Photograph 2 – Firestone Boulevard near the I-605 northbound onramp, facing northwest.



Photograph 3 – Firestone Boulevard near the I-605 northbound onramp, facing southeast.



Photograph 4 – Firestone Boulevard near Elmcraft Avenue, facing southeast.



Photograph 5 – Firestone Boulevard, facing southeast.



Photograph 6 – Firestone Boulevard, facing southeast.



Photograph 7 – Firestone Boulevard at Orr and Day Drive, facing southeast.



Photograph 8 – Concrete-lined drainage near the Firestone Boulevard I-605 northbound exit, facing north.



Photograph 9 – Firestone Boulevard under the I-605 bridge, bird droppings in holes.



Photograph 10 – Railroad tracks located to the south of Firestone Boulevard, facing southwest.

Appendix B Plant Compendium

Appendix B: Plant Species Compendium

Scientific Name

Common Name

EUDICOTS

Aizoaceae - Ice Plant family

* Carpobrotus edulis freeway iceplant

Anacardiaceae - Cashew family

* Schinus terebinthifolius Brazilian pepper tree

Apocynaceae - Dogbane family

* Nerium oleander oleander

Asteraceae - Sunflower family

Baccharis salicifolia mule fat

* Erigeron canadensis

* Helianthus annuus

* Sonchus asper subsp. asper

Canada horseweed
annual sunflower
prickly sow thistle

Bignoniaceae - Bigonia family

* Jacaranda mimosifolia black poui

Brassicaceae - Mustard family

* Hirschfeldia incana shortpod mustard

Chenopodiaceae - Goosefoot family

* Salsola tragus Russian thistle

Euphorbiaceae- Spurge family

* Ricinus communis castor bean

Fabaceae - Pea family

* Acacia longifolia golden wattle * Albizia julibrissin silktree

* Cassia leptophylla gold medallion tree * Parkinsonia aculeate Mexican palo verde

Geraneaceae – Geranium family

* Erodium cicutarium red-stemmed filaree

Hamamelidaceae – Witch-Hazel Family

* Liquidambar styraciflua sweetgum

Magnoliaceae - Magnolia Family

* Magnolia grandiflora southern magnolia

Malvaceae- Mallow Family

* Malva parviflora cheeseweed

Myrtaceae- Myrtle Family

* Callistemon citrinus crimson bottlebrush

* Eucalyptus camaldulensis red gum

* Eucalyptus polyanthemos silver dollar eucalyptus

* Eucalyptus sideroxylon red iron bark

Scientific Name	Common Name
Pinaceae – Pine Family	
* Pinus canariensis	Canary Island pine
Platanaceae – Plane Tree Family	
Platanus racemose	California sycamore
Rutaceae – Citrus Family	
* Geijera parviflora	Australian willow
Sapindaceae - Soapberry family	
* Cupaniopsis anacardioides	carrot wood tree
Solanaceae- Nightshade family	
* Datura wrightii	jimsonweed
* Nicotiana glauca	tree tobacco
* Solanum nigrum	black nightshade
Zygophyllaceae - Caltrop family	
Tribulus terrestris	puncture vine
MONOCOTS	
Arecaceae - Palm family	
* Syagrus romanzoffiana	queen palm
* Washingtonia robusta	Mexican fan palm
Poaceae - Grass family	
* Avena barbata	wild oat
* Bromus diandrus	ripgut grass
* Cortaderia selloana	pampas grass
* Cynodon dactylon	Bermuda grass
* Pennisetum setaceum	fountaingrass
Strelitziaceae – Bird of Paradise family	-
* Strelitzia reginae	bird of paradise

Legend

^{* =} Non-native or invasive species

Appendix C CNDDB and CNPS Database Search Results



California Department of Fish and Wildlife California Natural Diversity Database



Query Criteria:

Quad IS (Los Angeles (3411812) OR El Monte (3411811) OR Baldwin Park (3411718) OR La Habra (3311788) OR Whittier (3311881) OR South Gate (3311882) OR Long Beach (3311872) OR Long Canal Style='color:Red'> OR Anaheim (3311778))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Abronia villosa var. aurita	PDNYC010P1	None	None	G5T2?	S2	1B.1
chaparral sand-verbena	. 2 33.6.	. 10.10		00.2.	02	
Accipiter cooperii	ABNKC12040	None	None	G5	S4	WL
Cooper's hawk						
Agelaius tricolor	ABPBXB0020	None	Threatened	G2G3	S1S2	SSC
tricolored blackbird						
Aimophila ruficeps canescens southern California rufous-crowned sparrow	ABPBX91091	None	None	G5T3	\$3	WL
Ammodramus savannarum	ABPBXA0020	None	None	G5	S3	SSC
grasshopper sparrow						
Anniella stebbinsi	ARACC01060	None	None	G3	S3	SSC
southern California legless lizard						
Antrozous pallidus	AMACC10010	None	None	G5	S3	SSC
pallid bat						
Arizona elegans occidentalis	ARADB01017	None	None	G5T2	S2	SSC
California glossy snake						
Aspidoscelis tigris stejnegeri coastal whiptail	ARACJ02143	None	None	G5T5	S3	SSC
Athene cunicularia	ABNSB10010	None	None	G4	S3	SSC
burrowing owl						
Atriplex coulteri	PDCHE040E0	None	None	G3	S1S2	1B.2
Coulter's saltbush						
Atriplex parishii	PDCHE041D0	None	None	G1G2	S1	1B.1
Parish's brittlescale						
Atriplex serenana var. davidsonii Davidson's saltscale	PDCHE041T1	None	None	G5T1	S1	1B.2
Bombus crotchii	IIHYM24480	None	None	G3G4	S1S2	
Crotch bumble bee						
Buteo regalis	ABNKC19120	None	None	G4	S3S4	WL
ferruginous hawk						
Buteo swainsoni	ABNKC19070	None	Threatened	G5	S3	
Swainson's hawk						
California Walnut Woodland	CTT71210CA	None	None	G2	S2.1	
California Walnut Woodland						
Calochortus plummerae	PMLIL0D150	None	None	G4	S4	4.2
Plummer's mariposa-lily						
Calochortus weedii var. intermedius	PMLIL0D1J1	None	None	G3G4T2	S2	1B.2
intermediate mariposa-lily						



California Department of Fish and Wildlife California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Calystegia felix	PDCON040P0	None	None	G1Q	S1	1B.1
lucky morning-glory						
Campylorhynchus brunneicapillus sandiegensis	ABPBG02095	None	None	G5T3Q	S3	SSC
coastal cactus wren						
Centromadia parryi ssp. australis	PDAST4R0P4	None	None	G3T2	S2	1B.1
southern tarplant						
Chelonia mydas	ARAAA02010	Threatened	None	G3	S1	
green turtle						
Chloropyron maritimum ssp. maritimum	PDSCR0J0C2	Endangered	Endangered	G4?T1	S1	1B.2
salt marsh bird's-beak						
Cicindela gabbii	IICOL02080	None	None	G2G4	S1	
western tidal-flat tiger beetle						
Cicindela hirticollis gravida	IICOL02101	None	None	G5T2	S2	
sandy beach tiger beetle						
Cicindela latesignata latesignata	IICOL02113	None	None	G2G4T1T2	S1	
western beach tiger beetle						
Cicindela senilis frosti	IICOL02121	None	None	G2G3T1T3	S1	
senile tiger beetle						
Coccyzus americanus occidentalis	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
western yellow-billed cuckoo						
Cuscuta obtusiflora var. glandulosa	PDCUS01111	None	None	G5T4?	SH	2B.2
Peruvian dodder						
Danaus plexippus pop. 1	IILEPP2012	None	None	G4T2T3	S2S3	
monarch - California overwintering population						
Dudleya multicaulis	PDCRA040H0	None	None	G2	S2	1B.2
many-stemmed dudleya						
Empidonax traillii extimus	ABPAE33043	Endangered	Endangered	G5T2	S1	
southwestern willow flycatcher						
Emys marmorata	ARAAD02030	None	None	G3G4	S3	SSC
western pond turtle						
Eumops perotis californicus	AMACD02011	None	None	G5T4	S3S4	SSC
western mastiff bat						
Euphydryas editha quino	IILEPK405L	Endangered	None	G5T1T2	S1S2	
quino checkerspot butterfly						
Helianthus nuttallii ssp. parishii	PDAST4N102	None	None	G5TH	SH	1A
Los Angeles sunflower						
Horkelia cuneata var. puberula	PDROS0W045	None	None	G4T1	S1	1B.1
mesa horkelia	1000000000			0-		
Icteria virens	ABPBX24010	None	None	G5	S3	SSC
yellow-breasted chat	DD A CTTTCC:	Maria	Mana	00057070	00	40.0
Isocoma menziesii var. decumbens	PDAST57091	None	None	G3G5T2T3	S2	1B.2
decumbent goldenbush						



California Department of Fish and Wildlife California Natural Diversity Database



Smaaina	Flamout Oct	Fodoval Otato	Chata Chatara	Olekal Dawl	State Devil	Rare Plant Rank/CDFW
Species	Element Code	Federal Status	State Status	Global Rank	State Rank	SSC or FP
Lasionycteris noctivagans silver-haired bat	AMACC02010	None	None	G5	S3S4	
	AMACCO5020	None	None	C.F.	S4	
Lasiurus cinereus	AMACC05030	None	None	G5	54	
hoary bat	AMACCO5070	None	None	C.F.	S3	SSC
Lasiurus xanthinus western yellow bat	AMACC05070	None	None	G5	53	330
•	PDAST5L0A1	None	None	G4T2	S2	1B.1
Lasthenia glabrata ssp. coulteri Coulter's goldfields	FDASTSLOAT	None	None	G412	32	16.1
•	ABNME03041	None	Threatened	G3G4T1	S1	FP
Laterallus jamaicensis coturniculus California black rail	ADINIVIEU304 I	None	Tilleaterieu	G3G411	31	FF
	PDBRA1M114	None	None	G5T3	S3	4.3
Lepidium virginicum var. robinsonii Robinson's pepper-grass	PDBRATIVIT 14	None	None	GS13	33	4.3
Lepus californicus bennettii	AMAEB03051	None	None	G5T3T4	S3S4	SSC
San Diego black-tailed jackrabbit	AMALB03031	None	None	G31314	3334	330
Nasturtium gambelii	PDBRA270V0	Endangered	Threatened	G1	S1	1B.1
Gambel's water cress	I DBINAZIOVO	Lildarigered	Tilleaterieu	01	31	10.1
Navarretia prostrata	PDPLM0C0Q0	None	None	G2	S2	1B.1
prostrate vernal pool navarretia	1 DI LIMOCOQO	None	None	02	02	15.1
Nemacaulis denudata var. denudata	PDPGN0G011	None	None	G3G4T2	S2	1B.2
coast woolly-heads	1 21 31133311	140110	110110	300112	02	15.2
Nyctinomops femorosaccus	AMACD04010	None	None	G4	S3	SSC
pocketed free-tailed bat						
Nyctinomops macrotis	AMACD04020	None	None	G5	S3	SSC
big free-tailed bat						
Oncorhynchus mykiss irideus pop. 10	AFCHA0209J	Endangered	None	G5T1Q	S1	
steelhead - southern California DPS						
Orcuttia californica	PMPOA4G010	Endangered	Endangered	G1	S1	1B.1
California Orcutt grass						
Passerculus sandwichensis beldingi	ABPBX99015	None	Endangered	G5T3	S3	
Belding's savannah sparrow						
Pelecanus occidentalis californicus	ABNFC01021	Delisted	Delisted	G4T3T4	S3	FP
California brown pelican						
Pentachaeta Iyonii	PDAST6X060	Endangered	Endangered	G1	S1	1B.1
Lyon's pentachaeta						
Perognathus longimembris pacificus	AMAFD01042	Endangered	None	G5T1	S1	SSC
Pacific pocket mouse						
Phacelia stellaris	PDHYD0C510	None	None	G1	S1	1B.1
Brand's star phacelia						
Phrynosoma blainvillii	ARACF12100	None	None	G3G4	S3S4	SSC
coast horned lizard						
Polioptila californica californica	ABPBJ08081	Threatened	None	G4G5T2Q	S2	SSC
coastal California gnatcatcher						



California Department of Fish and Wildlife California Natural Diversity Database



						Rare Plant Rank/CDFW
Species	Element Code	Federal Status	State Status	Global Rank	State Rank	SSC or FP
Pseudognaphalium leucocephalum	PDAST440C0	None	None	G4	S2	2B.2
white rabbit-tobacco						
Ribes divaricatum var. parishii	PDGRO020F3	None	None	G5TX	SX	1A
Parish's gooseberry						
Riparia riparia	ABPAU08010	None	Threatened	G5	S2	
bank swallow						
Riversidian Alluvial Fan Sage Scrub	CTT32720CA	None	None	G1	S1.1	
Riversidian Alluvial Fan Sage Scrub						
Scutellaria bolanderi ssp. austromontana	PDLAM1U0A1	None	None	G4T3	S3	1B.2
southern mountains skullcap						
Sidalcea neomexicana	PDMAL110J0	None	None	G4	S2	2B.2
salt spring checkerbloom						
Southern Coastal Salt Marsh	CTT52120CA	None	None	G2	S2.1	
Southern Coastal Salt Marsh						
Spea hammondii	AAABF02020	None	None	G3	S3	SSC
western spadefoot						
Sternula antillarum browni	ABNNM08103	Endangered	Endangered	G4T2T3Q	S2	FP
California least tern						
Suaeda esteroa	PDCHE0P0D0	None	None	G3	S2	1B.2
estuary seablite						
Symphyotrichum defoliatum	PDASTE80C0	None	None	G2	S2	1B.2
San Bernardino aster						
Symphyotrichum greatae	PDASTE80U0	None	None	G2	S2	1B.3
Greata's aster						
Taxidea taxus	AMAJF04010	None	None	G5	S3	SSC
American badger						
Vireo bellii pusillus	ABPBW01114	Endangered	Endangered	G5T2	S2	
least Bell's vireo						
Walnut Forest	CTT81600CA	None	None	G1	S1.1	
Walnut Forest						

Record Count: 76



*The database upole to brown and changes and changes made since May 2019 here.

Plant List

37 matches found. Click on scientific name for details

Search Criteria

Found in Quads 3411812, 3411811, 3411718, 3311882, 3311881, 3311788, 3311872 3311871 and 3311778;

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Abronia villosa var. aurita	chaparral sand- verbena	Nyctaginaceae	annual herb	(Jan)Mar- Sep	1B.1	S2	G5T2?
Atriplex coulteri	Coulter's saltbush	Chenopodiaceae	perennial herb	Mar-Oct	1B.2	S1S2	G3
Atriplex parishii	Parish's brittlescale	Chenopodiaceae	annual herb	Jun-Oct	1B.1	S1	G1G2
Atriplex serenana var. davidsonii	Davidson's saltscale	Chenopodiaceae	annual herb	Apr-Oct	1B.2	S1	G5T1
Calochortus catalinae	Catalina mariposa lily	Liliaceae	perennial bulbiferous herb	(Feb)Mar- Jun	4.2	S3S4	G3G4
Calochortus plummerae	Plummer's mariposa lily	Liliaceae	perennial bulbiferous herb	May-Jul	4.2	S4	G4
<u>Calochortus weedii var.</u> <u>intermedius</u>	intermediate mariposa lily	Liliaceae	perennial bulbiferous herb	May-Jul	1B.2	S2	G3G4T2
Calystegia felix	lucky morning- glory	Convolvulaceae	annual rhizomatous herb	Mar-Sep	1B.1	S1	G1Q
Camissoniopsis lewisii	Lewis' evening- primrose	Onagraceae	annual herb	Mar- May(Jun)	3	S4	G4
<u>Centromadia parryi ssp.</u> <u>australis</u>	southern tarplant	Asteraceae	annual herb	May-Nov	1B.1	S2	G3T2
Chloropyron maritimum ssp. maritimum	salt marsh bird's- beak	Orobanchaceae	annual herb (hemiparasitic)	May- Oct(Nov)	1B.2	S1	G4?T1
Clinopodium mimuloides	monkey-flower savory	Lamiaceae	perennial herb	Jun-Oct	4.2	S3	G3
Convolvulus simulans	small-flowered morning-glory	Convolvulaceae	annual herb	Mar-Jul	4.2	S4	G4
Cuscuta obtusiflora var. glandulosa	Peruvian dodder	Convolvulaceae	annual vine (parasitic)	Jul-Oct	2B.2	SH	G5T4?
<u>Dudleya multicaulis</u>	many-stemmed dudleya	Crassulaceae	perennial herb	Apr-Jul	1B.2	S2	G2

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<u>Helianthus nuttallii ssp.</u> <u>parishii</u>	Los Angeles sunflower	Asteraceae	perennial rhizomatous herb	Aug-Oct	1A	SH	G5TH
Hordeum intercedens	vernal barley	Poaceae	annual herb	Mar-Jun	3.2	S3S4	G3G4
Horkelia cuneata var. puberula	mesa horkelia	Rosaceae	perennial herb	Feb- Jul(Sep)	1B.1	S1	G4T1
<u>Isocoma menziesii var.</u> <u>decumbens</u>	decumbent goldenbush	Asteraceae	perennial shrub	Apr-Nov	1B.2	S2	G3G5T2T3
Juglans californica	Southern California black walnut	Juglandaceae	perennial deciduous tree	Mar-Aug	4.2	S4	G4
<u>Lasthenia glabrata ssp.</u> <u>coulteri</u>	Coulter's goldfields	Asteraceae	annual herb	Feb-Jun	1B.1	S2	G4T2
<u>Lepidium virginicum var.</u> <u>robinsonii</u>	Robinson's pepper-grass	Brassicaceae	annual herb	Jan-Jul	4.3	S3	G5T3
Navarretia prostrata	prostrate vernal pool navarretia	Polemoniaceae	annual herb	Apr-Jul	1B.1	S2	G2
Nemacaulis denudata var. denudata	coast woolly- heads	Polygonaceae	annual herb	Apr-Sep	1B.2	S2	G3G4T2
Orcuttia californica	California Orcutt grass	Poaceae	annual herb	Apr-Aug	1B.1	S1	G1
Pentachaeta Iyonii	Lyon's pentachaeta	Asteraceae	annual herb	(Feb)Mar- Aug	1B.1	S1	G1
Phacelia hubbyi	Hubby's phacelia	Hydrophyllaceae	annual herb	Apr-Jul	4.2	S4	G4
<u>Phacelia ramosissima</u> <u>var. austrolitoralis</u>	south coast branching phacelia	Hydrophyllaceae	perennial herb	Mar-Aug	3.2	S3	G5?T3Q
Phacelia stellaris	Brand's star phacelia	Hydrophyllaceae	annual herb	Mar-Jun	1B.1	S1	G1
<u>Pseudognaphalium</u> <u>leucocephalum</u>	white rabbit- tobacco	Asteraceae	perennial herb	(Jul)Aug- Nov(Dec)	2B.2	S2	G4
Quercus engelmannii	Engelmann oak	Fagaceae	perennial deciduous tree	Mar-Jun	4.2	S3	G3
Ribes divaricatum var. parishii	Parish's gooseberry	Grossulariaceae	perennial deciduous shrub	Feb-Apr	1A	SX	G5TX
Scutellaria bolanderi ssp. austromontana	southern mountains skullcap	Lamiaceae	perennial rhizomatous herb	Jun-Aug	1B.2	S3	G4T3
Sidalcea neomexicana	salt spring checkerbloom	Malvaceae	perennial herb	Mar-Jun	2B.2	S2	G4
Suaeda esteroa	estuary seablite	Chenopodiaceae	perennial herb	(May)Jul- Oct(Jan)	1B.2	S2	G3
<u>Symphyotrichum</u> <u>defoliatum</u>	San Bernardino aster	Asteraceae	perennial rhizomatous herb	Jul- Nov(Dec)	1B.2	S2	G2
Symphyotrichum greatae	Greata's aster	Asteraceae	perennial rhizomatous herb	Jun-Oct	1B.3	S2	G2

Suggested Citation

California Native Plant Society, Rare Plant Program. 2019. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website http://www.rareplants.cnps.org [accessed 06 August 2019].

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