Appendix B:
Biological Resources Supporting Information

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Memorandum

Date: November 5, 2021

To: Kelly Rutchena, Land Acquisition and Development Manager
TTLC San José–Moorpark, LLC

From: Bernhard Warzecha, Senior Biologist/Project Manager

Subject: Biological Resources Constraints Analysis for the San José Moorpark Avenue Multi-family Residential Development Project, San José, California

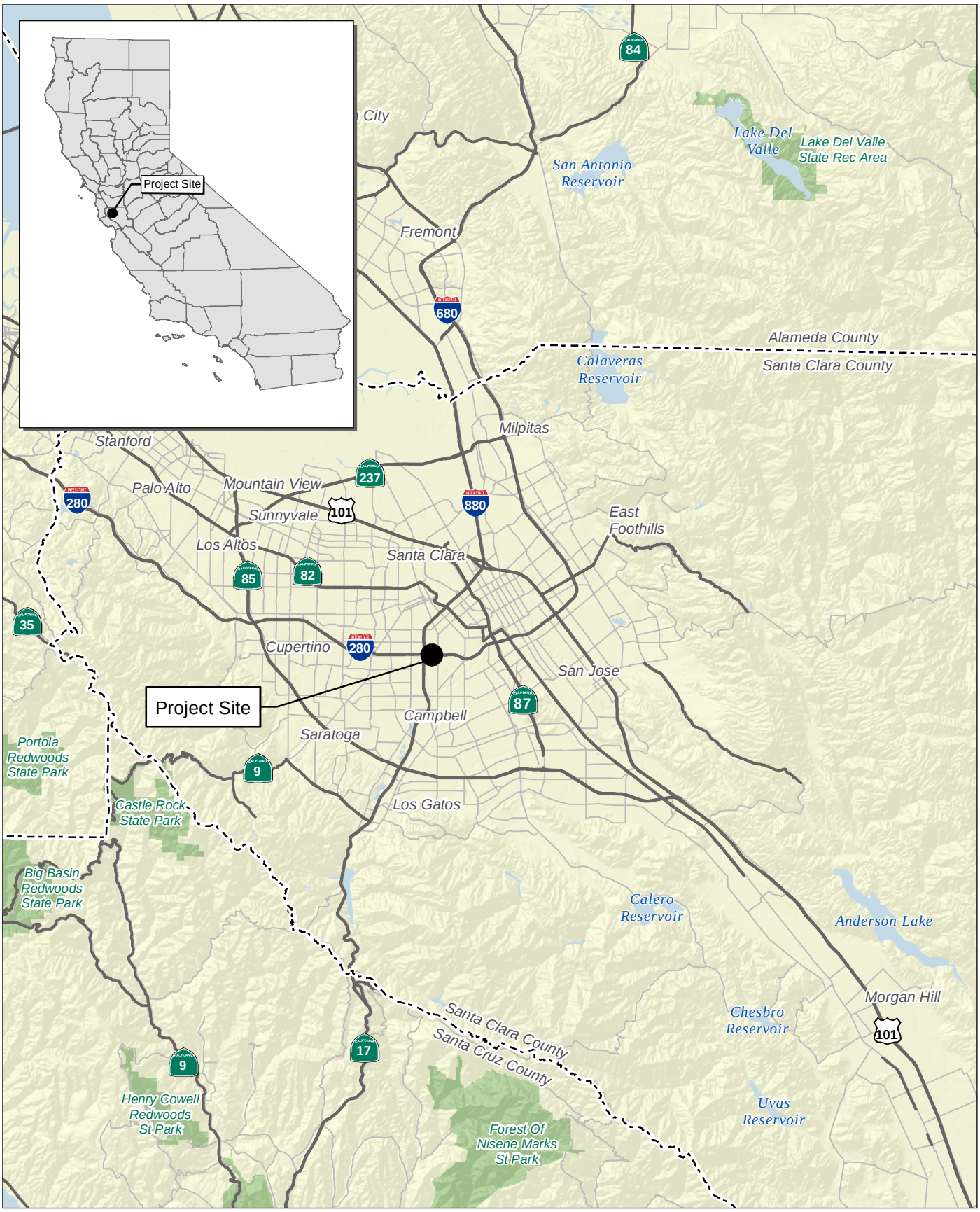
This memorandum summarizes the findings of a Biological Resources Constraints Analysis for the Moorpark Avenue, San José, California property conducted by FirstCarbon Solutions (FCS) on January 7, 2021. It also recommends measures to avoid or minimize potential project-related impacts to sensitive and protected biological resources on-site.

PROJECT LOCATION

The project site is located at 2323, 2369, 2389, and 2391 Moorpark Avenue in the City of San José, in Santa Clara County, California (Exhibit 1). The approximately 2-acre project site is surrounded by a residential neighborhood to the west, Moorpark Avenue and medical facilities to the south, single-family housing and Central Way to the east, and a portion of Central Way as well as a noise barrier and Interstate 280 (I-280) to the north (Exhibit 2). Regional access is provided to the site via I-280 and I-880. The project site consists of APNs 282-01-014, -015, -016, -022, -023, -024, and -025. The project site is located in the *San José West,* California United States Geological Survey (USGS) 7.5-Minute Quadrangle Map, (Latitude 37° 18' 59.49'' North; Longitude 121° 56' 7.64'' West).

PROJECT DESCRIPTION

FCS understands that at this time that TTLC San José–Moorpark, LLC (Applicant) is seeking approval for site annexation, pre-zoning, vesting tentative map, and a site development permit to demolish all existing structures, including 12 existing residential buildings containing 30 multi-family units—along with several storage buildings, carports, paving, and landscaping—as well as approval to construct five 3-story, multi-family buildings providing 41 attached 2- and 3-bedroom residential dwelling units. These 3-story multi-family structures would contain residential units ranging in size from approximately 1,100 to 1,800 square feet with attached two-car garages (Exhibit 3). Buildings 1 and 3 would each provide nine attached housing units. Buildings 2 and 4 would each provide eight attached housing units. Building 5 would provide seven attached housing units. The proposed project would provide parking and common areas and would install a private driveway.



Source: Census 2000 Data, The California Spatial Information Library (CaSIL).

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Exhibit 1
Regional Location Map

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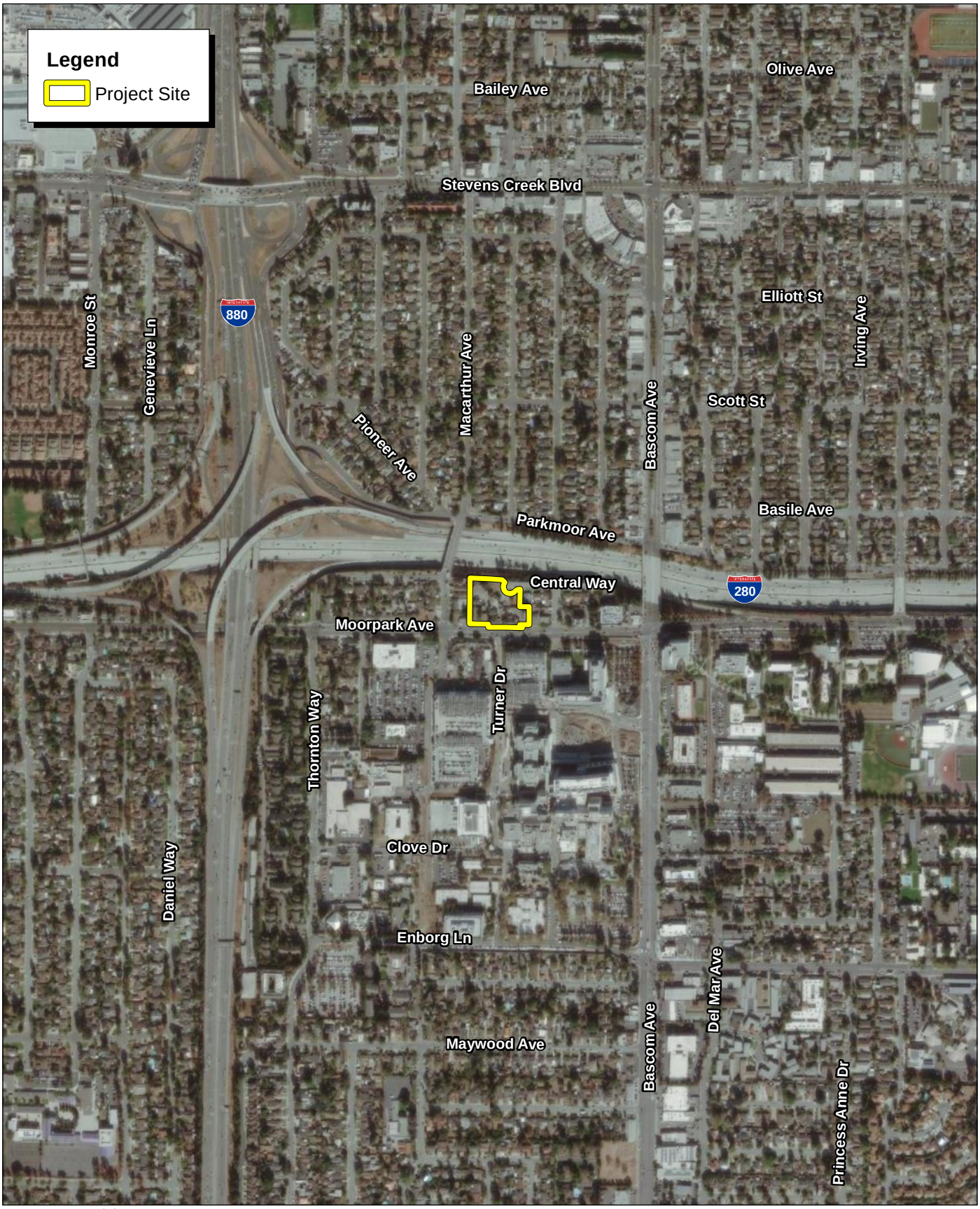
CITY OF SAN JOSÉ
MOORPARK AVENUE MULTI-FAMILY RESIDENTIAL PROJECT
BIOLOGICAL RESOURCES CONSTRAINTS ANALYSIS



Source: ESRI Aerial Imagery.

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Exhibit 2
Local Vicinity Map

Source: R3 Studios, August 23, 2021.

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Exhibit 3
Site Plan

METHODOLOGY

Analysis of the biological resources associated with the project site entailed a thorough review of relevant literature followed by a reconnaissance-level field survey to document existing site conditions and identify biological resource constraints, including the potential for special-status species to occur on-site. The survey area included the entire project site and relevant adjacent areas, where accessible.

Literature Review

Prior to performing the field survey, a literature review was conducted to provide a baseline from which to evaluate the biological resources potentially occurring on the site and in the surrounding area.

Topographic Maps and Aerial Photographs

An FCS Biologist reviewed current topographic maps and aerial photographs as a preliminary analysis of the existing conditions within the project site and immediate vicinity. Information obtained from the review of the topographic maps included elevation range, general watershed information, and potential drainage feature locations.[1] Aerial photographs provide a perspective of the most current site conditions relative to on-site and off-site land uses, preliminary plant community locations, and potential locations of wildlife movement corridors.

Soil Surveys

An FCS Biologist reviewed the Natural Resources Conservation Service (NRCS) Web Soil Survey to determine soil series (i.e., group of soils with similar profiles) and soil mapping units occurring at the project site.[2] The FCS Biologist reviewed habitat requirements pertaining to soils and substrates for special-status species to establish whether on-site conditions are suitable for occurrence of special-status plant and wildlife species.

Special-status Species Database Search

An FCS Biologist reviewed the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB), a special-status species and plant community account database, the United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) system, and the California Native Plant Society Electronic Inventory (CNPSEI) of Rare and Endangered Vascular Plants of

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[1] United States Environmental Protection Agency (EPA). 2020. Watershed Assessment, Tracking, and Environmental Results System (WATERS). Website: https://www.epa.gov/waterdata/waters-watershed-assessment-tracking-environmental-results-system. Accessed January 6, 2021.

[2] Natural Resources Conservation Service (NRCS). 2020. Web Soil Survey. United States Department of Agriculture (USDA). Website: http://www.nrcs.usda.gov/. Accessed January 6, 2021.

California database for the *San Jose West,* California USGS 7.5-minute Topography Quadrangle Map and its eight neighboring quads.[3,4,5]

Jurisdictional Waters and Wetlands

An FCS Biologist reviewed the United States Environmental Protection Agency (EPA) Watershed Assessment, Tracking, and Environmental Results System (WATERS) and aerial photography to identify potential natural drainage features and water bodies.[6] In general, all surface drainage features identified as blue-line streams on USGS maps and linear patches of vegetation are expected to exhibit evidence of flows and considered potentially subject to State and federal regulatory authority as waters of the United States and/or State. A preliminary assessment was conducted to determine the location of any existing drainages and the limits of project-related grading activities, to aid in determining whether a formal delineation of waters of the United States or State is necessary.

Protected Trees

Prior to conducting the reconnaissance-level survey, an FCS Biologist reviewed applicable City and County ordinances pertaining to tree preservation and protective measures and their tree replacement conditions or permits required.[7] Additionally, an FCS Biologist reviewed the *Preliminary Arborist Report* (dated March 3, 2020), prepared by HortScience (Appendix C).

Habitat Conservation Plan

As part of the literature review, FCS also took into consideration whether the project site lies within the boundaries of any adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or State HCP and whether any such plan would be applicable to the proposed project. The project site is located within the Santa Clara Valley Habitat Conservation Plan (SCVHCP).[8]

Reconnaissance-Level Field Survey

An FCS Biologist conducted a reconnaissance-level field survey of the project site and a 500-foot buffer area, where accessible. The objective of the survey was to assess and characterize the biological conditions on and adjacent to the project site, including an identification of special-status plant and wildlife species and their habitats. During the survey, the FCS Biologist searched for evidence of and

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[3] California Department of Fish and Wildlife (CDFW). 2021. CNDDB RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: https://map.dfg.ca.gov/rarefind/view /RareFind.aspx. Accessed January 6, 2021.

[4] United States Fish and Wildlife Service (USFWS). 2021 Information for Planning and Consultation (IPaC). Website: https://ecos.fws.gov/ipac/. Accessed January 6, 2021.

[5] California Native Plant Society (CNPS). 2020. California Native Plant Society Rare and Endangered Plant Inventory (CNPSEI). Website: http://www.rareplants.cnps.org/. Accessed January 6, 2021.

[6] United States Environmental Protection Agency (EPA). 2021. Watershed Assessment, Tracking, and Environmental Results System (WATERS). Website: https://www.epa.gov/waterdata/waters-watershed-assessment-tracking-environmental-results-system. Accessed January 6, 2021.

[7] City of San José. 2021. Heritage Trees. Webs site: https://www.sanjoseca.gov/your-government/departments/transportation/roads/landscaping/trees/heritage-trees. Accessed January 15, 2021.

[8] California Department of Fish and Wildlife (CDFW). 2021. NCCP Plan Summaries. Website: https://wildlife.ca.gov/conservation/planning/nccp/plans. Accessed January 6, 2021.

habitat for special-status species and other sensitive biological resources that were identified in the literature review. FCS Senior Biologist, Bernhard Warzecha, conducted the reconnaissance-level field survey on January 7, 2021.

RESULTS

The following section provides a summary of the results as they relate to existing conditions, special-status species, jurisdictional waters and wetlands, wildlife movement corridors, protected trees, and the SCVHCP.

Existing Conditions

Existing conditions as described in this section are based on the reconnaissance-level survey. Weather conditions during the field survey were partially overcast, with an approximate temperature of 60°F (degrees Fahrenheit). Wind speeds were 0 to 5 miles per hour. Photos of the site are provided in Attachment A.

Soils

According to the NRCS Web Soil Survey, the entire project site consists of Urban land-Elpaloalto complex, and Urban land-Landelspark complex series soils that cover approximately 1.7 acres and 0.3 acre (82 percent and 18 percent) of the project site, respectively.[9] However, little of the native soils cover is left exposed due to the developed state of the project site (Exhibit 4), which predominantly consists of hardscape and imported fill (e.g., gravel).

Vegetation Communities or Land Cover

Urban/Developed with Ornamental Trees–1.89 Acres

Developed land is characterized by permanent or semi-permanent structures, pavement, or hardscape, and landscaped areas that often require irrigation. The urban/developed vegetation community includes land that has been constructed upon or otherwise covered with a permanent man-made surface. Areas where no natural land is evident, or because large amounts of debris or other materials have been placed upon it, may also be considered. Vegetation within the urban/developed land consists of ornamental vegetation with little to no native species observed.

The majority of the project site has been developed with residential structures, sheds, hardscape, and landscaped backyards and gardens. (Exhibit 4). A small area with vegetation cover directly west of the Central Way cul-de-sac is heavily disturbed, graded, filled, and used for growing corn (*Zea mays*), pumpkin (*Cucurbita pepo*), tomatoes (*Solanum lycopersicum*), and other agricultural species. Non-native annual grass and invasive species such as stinkwort are interspersed.

[9] Natural Resources Conservation Service (NRCS). 2020. Soil Survey Official Soil Series Descriptions. United States Department of Agriculture (USDA). Website: http://www.nrcs.usda.gov/. Accessed January 6, 2021.

Source: Google Earth Aerial Imagery.

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120 60 0 120
Feet

Exhibit 4
Landcover and Potential Habitat Types

Where not used for growing backyard vegetables, remnant vegetation is dominated by small lawn areas and ornamental trees. Approximately 55 ornamental trees (both native and non-native) can be found on-site including, most notably, two approximately 50-foot-tall coast redwoods (*Sequoia sempervirens*) and an approximately 50-foot-tall incense cedar (*Calocedrus decurrens*). Other ornamental tree and shrub species observed include Mexican fan palm (*Washingtonia robusta*), coast live oak (*Quercus agrifolia*), oleander (*Nerium oleander*), and magnolia (*Magnolia grandiflora*). All trees are inventoried and addressed in the *Preliminary Arborist Report* (Appendix C).

Wildlife

The site may provide habitat for generalist and opportunistic wildlife species that are able to tolerate high levels of habitat disturbance including skunk (*Mephitis mephitis*), raccoon (*Procyon lotor*), various tree squirrels, Botta's pocket gopher (*Thomomys bottae*), mourning dove (*Zenaida macroura*; observed), American crow (*Corvus brachyrhynchos*; observed), northern mockingbird (*Mimus polyglottos*; observed), house finch (*Haemorhous mexicanus*), house sparrow, *(Passer domesticus*), Anna's hummingbird (*Calypte anna*), and California scrub jay (*Aphelocoma californica*), California towhee (*Melozone crissalis*; observed), among others.

The many trees that surround the project site could provide suitable habitat for migratory or resident nesting birds. No signs of bat roosts were observed during the field survey; however, many small openings in the existing structures on-site, specifically the wooden sheds, could provide roosting habitat for bats.

Special-status Species

A review of the CNDDB and California Native Plant Society (CNPS) Inventory determined that 58 special-status plant species and 40 special-status animal species have been recorded within a 5-mile radius of the project site (Attachment B). The likelihood and rationale for these species to occur are discussed in the paragraphs below. No special-status plants or animal species were observed during the field survey or would be expected given the fully developed status of the site and the surrounding areas.

Special-status Plants

Fifty-eight special-status plant species have been recorded in the vicinity of the project site, including Congdon's tarplant (*Centromadia parryi* ssp*. congdonii*), robust spineflower (*Chorizanthe robusta* var. *robusta*), Santa Clara Valley dudleya (*Dudleya abramsii* ssp. *setchellii*), Hoover's button-celery (*Eryngium aristulatum* var*. hooveri*), Contra Costa goldfields (*Lasthenia conjugens*), Hall's bush-mallow (*Malacothamnus hallii*), hairless popcornflower (*Plagiobothrys glaber*), chaparral ragwort (*Senecio aphanactis*), and saline clover (*Trifolium hydrophilum*). The recorded species need specific habitats or conditions, including valley grasslands, chaparral, cismontane woodlands, or wetland habitats. None of these habitat types are present. Therefore, no special-status plants are expected to occur on the project site. The developed state of the project does not provide suitable habitat any special-status species

recorded in the CNDDB or CNPS searches due the lack of natural vegetation communities and lack of suitable substrate.

Special-status Wildlife

The database reviews determined that 40 species-status wildlife species are known to occur within the of the project site (Attachment B). The vast majority of these species are not expected to occur due to the lack of suitable habitat on the project site and the developed status of the site and surrounding areas, or the project site is situated outside of their known geographic range. The vast majority of these have been locally extirpated due to extensive urbanization and habitat modification of the surrounding area.

Species including California tiger salamander (*Ambystoma californiense*), foothill yellow-legged frog (*Rana boylii*) and western pond turtle (*Emys marmorata*) are unlikely to occur due to the lack suitable aquatic habitat for rearing and foraging, connectivity to suitable habitat, and the extreme level of anthropogenic use of the site and adjacent areas. Species that depend on wetlands such as yellow rail (*Coturnicops noveboracensi*) are not expected to occur. The lack of suitable woodland and chaparral habitat also precludes many terrestrial species such as San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*). Species that are somewhat tolerant of human-altered habitats such as burrowing owl (*Athene cunicularia*) are also unlikely to occur and lack of suitable nesting and foraging habitat as a consequence of existing development within the project site. None of these species are expected to occur on-site due to the lack of suitable on-site habitat. The project site is entirely developed and is surrounded by and part of a heavily developed urban area.

The project site does contain several mature trees, which could provide suitable nesting habitat for resident and migratory bird species protected under federal and State regulations, such as birds of prey. Additionally, the trees and the abandoned buildings found on-site contain crevices that are large enough to potentially be inhabited by roosting special-status bat species including pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), and hoary bat (*Lasiurus cinereus*). However, the developed nature of the site and surrounding areas (including anthropogenic disturbance and lack of foraging opportunities) would limit the likelihood of bat use of the project site.

Jurisdictional Waters and Wetlands

No wetlands or other hydrological features that meet criteria as waters of the United States or waters of the State were observed within the proposed project site during the reconnaissance-level survey.

Wildlife Movement Corridors

Wildlife movement corridors link areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. Urbanization and the resulting fragmentation of open space areas create isolated “islands” of wildlife habitat, forming separated populations. Corridors act as an effective link between populations.

The project site was evaluated for evidence of wildlife movement corridors during the field survey. However, the scope of the survey did not include a formal wildlife movement corridor study utilizing track plates, camera stations, scent stations, or snares. The project site is entirely developed and is surrounded on all sides by urban development and roadways and other man-made structures that serve as barriers to wildlife movement.

Protected Trees

As identified in the *Preliminary Arborist Report* (dated March 3, 2020), prepared by HortScience, there are a total of 55 trees on the project site, and of these 26 meet the City's "Ordinance Sized Tree" criteria. However, no "Heritage Trees," as defined by the City's Municipal Code, are present on the project site. The proposed project would require the removal of 47 trees, 22 of which are considered "Ordinance Sized Trees." Four Ordinance Sized Trees, located off-site, can be preserved: a Paradox walnut, a coast live oak, a buckhorn, and a coast redwood.

Santa Clara Valley Habitat Conservation Plan

The proposed project lies within the boundaries of the SCVHCP Permit Area, and is located within a designated "Urban Area" within the SCVHCP. Therefore, the proposed project is not subject to any Land Cover or sensitive habitat (such as Wetland or Serpentine area) development fees, nor does the project lie within a plant or wildlife survey area. Additionally, the proposed project does not lie within a Streams and Setback or an Urban Reserve System Interface buffer zones.

BIOLOGICAL CONSTRAINTS

The biological constraints analysis determined:

- The project site does not contain suitable habitat for any special-status plants.
- The project site does not contain suitable habitat for any special-status wildlife species.
- The project site contains the potential for nesting birds during the nesting season.
- The project site potentially supports roosting bats.
- The project site does not contain potentially jurisdictional wetlands or waters of the United States or waters of the State.
- The proposed project will not significantly impact any known wildlife corridors.
- The proposed project has the potential to impact a number of trees protected under the San José Municipal Code and/or that are subject to the City's Tree Removal Permit requirements.

The following section recommends measures that would result in avoidance or minimization of potential project-related impacts to regulated biological resources on-site, including potential project design features, conditions of approval, Best Management Practices (BMPs):

Pre-construction Surveys for Nesting Birds

Several native migratory or resident birds that are protected under the Migratory Bird Treaty Act (MBTA) and/or Fish and Game Code may nest in the many trees and shrubs that are found on the project site. During nesting season, the development of the proposed project has the potential to impact protected bird nests due to the removal of this vegetation or indirectly harm birds though the generation of noise, lights, and other man-made disturbances that could result in the abandonment of eggs or young. Therefore, if work takes place during nesting season, it is recommended that the Applicant implement measures to avoid potential impacts to nesting birds, including:

- Limit tree and vegetation removal to outside the nesting season (which generally extends from February 15 to August 31).
- During nesting season, conduct pre-construction surveys for nesting birds prior to the start of construction.
- Establish construction exclusion (buffer) zones around occupied nests.

Pre-construction Surveys for Roosting Bats

The numerous abandoned buildings found on-site could have potential to be inhabited by roosting bats including potentially special-status bat species, which could be disturbed or even harmed during the demolition of these structures. Additionally, many bat species are sensitive to disturbances such as light and noise that may result from the development of the proposed project. These disturbances could awaken torpid bats (if during winter hibernation period) and cause them to abandon their roosts.

Therefore, the following actions are recommended to avoid potential impacts to roosting bats:

- Conduct pre-construction surveys for roosting bats prior to that start of construction.
- Limit the demolition of structures containing roosting bats or that exhibit signs of past or present use to between March 1 and April 15 to avoid take of torpid overwintering bats, and between September 1 and October 15 to prevent take of young that are not yet self-sufficiently volant. Establish construction exclusion (buffer) zones around occupied roosts.

Tree Preservation

Per the San José Planning, Building and Code Enforcement Department, a Tree Removal Permit is needed if the tree proposed to be removed is a street tree; a heritage tree; an ordinance-size tree, live or dead; or for the removal of any tree located on multi-family, commercial, industrial, or mixed-use property or in a common area. Therefore, the proposed project would be required to obtain a Tree Removal Permit and comply with the City's requirements for tree replacement, as provided in Table 1 below.

Table 1: Tree Replacement Ratios

Circumference of Tree to be Removed (measured at 4.5 feet above ground)	Type of Tree to be Removed			Minimum Size of Each Replacement Tree
	Native	Non-Native	Orchard	
38 inches or greater	5:1	4:1	3:1	15-gallon
19 up to 38 inches	3:1	2:1	none	15-gallon
Less than 19 inches	1:1	1:1	none	15-gallon

Note:
Trees greater than 38-inch circumference shall not be removed unless a Tree Removal Permit or equivalent, has been approved for the removal of such tree.
For Multi-family Residential, Commercial, and Industrial properties, a permit is required for removal of trees of any size.
A 38-inch in circumference equals 12.1 inches in diameter
A 24-inch box tree can be used in lieu of two 15-gallon trees
Single-family and Two-dwelling properties may be mitigated at a 1:1 ratio
x:x = tree replacement to tree loss ratio

In the event the project site does not have sufficient area to accommodate the required tree mitigation, one or more of the following measures may be implemented, to the satisfaction of the City's Environmental Principal Planner, at the development permit stage:

- The size of a 15-gallon replacement tree can be increased to 24-inch box and count as two replacement trees.
- An alternative site(s) will be identified for additional tree planting. Alternative sites may include local parks or schools or installation of trees on adjacent properties for screening.
- A donation of $755 per mitigation tree to Our City Forest or San José Beautiful for in lieu off-site tree planting in the community. These funds will be used for tree planting and maintenance of planted trees for approximately three years. A donation receipt for off-site tree planting will be provided to the Planning Project Manager prior to issuance of a development permit.

Santa Clara Valley Habitat Conservation Plan

The proposed project would not conflict with the SCVHCP given its location within a developed area that is not subject to any development fees or other requirements. The development of the proposed project is unlikely to impact any SCVHCP protected species or resource. Therefore, the proposed project will not conflict with the SCVHCP, and no further action is recommended.

REGULATORY SETTING

This section provides an overview of the laws and regulations that are applicable to the proposed project.

Federal Regulations

Endangered Species Act

The USFWS has jurisdiction over species listed as threatened or endangered under the federal Endangered Species Act of 1973. Section 9 of the Endangered Species Act protects listed species from "take," which is broadly defined as actions taken to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." The Endangered Species Act protects threatened and endangered plants and animals and their critical habitat. Candidate species are those proposed for listing; these species are usually treated by resource agencies as if they were actually listed during the environmental review process.

Migratory Bird Treaty Act

The MBTA implements international treaties between the United States and other nations devised to protect migratory birds, their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. All migratory birds and their nests are protected from take and other impacts under the MBTA (16 United States Code [USC] § 703, *et seq*.).

Bald and Golden Eagle Protection Act

The golden eagle (*Aquila chrysaetos*) and bald eagle (*Haliaeetus leucocephalus*) are afforded additional protection under the Eagle Protection Act, amended in 1973 (16 USC § 669, *et seq*.) and the Bald and Golden Eagle Protection Act (16 USC §§ 668–668d).

Clean Water Act

Section 404

The United States Army Corps of Engineers (USACE) administers Section 404 of the federal Clean Water Act (CWA), which regulates the discharge of dredge and fill material into waters of the United States.

As of the date of this report, September 28, 2021, the EPA and USACE (hereafter the agencies) are in receipt of the U.S. District Court for the District of Arizona's August 30, 2021, order vacating and remanding the Navigable Waters Protection Rule in the case of *Pascua Yaqui Tribe v. U.S. Environmental Protection Agency*. In light of this order, these agencies have halted implementation of the Navigable Waters Protection Rule and are interpreting "waters of the United States" consistent with the pre-2015 regulatory regime until further notice.[10]

[10] United States Environmental Protection Agency (EPA). 2021. Website: https://www.epa.gov/wotus/current-implementation-waters-united-states. Accessed September 9, 2021.

Therefore, since the agencies are interpreting "waters of the United States" consistent with the pre-2015 regulatory regime until further notice, our analysis follows 40 Code of Federal Regulations 230.3(s), which defines "waters of the United States" as follows:

1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide.
2. All interstate waters including interstate wetlands.
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:
4. Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
5. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
6. Which are used or could be used for industrial purposes by industries in interstate commerce.
7. All impoundments of waters otherwise defined as waters of the United States under this definition.
8. Tributaries of waters identified in paragraphs (s)(1) through (4) of this section.
9. The territorial sea.
10. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (s)(1) through (6) of this section; waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the CWA (other than cooling ponds as defined in 40 Code of Federal Regulations 423.11(m) which also meet the criteria of this definition) are not waters of the United States.

Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding CWA jurisdiction remains with the EPA and/or USACE.

"Wetland" refers to areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and seasonal wetlands. Wetlands are considered jurisdictional if they fall under one of the categories of waters of the United States defined above. The USACE jurisdiction typically extends up to the ordinary high water mark (OHWM).

In general, a USACE permit must be obtained before placing fill in wetlands or other waters of the United States. The type of permit depends on the impacted acreage, the purpose of the proposed fill, and other factors.

Section 401

As stated in Section 401 of the CWA, "any applicant for a federal permit for activities that involve a discharge to waters of the State, shall provide the federal permitting agency a certification from the State in which the discharge is proposed that states that the discharge will comply with the applicable provisions under the federal Clean Water Act." Therefore, before the USACE will issue a Section 404 permit, applicants must apply for and receive a Section 401 Water Quality Certification from the Regional Water Quality Control Board (RWQCB).

State Regulations

California Environmental Quality Act Guidelines

The following California Environmental Quality Act (CEQA) Guidelines Appendix G checklist questions serve as thresholds of significance when evaluating the potential impacts of a proposed project on biological resources. Impacts are considered significant if a project would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as being a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS.
- Have a substantial adverse effect on federally and State-protected wetlands as defined by Section 404 of the CWA (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State Habitat Conservation Plan.

California Endangered Species Act

The State of California enacted the California Endangered Species Act (CESA) in 1984. CESA pertains to State-listed endangered and threatened species. CESA requires State agencies to consult with the CDFW

when preparing CEQA documents to ensure that the State lead agency actions do not jeopardize the continued existence of a listed species or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available (FGC § 2080). CESA directs agencies to consult with the CDFW on projects or actions that could affect listed species, directs the CDFW to determine whether jeopardy would occur, and allows the CDFW to identify "reasonable and prudent alternatives" to the project consistent with conserving the species. CESA allows the CDFW to authorize exceptions to the State's prohibition against take of a listed species if the "take" of a listed species is incidental to carrying out an otherwise lawful project that has been approved under CEQA (FGC § 2081).

California Fish and Game Code

Under CESA, the CDFW has the responsibility for maintaining a list of endangered and threatened species (FGC § 2070). Fish and Game Code Sections 2050 through 2098 outline the protection provided to California's rare, endangered, and threatened species. Fish and Game Code Section 2080 prohibits the taking of plants and animals listed under the CESA. Fish and Game Code Section 2081 established an incidental take permit program for State-listed species. The CDFW maintains a list of "candidate species," which it formally notices as being under review for addition to the list of endangered or threatened species.

In addition, the Native Plant Protection Act of 1977 (NPPA) (FGC § 1900, *et seq*.) prohibits the taking, possessing, or sale within the State of any plants with a State designation of rare, threatened, or endangered (as defined by the CDFW). An exception to this prohibition in the NPPA allows landowners, under specified circumstances, to take listed plant species, provided that the owners first notify the CDFW and give the agency at least 10 days to come and retrieve (and presumably replant) the plants before they are plowed under or otherwise destroyed. Fish and Game Code Section 1913 exempts from "take" prohibition "the removal of endangered or rare native plants from a canal, lateral ditch, building site, or road, or other right of way." Project impacts to these species are not considered significant unless the species are known to have a high potential to occur within the area of disturbance associated with construction of the proposed project.

In addition to formal listing under the Endangered Species Act and CESA, some species receive additional consideration by the CDFW and local lead agencies during the CEQA process. Species that may be considered for review are those listed as a "Species of Special Concern." The CDFW maintains lists of "Species of Special Concern" that serve as species "watch lists." Species with this status may have limited distributions or limited populations, and/or the extent of their habitats has been reduced substantially, such that their populations may be threatened. Thus, their populations are monitored, and they may receive special attention during environmental review. While they do not have statutory protection, they may be considered rare under CEQA, and specific protection measures may be warranted. In addition to Species of Special Concern, the CDFW Special Animals List identifies animals that are tracked by the California Natural Diversity Database (CNDDB) and may be potentially vulnerable but warrant no federal interest and no legal protection.

Sensitive species that would qualify for listing but are not currently listed are afforded protection under CEQA. CEQA Guidelines Section 15065 (Mandatory Findings of Significance) requires that a substantial reduction in numbers of a rare or endangered species be considered a significant effect. CEQA Guidelines Section 15380 (Rare or Endangered Species) provides for the assessment of unlisted species as rare or endangered under CEQA if the species can be shown to meet the criteria for listing. Unlisted plant species on the CNPS List ranked 1A, 1B, and 2 would typically require evaluation under CEQA.

Fish and Game Code Sections 3500 to 5500 outline protection for fully protected species of mammals, birds, reptiles, amphibians, and fish. Species that are fully protected by these sections may not be taken or possessed at any time. The CDFW cannot issue permits or licenses that authorize the take of any fully protected species, except under certain circumstances such as scientific research and live capture and relocation of such species pursuant to a permit for the protection of livestock.

Under Fish and Game Code Section 3503.5, it is unlawful to take, possess, or destroy any birds in the orders of *Falconiformes* or *Strigiformes* (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto. To comply with the requirements of CESA, an agency reviewing a proposed project within its jurisdiction must determine whether any State-listed endangered or threatened species may be present in the project study area and determine whether the proposed project will have a potentially significant impact on such species. In addition, the CDFW encourages informal consultation on any proposed project that may impact a candidate species.

Project-related impacts to species on the CESA endangered or threatened list would be considered significant. State-listed species are fully protected under the mandates of CESA. “Take” of protected species incidental to otherwise lawful management activities may be authorized under Fish and Game Code Section 206.591. Authorization from the CDFW would be in the form of an Incidental Take Permit.

Fish and Game Code Section 1602 requires any entity to notify the CDFW before beginning any activity that “may substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of any river, stream, or lake” or “deposit debris, waste, or other materials that could pass into any river, stream, or lake.” “River, stream, or lake” includes waters that are episodic and perennial and ephemeral streams, desert washes, and watercourses with a subsurface flow. A Lake or Streambed Alteration Agreement will be required if the CDFW determines that project activities may substantially adversely affect fish or wildlife resources through alterations to a covered body of water. CDFW jurisdiction typically extends to the edge or “drip line” of the riparian habitat or top of bank.

California Porter-Cologne Water Quality Control Act

The RWQCB regulates actions that would involve “discharging waste, or proposing to discharge waste, within any region that could affect the water of the State” (Water Code § 13260(a)), pursuant to provisions of the Porter-Cologne Water Quality Act. “Waters of the State” are defined as “any surface water or groundwater, including saline waters, within the boundaries of the State” (Water Code §

13050€). In 2019, the California State Water Resources Control Board (State Water Board) published the *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (Procedures) to guide wetland/waters of the State determinations and the permitting process.[11]

California Native Plant Society

The CNPS maintains a rank of plant species that are native to California and that have low population numbers, limited distribution, or are otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Vascular Plants of California. Following are the definitions of the CNPS ranks:

- **Rank 1A:** Plants presumed extirpated in California and either rare or extinct elsewhere
- **Rank 1B:** Plants Rare, Threatened, or Endangered in California and elsewhere
- **Rank 2A:** Plants presumed extirpated in California but common elsewhere
- **Rank 2B:** Plants rare, threatened, or endangered in California but more common elsewhere
- **Rank 3:** Plants about which more information is needed, a review list
- **Rank 4:** Watch List: Plants of limited distribution

Potential impacts to populations of CNPS ranked plants receive consideration under CEQA review. All plants appearing as CNPS Rank 1 or 2 are considered to meet the CEQA Guidelines Section 15380 criteria. Rank 3 and 4 plants do not automatically meet this definition. Rank 4 plants do not clearly meet CEQA standards and thresholds for impact considerations. Nevertheless, some level of CEQA review is justified for California Rare Plant Rank (CRPR) 4 taxa, and under some circumstances, a full impact analysis is warranted. Taxa that can be shown to meet the criteria for endangered, rare, or threatened status under CEQA Section 15380(d) or that can be shown to be regionally rare or unique as defined in CEQA Section 15125(c) must be fully analyzed in a CEQA document. Some circumstances, such as local rarity, having occurrences peripheral to the taxon's distribution, or having occurrences on unusual substrates or rare and declining habitats, provide justification for treating some CRPR 4 taxa occurrences as regionally rare or unique. One limitation to fully analyzing impacts on CRPR 4 taxa is the difficulty in obtaining current data on the number and condition of the occurrences.[12]

Local Regulations

City of San José

San José Municipal Code

Chapters 13.28 and 13.32 of the San José Municipal Code outlines the conditions and requirements of the City's tree preservation policy.

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[11] California State Water Resources Control Board (State Water Board). 2019. State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State. April 2, 2019.

[12] California Native Plant Society (CNPS). 2020. Considerations for Including CRPR 4 Plant Taxa in CEQA Biological Resource Impact Analysis. Sacramento, CA. 21 January 2020.

Chapter 13.28–STREET TREES, HEDGES AND SHRUBS

The City defines a 'heritage tree' as, any tree which, because of factors including but not limited to its history, girth, height, species or unique quality, has been found by the City Council to have a special significance to the community shall be designated a heritage tree. Such trees shall be placed on a heritage tree list which shall be adopted by the City Council by resolution, which resolution may be amended from time to time to add to or delete certain trees therefrom.[13]

Chapter 13.32–TREE REMOVAL CONTROLS

The City defines an ordinance sized tree is either a single trunk or stem with a circumference of at least 38 inches measured at a height 54 inches above natural grade slope, or multiple trunks where the combined circumferences of each trunk at 54 inches above natural grade slope add up to at least 38 inches.[14]

Santa Clara Valley Habitat Conservation Plan

The SCVHCP provides a framework for promoting the protection and recovery of natural resources, including endangered species, while streamlining the permitting process for planned development, infrastructure, and maintenance activities. The purpose of the SCVHCP is to protect, enhance, and restore natural resources in specific areas of Santa Clara County and contribute to the recovery of endangered species. The SCVHCP evaluates natural-resource impacts and mitigation requirements comprehensively in a way that is more efficient and effective for at-risk species and their essential habitats. The SCVHCP was adopted by the City of San José on January 29, 2013.

[13] San José Municipal Code. 2020. Chapter 13.28 - STREET TREES, HEDGES AND SHRUBS. Website: https://library.municode.com/ca/san_jose/codes/code_of_ordinances?nodeId=TIT13STSIPUPL_CH13.32TRRECO_13.32.020DE. Accessed December 16, 2020.

[14] San José Municipal Code. 2020. Chapter 13.32 - TREE REMOVAL CONTROLS. Website: https://library.municode.com/ca/san_jose/codes/code_of_ordinances?nodeId=TIT13STSIPUPL_CH13.32TRRECO_13.32.020DE. Accessed December 16, 2020.

Appendix A:
Site Photographs

Photograph 1: Looking west from Central Way, northern border in background.

Photograph 2: Looking northwest from Central Way retaining wall separates I-280 from project site.

Photograph 3: Looking southwest from Central Way.

Photograph 4: Looking west from Central Way.

Appendix B:
Database Search Results

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Mountain View (3712241) OR Milpitas (3712148) OR Calaveras Reservoir (3712147) OR Cupertino (3712231) OR San Jose East (3712137) OR San Jose West (3712138) OR Castle Rock Ridge (3712221) OR Los Gatos (3712128) OR Santa Teresa Hills (3712127))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Accipiter cooperii Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
Adela oplerella Opler's longhorn moth	IILEE0G040	None	None	G2	S2	
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Threatened	G2G3	S1S2	SSC
Ambystoma californiense California tiger salamander	AAAAA01180	Threatened	Threatened	G2G3	S2S3	WL
Amsinckia lunaris bent-flowered fiddleneck	PDBOR01070	None	None	G3	S3	1B.2
Aneides niger Santa Cruz black salamander	AAAAD01070	None	None	G3	S3	SSC
Anniella pulchra Northern California legless lizard	ARACC01020	None	None	G3	S3	SSC
Anodonta californiensis California floater	IMBIV04020	None	None	G3Q	S2?	
Antrozous pallidus pallid bat	AMACC10010	None	None	G5	S3	SSC
Aquila chrysaetos golden eagle	ABNKC22010	None	None	G5	S3	FP
Arctostaphylos silvicola Bonny Doon manzanita	PDERI041F0	None	None	G1	S1	1B.2
Ardea alba great egret	ABNGA04040	None	None	G5	S4	
Ardea herodias great blue heron	ABNGA04010	None	None	G5	S4	
Astragalus tener var. tener alkali milk-vetch	PDFAB0F8R1	None	None	G2T1	S1	1B.2
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S3	SSC
Atriplex depressa brittlescale	PDCHE042L0	None	None	G2	S2	1B.2
Atriplex minuscula lesser saltscale	PDCHE042M0	None	None	G2	S2	1B.1
Balsamorhiza macrolepis big-scale balsamroot	PDAST11061	None	None	G2	S2	1B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Bombus caliginosus obscure bumble bee	IIHYM24380	None	None	G4?	S1S2	
Bombus crotchii Crotch bumble bee	IIHYM24480	None	Candidate Endangered	G3G4	S1S2	
Bombus occidentalis western bumble bee	IIHYM24250	None	Candidate Endangered	G2G3	S1	
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
Calasellus californicus An isopod	ICMAL34010	None	None	G2	S2	
Calyptridium parryi var. hesseae Santa Cruz Mountains pussypaws	PDPOR09052	None	None	G3G4T2	S2	1B.1
Campanula exigua chaparral harebell	PDCAM020A0	None	None	G2	S2	1B.2
Centromadia parryi ssp. congdonii Congdon's tarplant	PDAST4R0P1	None	None	G3T1T2	S1S2	1B.1
Charadrius alexandrinus nivosus western snowy plover	ABNNB03031	Threatened	None	G3T3	S2S3	SSC
Chlorogalum pomeridianum var. minus dwarf soaproot	PMLIL0G042	None	None	G5T3	S3	1B.2
Chloropyron maritimum ssp. palustre Point Reyes salty bird's-beak	PDSCR0J0C3	None	None	G4?T2	S2	1B.2
Chorizanthe pungens var. hartwegiana Ben Lomond spineflower	PDPGN040M1	Endangered	None	G2T1	S1	1B.1
Chorizanthe robusta var. robusta robust spineflower	PDPGN040Q2	Endangered	None	G2T1	S1	1B.1
Circus hudsonius northern harrier	ABNKC11011	None	None	G5	S3	SSC
Cirsium fontinale var. campylon Mt. Hamilton thistle	PDAST2E163	None	None	G2T2	S2	1B.2
Clarkia concinna ssp. automixa Santa Clara red ribbons	PDONA050A1	None	None	G5?T3	S3	4.3
Coccyzus americanus occidentalis western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
Collinsia multicolor San Francisco collinsia	PDSCR0H0B0	None	None	G2	S2	1B.2
Corynorhinus townsendii Townsend's big-eared bat	AMACC08010	None	None	G3G4	S2	SSC
Coturnicops noveboracensis yellow rail	ABNME01010	None	None	G4	S1S2	SSC
Cypseloides niger black swift	ABNUA01010	None	None	G4	S2	SSC

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Dicamptodon ensatus California giant salamander	AAAAH01020	None	None	G3	S2S3	SSC
Dipodomys heermanni berkeleyensis Berkeley kangaroo rat	AMAFD03061	None	None	G3G4T1	S1	
Dipodomys venustus venustus Santa Cruz kangaroo rat	AMAFD03042	None	None	G4T1	S1	
Dirca occidentalis western leatherwood	PDTHY03010	None	None	G2	S2	1B.2
Dudleya abramsii ssp. setchellii Santa Clara Valley dudleya	PDCRA040Z0	Endangered	None	G4T2	S2	1B.1
Egretta thula snowy egret	ABNGA06030	None	None	G5	S4	
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Erethizon dorsatum North American porcupine	AMAFJ01010	None	None	G5	S3	
Eryngium aristulatum var. hooveri Hoover's button-celery	PDAPI0Z043	None	None	G5T1	S1	1B.1
Euphydryas editha bayensis Bay checkerspot butterfly	IILEPK4055	Threatened	None	G5T1	S1	
Extriplex joaquinana San Joaquin spearscale	PDCHE041F3	None	None	G2	S2	1B.2
Falco peregrinus anatum American peregrine falcon	ABNKD06071	Delisted	Delisted	G4T4	S3S4	FP
Fritillaria liliacea fragrant fritillary	PMLIL0V0C0	None	None	G2	S2	1B.2
Geothlypis trichas sinuosa saltmarsh common yellowthroat	ABPBX1201A	None	None	G5T3	S3	SSC
Gonidea angulata western ridged mussel	IMBIV19010	None	None	G3	S1S2	
Hoita strobilina Loma Prieta hoita	PDFAB5Z030	None	None	G2?	S2?	1B.1
Lasiurus cinereus hoary bat	AMACC05030	None	None	G5	S4	
Lasthenia conjugens Contra Costa goldfields	PDAST5L040	Endangered	None	G1	S1	1B.1
Laterallus jamaicensis coturniculus California black rail	ABNME03041	None	Threatened	G3G4T1	S1	FP
Lepidurus packardi vernal pool tadpole shrimp	ICBRA10010	Endangered	None	G4	S3S4	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Lessingia micradenia var. glabrata smooth lessingia	PDAST5S062	None	None	G2T2	S2	1B.2
Malacothamnus arcuatus arcuate bush-mallow	PDMAL0Q0E0	None	None	G2Q	S2	1B.2
Malacothamnus hallii Hall's bush-mallow	PDMAL0Q0F0	None	None	G2	S2	1B.2
Masticophis lateralis euryxanthus Alameda whipsnake	ARADB21031	Threatened	Threatened	G4T2	S2	
Melospiza melodia pusillula Alameda song sparrow	ABPBXA301S	None	None	G5T2?	S2S3	SSC
Microcina homi Hom's micro-blind harvestman	ILARA47020	None	None	G1	S1	
Monolopia gracilens woodland woollythreads	PDAST6G010	None	None	G3	S3	1B.2
Myotis evotis long-eared myotis	AMACC01070	None	None	G5	S3	
Myotis yumanensis Yuma myotis	AMACC01020	None	None	G5	S4	
Navarretia prostrata prostrate vernal pool navarretia	PDPLM0C0Q0	None	None	G2	S2	1B.2
Neotoma fuscipes annectens San Francisco dusky-footed woodrat	AMAFF08082	None	None	G5T2T3	S2S3	SSC
North Central Coast Drainage Sacramento Sucker/Roach River North Central Coast Drainage Sacramento Sucker/Roach River	CARA2623CA	None	None	GNR	SNR	
Northern Coastal Salt Marsh Northern Coastal Salt Marsh	CTT52110CA	None	None	G3	S3.2	
Nycticorax nycticorax black-crowned night heron	ABNGA11010	None	None	G5	S4	
Oncorhynchus kisutch pop. 4 coho salmon - central California coast ESU	AFCHA02034	Endangered	Endangered	G4	S2	
Oncorhynchus mykiss irideus pop. 8 steelhead - central California coast DPS	AFCHA0209G	Threatened	None	G5T2T3Q	S2S3	
Pandion haliaetus osprey	ABNKC01010	None	None	G5	S4	WL
Pedicularis dudleyi Dudley's lousewort	PDSCR1K0D0	None	Rare	G2	S2	1B.2
Penstemon rattanii var. kleei Santa Cruz Mountains beardtongue	PDSCR1L5B1	None	None	G4T2	S2	1B.2
Pentachaeta bellidiflora white-rayed pentachaeta	PDAST6X030	Endangered	Endangered	G1	S1	1B.1
Phrynosoma blainvillii coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Piperia candida white-flowered rein orchid	PMORC1X050	None	None	G3	S3	1B.2
Plagiobothrys glaber hairless popcornflower	PDBOR0V0B0	None	None	GX	SX	1A
Progne subis purple martin	ABPAU01010	None	None	G5	S3	SSC
Puccinellia simplex California alkali grass	PMPOA53110	None	None	G3	S2	1B.2
Rallus obsoletus obsoletus California Ridgway's rail	ABNME05011	Endangered	Endangered	G5T1	S1	FP
Rana boylii foothill yellow-legged frog	AAABH01050	None	Endangered	G3	S3	SSC
Rana draytonii California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
Reithrodontomys raviventris salt-marsh harvest mouse	AMAFF02040	Endangered	Endangered	G1G2	S1S2	FP
Rynchops niger black skimmer	ABNNM14010	None	None	G5	S2	SSC
Sanicula saxatilis rock sanicle	PDAPI1Z0H0	None	Rare	G2	S2	1B.2
Senecio aphanactis chaparral ragwort	PDAST8H060	None	None	G3	S2	2B.2
Serpentine Bunchgrass Serpentine Bunchgrass	CTT42130CA	None	None	G2	S2.2	
Sidalcea malachroides maple-leaved checkerbloom	PDMAL110E0	None	None	G3	S3	4.2
Sorex vagrans halicoetes salt-marsh wandering shrew	AMABA01071	None	None	G5T1	S1	SSC
Spirinchus thaleichthys longfin smelt	AFCHB03010	Candidate	Threatened	G5	S1	
Sternula antillarum browni California least tern	ABNNM08103	Endangered	Endangered	G4T2T3Q	S2	FP
Streptanthus albidus ssp. albidus Metcalf Canyon jewelflower	PDBRA2G011	Endangered	None	G2T1	S1	1B.1
Streptanthus albidus ssp. peramoenus most beautiful jewelflower	PDBRA2G012	None	None	G2T2	S2	1B.2
Suaeda californica California seablite	PDCHE0P020	Endangered	None	G1	S1	1B.1
Taxidea taxus American badger	AMAJF04010	None	None	G5	S3	SSC
Trifolium buckwestiorum Santa Cruz clover	PDFAB402W0	None	None	G2	S2	1B.1

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Trifolium hydrophilum saline clover	PDFAB400R5	None	None	G2	S2	1B.2
Trimerotropis infantilis Zayante band-winged grasshopper	IIORT36030	Endangered	None	G1	S1	
Tryonia imitator mimic tryonia (=California brackishwater snail)	IMGASJ7040	None	None	G2	S2	

Record Count: 105

CNPS California Native Plant Society **Inventory of Rare and Endangered Plants**

*The database used to provide updates to the Online Inventory is under construction. View updates and changes made since May 2019 here.

Plant List

58 matches found. *Click on scientific name for details*

Search Criteria
Found in Quads 3712241, 3712148, 3712147, 3712231, 3712138, 3712137, 3712221 3712128 and 3712127;

Modify Search Criteria Export to Excel Modify Columns Modify Sort Display Photos

Scientific Name	Common Name	Family	Lifeform	Federal Listing Status	State Listing Status	CA Rare Plant Rank	Habitats	Lowest Elevation	Highest Elevation	Blooming Period
Acanthomintha lanceolata	Santa Clara thorn-mint	Lamiaceae	annual herb			4.2	• Chaparral (often serpentinite) • Cismontane woodland • Coastal scrub	80 m	1200 m	Mar-Jun
Amsinckia lunaris	bent-flowered fiddleneck	Boraginaceae	annual herb			1B.2	• Coastal bluff scrub • Cismontane woodland • Valley and foothill grassland	3 m	500 m	Mar-Jun
Androsace elongata ssp. acuta	California androsace	Primulaceae	annual herb			4.2	• Chaparral • Cismontane woodland • Coastal scrub • Meadows and seeps • Pinyon and juniper woodland • Valley and foothill grassland	150 m	1305 m	Mar-Jun
Arabis blepharophylla	coast rockcress	Brassicaceae	perennial herb			4.3	• Broadleafed upland forest • Coastal bluff scrub • Coastal prairie • Coastal scrub	3 m	1100 m	Feb-May
	Bonny Doon	Ericaceae	perennial			1B.2	• Closed-	120 m	600 m	Jan-Mar

Arctostaphylos silvicola	manzanita		evergreen shrub			cone coniferous forest • Chaparral • Lower montane coniferous forest			
Astragalus tener var. tener	alkali milk-vetch	Fabaceae	annual herb		1B.2	• Playas • Valley and foothill grassland (adobe clay) • Vernal pools	1 m	60 m	Mar-Jun
Atriplex depressa	brittlescale	Chenopodiaceae	annual herb		1B.2	• Chenopod scrub • Meadows and seeps • Playas • Valley and foothill grassland • Vernal pools	1 m	320 m	Apr-Oct
Atriplex minuscula	lesser saltscale	Chenopodiaceae	annual herb		1B.1	• Chenopod scrub • Playas • Valley and foothill grassland	15 m	200 m	May-Oct
Balsamorhiza macrolepis	big-scale balsamroot	Asteraceae	perennial herb		1B.2	• Chaparral • Cismontane woodland • Valley and foothill grassland	45 m	1555 m	Mar-Jun
Calandrinia breweri	Brewer's calandrinia	Montiaceae	annual herb		4.2	• Chaparral • Coastal scrub	10 m	1220 m	(Jan)Mar-Jun
Calystegia collina ssp. venusta	South Coast Range morning-glory	Convolvulaceae	perennial rhizomatous herb		4.3	• Chaparral • Cismontane woodland • Valley and foothill grassland	425 m	1490 m	Apr-Jun
Campanula exigua	chaparral harebell	Campanulaceae	annual herb		1B.2	• Chaparral (rocky, usually serpentinite)	275 m	1250 m	May-Jun
Centromadia parryi ssp. congdonii	Congdon's tarplant	Asteraceae	annual herb		1B.1	• Valley and foothill grassland (alkaline)	0 m	230 m	May-Oct(Nov)
Chloropyron maritimum ssp. palustre	Point Reyes bird's-beak	Orobanchaceae	annual herb (hemiparasitic)		1B.2	• Marshes and swamps (coastal salt)	0 m	10 m	Jun-Oct
Chorizanthe pungens var. hartwegiana	Ben Lomond spineflower	Polygonaceae	annual herb	FE	1B.1	• Lower montane coniferous forest (maritime ponderosa pine sandhills)	90 m	610 m	Apr-Jul

Chorizanthe robusta var. robusta	robust spineflower	Polygonaceae	annual herb	FE	1B.1	• Chaparral (maritime) • Cismontane woodland (openings) • Coastal dunes • Coastal scrub	3 m	300 m	Apr-Sep
Cirsium fontinale var. campylon	Mt. Hamilton fountain thistle	Asteraceae	perennial herb		1B.2	• Chaparral • Cismontane woodland • Valley and foothill grassland	100 m	890 m	(Feb)Apr-Oct
Clarkia breweri	Brewer's clarkia	Onagraceae	annual herb		4.2	• Chaparral • Cismontane woodland • Coastal scrub	215 m	1115 m	Apr-Jun
Clarkia concinna ssp. automixa	Santa Clara red ribbons	Onagraceae	annual herb		4.3	• Chaparral • Cismontane woodland	90 m	1500 m	(Apr)May-Jun(Jul)
Clarkia lewisii	Lewis' clarkia	Onagraceae	annual herb		4.3	• Broadleafed upland forest • Closed-cone coniferous forest • Chaparral • Cismontane woodland • Coastal scrub	30 m	1195 m	May-Jul
Collinsia multicolor	San Francisco collinsia	Plantaginaceae	annual herb		1B.2	• Closed-cone coniferous forest • Coastal scrub	30 m	250 m	(Feb)Mar-May
Cypripedium fasciculatum	clustered lady's-slipper	Orchidaceae	perennial rhizomatous herb		4.2	• Lower montane coniferous forest • North Coast coniferous forest	100 m	2435 m	Mar-Aug
Dirca occidentalis	western leatherwood	Thymelaeaceae	perennial deciduous shrub		1B.2	• Broadleafed upland forest • Closed-cone coniferous forest • Chaparral • Cismontane woodland • North Coast coniferous	25 m	425 m	Jan-Mar(Apr)

						forest • Riparian forest • Riparian woodland			
Dudleya abramsii ssp. setchellii	Santa Clara Valley dudleya	Crassulaceae	perennial herb	FE	1B.1	• Cismontane woodland • Valley and foothill grassland	60 m	455 m	Apr-Oct
Eriophyllum jepsonii	Jepson's woolly sunflower	Asteraceae	perennial herb		4.3	• Chaparral • Cismontane woodland • Coastal scrub	200 m	1025 m	Apr-Jun
Eryngium aristulatum var. hooveri	Hoover's button-celery	Apiaceae	annual / perennial herb		1B.1	• Vernal pools	3 m	45 m	(Jun)Jul(Aug)
Extriplex joaquinana	San Joaquin spearscale	Chenopodiaceae	annual herb		1B.2	• Chenopod scrub • Meadows and seeps • Playas • Valley and foothill grassland	1 m	835 m	Apr-Oct
Fritillaria liliacea	fragrant fritillary	Liliaceae	perennial bulbiferous herb		1B.2	• Cismontane woodland • Coastal prairie • Coastal scrub • Valley and foothill grassland	3 m	410 m	Feb-Apr
Galium andrewsii ssp. gatense	phlox-leaf serpentine bedstraw	Rubiaceae	perennial herb		4.2	• Chaparral • Cismontane woodland • Lower montane coniferous forest	150 m	1450 m	Apr-Jul
Hoita strobilina	Loma Prieta hoita	Fabaceae	perennial herb		1B.1	• Chaparral • Cismontane woodland • Riparian woodland	30 m	860 m	May-Jul(Aug-Oct)
Iris longipetala	coast iris	Iridaceae	perennial rhizomatous herb		4.2	• Coastal prairie • Lower montane coniferous forest • Meadows and seeps	0 m	600 m	Mar-May
Lasthenia conjugens	Contra Costa goldfields	Asteraceae	annual herb	FE	1B.1	• Cismontane woodland • Playas (alkaline) • Valley and foothill	0 m	470 m	Mar-Jun

					grassland • Vernal pools			
Leptosiphon acicularis	bristly leptosiphon	Polemoniaceae	annual herb	4.2	• Chaparral • Cismontane woodland • Coastal prairie • Valley and foothill grassland	55 m	1500 m	Apr-Jul
Leptosiphon ambiguus	serpentine leptosiphon	Polemoniaceae	annual herb	4.2	• Cismontane woodland • Coastal scrub • Valley and foothill grassland	120 m	1130 m	Mar-Jun
Leptosiphon grandiflorus	large-flowered leptosiphon	Polemoniaceae	annual herb	4.2	• Coastal bluff scrub • Closed-cone coniferous forest • Cismontane woodland • Coastal dunes • Coastal prairie • Coastal scrub • Valley and foothill grassland	5 m	1220 m	Apr-Aug
Lessingia hololeuca	woolly-headed lessingia	Asteraceae	annual herb	3	• Broadleafed upland forest • Coastal scrub • Lower montane coniferous forest • Valley and foothill grassland	15 m	305 m	Jun-Oct
Lessingia micradenia var. glabrata	smooth lessingia	Asteraceae	annual herb	1B.2	• Chaparral • Cismontane woodland • Valley and foothill grassland	120 m	420 m	(Apr-Jun)Jul-Nov
Malacothamnus arcuatus	arcuate bush-mallow	Malvaceae	perennial evergreen shrub	1B.2	• Chaparral • Cismontane woodland	15 m	355 m	Apr-Sep
Malacothamnus hallii	Hall's bush-mallow	Malvaceae	perennial evergreen shrub	1B.2	• Chaparral • Coastal scrub	10 m	760 m	(Apr)May-Sep(Oct)
Micropus amphibolus	Mt. Diablo cottonweed	Asteraceae	annual herb	3.2	• Broadleafed upland forest • Chaparral	45 m	825 m	Mar-May

							• Cismontane woodland • Valley and foothill grassland			
Mielichhoferia elongata	elongate copper moss	Mielichhoferiaceae	moss			4.3	• Broadleafed upland forest • Chaparral • Cismontane woodland • Coastal scrub • Lower montane coniferous forest • Meadows and seeps • Subalpine coniferous forest	0 m	1960 m	
Monolopia gracilens	woodland woolythreads	Asteraceae	annual herb			1B.2	• Broadleafed upland forest (openings) • Chaparral (openings) • Cismontane woodland • North Coast coniferous forest (openings) • Valley and foothill grassland	100 m	1200 m	(Feb)Mar-Jul
Navarretia prostrata	prostrate vernal pool navarretia	Polemoniaceae	annual herb			1B.1	• Coastal scrub • Meadows and seeps • Valley and foothill grassland (alkaline) • Vernal pools	3 m	1210 m	Apr-Jul
Pentachaeta bellidiflora	white-rayed pentachaeta	Asteraceae	annual herb	FE	CE	1B.1	• Cismontane woodland • Valley and foothill grassland (often serpentinite)	35 m	620 m	Mar-May
Piperia candida	white-flowered rein orchid	Orchidaceae	perennial herb			1B.2	• Broadleafed upland forest • Lower montane coniferous forest • North Coast coniferous forest	30 m	1310 m	(Mar)May-Sep

Plagiobothrys chorisianus var. hickmanii	Hickman's popcornflower	Boraginaceae	annual herb			4.2	• Closed-cone coniferous forest • Chaparral • Coastal scrub • Marshes and swamps • Vernal pools	15 m	185 m	Apr-Jun
Plagiobothrys glaber	hairless popcornflower	Boraginaceae	annual herb			1A	• Meadows and seeps (alkaline) • Marshes and swamps (coastal salt)	15 m	180 m	Mar-May
Puccinellia simplex	California alkali grass	Poaceae	annual herb			1B.2	• Chenopod scrub • Meadows and seeps • Valley and foothill grassland • Vernal pools	2 m	930 m	Mar-May
Sanicula saxatilis	rock sanicle	Apiaceae	perennial herb		CR	1B.2	• Broadleafed upland forest • Chaparral • Valley and foothill grassland	620 m	1175 m	Apr-May
Senecio aphanactis	chaparral ragwort	Asteraceae	annual herb			2B.2	• Chaparral • Cismontane woodland • Coastal scrub	15 m	800 m	Jan-Apr(May)
Sidalcea malachroides	maple-leaved checkerbloom	Malvaceae	perennial herb			4.2	• Broadleafed upland forest • Coastal prairie • Coastal scrub • North Coast coniferous forest • Riparian woodland	0 m	730 m	(Mar)Apr-Aug
Streptanthus albidus ssp. albidus	Metcalf Canyon jewelflower	Brassicaceae	annual herb		FE	1B.1	• Valley and foothill grassland (serpentinite)	45 m	800 m	Apr-Jul
Streptanthus albidus ssp. peramoenus	most beautiful jewelflower	Brassicaceae	annual herb			1B.2	• Chaparral • Cismontane woodland • Valley and foothill grassland	95 m	1000 m	(Mar)Apr-Sep(Oct)
Stuckenia filiformis ssp. alpina	slender-leaved pondweed	Potamogetonaceae	perennial rhizomatous herb (aquatic)			2B.2	• Marshes and swamps (assorted shallow freshwater)	300 m	2150 m	May-Jul

Suaeda californica	California seablite	Chenopodiaceae	perennial evergreen shrub	FE	1B.1	• Marshes and swamps (coastal salt)	0 m	15 m	Jul-Oct
Trifolium buckwestiorum	Santa Cruz clover	Fabaceae	annual herb		1B.1	• Broadleafed upland forest • Cismontane woodland • Coastal prairie	105 m	610 m	Apr-Oct
Trifolium hydrophilum	saline clover	Fabaceae	annual herb		1B.2	• Marshes and swamps • Valley and foothill grassland (mesic, alkaline) • Vernal pools	0 m	300 m	Apr-Jun
Tropidocarpum capparideum	caper-fruited tropidocarpum	Brassicaceae	annual herb		1B.1	• Valley and foothill grassland (alkaline hills)	1 m	455 m	Mar-Apr

Suggested Citation

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Contributors
The Calflora Database
The California Lichen Society
California Natural Diversity Database
The Jepson Flora Project
The Consortium of California Herbaria
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Questions and Comments
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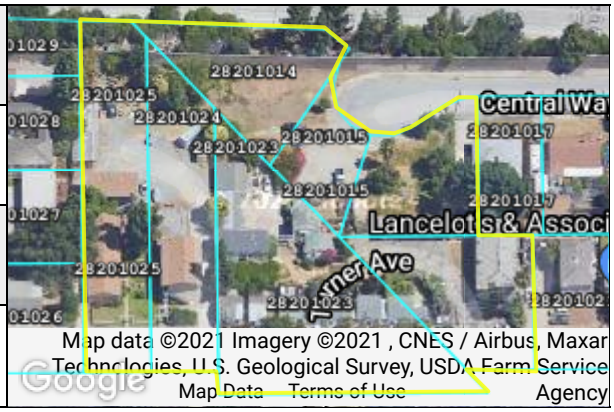
SANTA CLARA VALLEY HABITAT AGENCY

City of Gilroy | City of Morgan Hill | City of San José | County of Santa Clara | Santa Clara Valley Water District | Santa Clara Valley Transportation Authority

General Information

Digitized Area	1.9 acres
City	N/A
Urban Service Area	▪ San Jose (1.9 acres)
Planning Limits of Urban Growth	▪ San Jose (1.9 acres)



Habitat Plan Information

Habitat Plan Permit Area	YES
Private Development Areas	▪ Area 4: Urban Development Equal to or Greater Than 2 Acres Covered (1.9 acres)
Land Cover	▪ Urban - Suburban (1.9 acres)
Land Cover Fee Zones	▪ Urban Areas (No Land Cover Fee) (1.9 acres)
Potential Wetland Fee Zones	N/A
Potential Serpentine Fee Zones	N/A
Burrowing Owl Survey and Fee Zone	N/A
Wildlife Survey Areas	N/A
Plant Survey Areas	N/A
Category 1 Streams and Setbacks	N/A
Category 1 Streams and Setbacks (stream length)	N/A
Valley Oak and Blue Oak Woodland	N/A
Urban Reserve System Interface Zones	N/A

The data provided in the Geobrowser are intended to be used as an initial planning tool for project applicants. All fees and survey requirements will be implemented based on field-verified information that is specific to each project.

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Santa Clara County, California

Local office

Sacramento Fish And Wildlife Office

(916) 414-6600
(916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

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1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Birds

NAME	STATUS

California Clapper Rail Rallus longirostris obsoletus — Endangered
Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/4240

California Least Tern Sterna antillarum browni — Endangered
Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/8104

Amphibians

NAME	STATUS

California Red-legged Frog Rana draytonii — Threatened
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/2891

California Tiger Salamander Ambystoma californiense — Threatened
There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/2076

Fishes

NAME	STATUS

Delta Smelt Hypomesus transpacificus — Threatened
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/321

Insects

NAME	STATUS

Bay Checkerspot Butterfly Euphydryas editha bayensis — Threatened
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/2320

San Bruno Elfin Butterfly Callophrys mossii bayensis — Endangered
Wherever found
There is **proposed** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/3394

Flowering Plants

NAME	STATUS
Robust Spineflower Chorizanthe robusta var. robusta Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/9287	Endangered

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the

Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)
Allen's Hummingbird Selasphorus sasin This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9637	Breeds Feb 1 to Jul 15
Burrowing Owl Athene cunicularia This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9737	Breeds Mar 15 to Aug 31
Common Yellowthroat Geothlypis trichas sinuosa This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/2084	Breeds May 20 to Jul 31
Nuttall's Woodpecker Picoides nuttallii This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9410	Breeds Apr 1 to Jul 20
Oak Titmouse Baeolophus inornatus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9656	Breeds Mar 15 to Jul 15

Song Sparrow Melospiza melodia — Breeds Feb 20 to Sep 5
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Spotted Towhee Pipilo maculatus clementae — Breeds Apr 15 to Jul 20
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/4243

Tricolored Blackbird Agelaius tricolor — Breeds Mar 15 to Aug 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3910

Willet Tringa semipalmata — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look

carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

THERE ARE NO KNOWN WETLANDS AT THIS LOCATION.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Appendix C:
Arborist Report

Preliminary Arborist Report

2323 - 2391 Moorpark Ave.
San Jose, CA

Prepared for:
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Revised March 2021

HORT SCIENCE
BARTLETT CONSULTING
Divisions of The C.A. Bartlett Tree Expert Company

Preliminary Arborist Report

2323 - 2391 Moorpark Ave.
San Jose, CA

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Exhibits

Tree Assessment Form

Tree Assessment Plan

Preliminary Arborist Report

2323 - 2391 Moorpark Ave.
San Jose, CA

Introduction and Overview

The True Life Companies (TTLC) is preparing plans for redevelopment of several properties located on Moorpark Ave. in San Jose, CA. Current site use consists of residences and other structures, parking, and associated landscape features. TTLC requested that HortScience | Bartlett Consulting (Divisions of The F.A. Bartlett Tree Expert Company) prepare an assessment of trees currently located on the site. This report provides the following information:

1. An assessment of each tree's health, structure, suitability for preservation and protected status within and adjacent to the proposed project area.
2. A preliminary evaluation of impacts to trees based on plans provided by TTLC.
3. Preliminary guidelines for tree preservation throughout the planned demolition and construction phases of the project.

Assessment Methods

Trees were assessed on February 21, 2020. The survey included trees six feet or taller that may be affected by the proposed development, as required by the City of San Jose. Each tree is described in the attached ***Tree Assessment Form*** and its approximate location plotted in the ***Tree Assessment Plan*** located in the **Attachments**.

Off-site trees with canopies extending over the subject site were viewed from the subject property. Access to some trees was limited due to locked gates and/or fences. Trees that could not be accessed were assigned a tree number; in some cases, a metal tag was attached to an adjacent fence. Such trees are noted in the ***Tree Assessment Form***.

All trees were visually inspected from the ground; the assessment procedure consisted of the following steps:

1. Identifying the tree as to species.
2. Tagging each tree with an identifying number and recording its location on a map.
3. Measuring the trunk diameter at a point at 4.5 feet above the ground.
4. Evaluating the health and structural condition using a scale of 1 – 5:
   - ***5*** - A healthy, vigorous tree, reasonably free of signs and symptoms of disease, with good structure and form typical of the species.
   - ***4*** - Tree with slight decline in vigor, small amount of twig dieback, minor structural defects that could be corrected.
   - ***3*** - Tree with moderate vigor, moderate twig and small branch dieback, thinning of crown, poor leaf color, moderate structural defects that might be mitigated with regular care.
   - ***2*** - Tree in decline, epicormic growth, extensive dieback of medium to large branches, significant structural defects that cannot be abated.
   - ***1*** - Tree in severe decline, dieback of scaffold branches and/or trunk; most of foliage from epicormics; extensive structural defects that cannot be abated.
5. Rating the suitability for preservation as "high", "moderate" or "low". Suitability for preservation considers the health, age and structural condition of the tree, and its potential to remain an asset to the site for years to come.
   - ***High***: Trees with good health and structural stability that have the potential for longevity at the site.

Moderate: Trees with somewhat declining health and/or structural defects than can be abated with treatment. The tree will require more intense management and monitoring, and may have shorter life span than those in 'high' category.

Low: Tree in poor health or with significant structural defects that cannot be mitigated. Tree is expected to continue to decline, regardless of treatment. The species or individual may have characteristics that are undesirable for landscapes, and generally are unsuited for use areas.

Description of Trees

Fifty-five (55) trees were assessed, representing 22 species (Table 1). Most trees appeared to have been planted, while the remainder appeared to have arisen from seed. Species present were typical of landscape plants used in the San Jose area. Orchard species included walnut, avocado, fig and apple. Coast live oak is native to the San Jose area and it is likely trees of this species were indigenous to the site. Descriptions of each tree can be found in the ***Tree Assessment*** and approximate locations are shown on the ***Tree Assessment Plan*** (see Exhibits).

Table 1. Species present and tree condition.
2323 - 2391 Moorpark Ave. San Jose, CA.

Common Name	**Scientific Name**	**Condition**			**Total**
		Poor (1-2)	Fair (3)	Good (4-5)	
African fern-pine	*Afrocarpus falcatus*	-	3	-	**3**
Tree of heaven	*Ailanthus altissima*	3	1	-	**4**
Silk tree	*Albizia julibrissin*	-	1	-	**1**
Incense cedar	*Calocedrus decurrens*	-	1	-	**1**
Fig	*Ficus carica*	-	1	-	**1**
California black walnut	*Juglans hindsii*	2	1	-	**3**
English walnut	*Juglans regia*	-	1	-	**1**
Hollywood juniper	*Juniperus chinensis* 'Kaizuka'	-	1	-	**1**
Crape myrtle	*Lagerstroemia indica*	1	1	-	**2**
Glossy privet	*Ligustrum lucidum*	5	3	1	**9**
Apple	*Malus domestica*	1	-	-	**1**
Mulberry	*Morus* sp.	1	-	-	**1**
Paradox walnut	*Juglans x paradox*	1	-	-	**1**
Olive	*Olea europaea*	1	-	-	**1**
Avocado	*Persea americana*	-	2	-	**2**
Victorian box	*Pittosporus undulatum*	1	-	-	**1**
Lombardy poplar	*Populus nigra* 'Italica'	1	-	-	**1**
Evergreen pear	*Pyrus kawakamii*	1	-	-	**1**
Coast live oak	*Quercus agrifolia*	1	2	1	**4**
Holly oak	*Quercus ilex*	-	1	1	**2**
Italian buckthorn	*Rhamnus alaternus*	2	-	2	**4**
Coast redwood	*Sequoia sempervirens*	-	-	3	**3**
Mexican fan palm	*Washingtonia robusta*	-	1	6	**7**
Total		**21**	**20**	**14**	**55**

Glossy privet was the most frequently occurring species with nine trees. These small flowering trees were present on several parcels (Photo 1). Privet #34 was a relatively large, mature tree. It is likely that other privets arose as seedlings from this plant. Most privets were found along fences where seed would be dropped by birds.

Trunk diameters ranged from 4- to 16-inches. As is typical of the species, most trees had more than one stem that arose close the ground. Overall, tree condition ranged from poor (five trees) to fair (three trees) with tree #6 in good condition. Trees in poor condition had been topped and/or sheared. Others were crowded.

Seven Mexican fan palms were present. Palm #29 was mature in development with 50-feet of clear trunk (Photo 2). Around its base several other palms had naturally regenerated including trees #26 (5-feet of clear trunk), #28 (7-feet) and #30 (5-feet). Palm #4 was located on Central Way and had 16-feet of clear trunk. All palms were in good condition with the exception of #29, which was in excellent condition.

Photo 1, top right. Looking south at glossy privet #41.

Photo 2, middle right. Looking west at Mexican fan palm #29. Palms #26, 28 and 30 were located below it.

Photo 3, bottom right. Looking at the west property line with buckthorn #45 on the left and coast redwood #46 on the right.

Four Italian buckthorns were present. Buckthorns #4, 7 and 9 were rounded shrubs along fences. Tree #7 was in good condition, while #39 and 40 were in poor condition. Buckthorn #45 had a canopy extended over the property line west of the subject property (Photo 3).

Coast redwoods #37 and 39 were semi-mature in development (16- and 22-inches) and in good condition (Photo 3). The trees grew close together resulting in one-sided crowns. Coast redwood #46 was located off-site to the northwest of the subject property. It had two trunks (24- and 22-inches) and was in good condition.

Fern pines #17, 18, and 19 formed a row adjacent to one of the residences. Trees were

semi-mature in development and their condition was fair. All three plants had been topped and sheared, resulting in a box hedge form.

None of the remaining 18 species was represented by more than four trees. Most notable tree(s) within this group were:

- Avocado #23 was a small tree. Avocado #43 was a mature tree with several trunks and a spreading, rangy form. Both were in fair condition.
- Apple #35 was a small tree in poor condition.
- California black walnuts #2, 8 and 48 arose as stump sprouts. Tree #2 was in fair condition, while #8 and 48 were in poor condition due to crowded growing conditions.
- California incense cedar #42 was a large, mature tree with trunks measuring 31 and 20-inches (Photo 4). It was in fair condition with scaffold limbs that swept upright. The canopy was open.
- Crape myrtles #20 and 36 were small trees that had been topped numerous times.
- English walnut #1 was located near Central Way. Its several small stems arose from a stump. Tree vigor was good, but overall condition was fair.
- Evergreen pear #25 was 10-inches in diameter, mature in development, and in poor condition.
- Fig #21 was a small, multi-stem tree that had been reduced to the size of a shrub.
- Holly oak #14 was 8-inches in diameter and grew adjacent to a fence. It was in good condition. Holly oak #11 had several stems that arose at the base.
- Mulberry #10 was 26-inches in diameter and located off Central Way. Condition was poor due to extensive decay in the trunk and branches (Photo 5). The tree had been topped many times.

Photo 4. Looking north at incense cedar #42.

Photo 5. The main trunk of mulberry #10 was extensively decayed.

- Four coast live oaks were evaluated. Coast live oak #44 was located off-site on the west side of the project area (Photo 6). Trunk diameter was 40-inches and condition was good. The crown extended over the property line. The remaining trees were….

Photo 6. Looking north along west property line. Coast live oak #44 was located off-site but its canopy extended into the project area.

- Olive #27 was near Moorpark Avenue. Three stems arose at ground level. The tree had been topped and as a result, its canopy consisted only of sprouts. Decay conks were present at the base.
- Paradox walnut #24 was located off-site east of the subject property (Photo 7). This large, mature tree had been topped many times. All branches extending over the property line had been removed. Tree condition was poor.
- Silk tree #47 was a small tree with two trunks of 4-inches each. Condition was fair.
- Four trees of heaven were assessed. Trees #3, 52 and 56 were in poor condition. Tree #53 was in fair condition. Tree of heaven #3 was located on Central Way. It had approximately 16 stems that arose from a stump. All were 3-inches or less in diameter.
- Victorian box #32 was a large, multi-stem shrub in poor condition.

The City of San Jose defines Ordinance Sized Tree " *any live or dead woody perennial plant…having a main stem or trunk 38 inches or more in circumference (12 inches diameter) at a height measured 4.5 feet above natural grade slope"* (SJMC 13.32.20.I. Updated February 2018). Twenty-six (26) trees met this criterion. Ordinance Sized Trees are identified on the ***Tree Assessment Form.***

The City of San Jose also has a list of designated Heritage Trees. No Heritage trees were present at this site.

Photo 7. Off-site paradox walnut #24 had been topped and was in poor condition.

Suitability for Preservation

Trees that are preserved on development sites must be carefully selected to make sure that they may survive development impacts, adapt to a new environment and perform well in the landscape. Our goal is to identify trees that have the potential for long-term health, structural stability and longevity. Evaluation of suitability for preservation considers several factors:

- **Tree health**
  Healthy, vigorous trees are better able to tolerate impacts such as root injury, demolition of existing structures, changes in soil grade and moisture, and soil compaction than are non-vigorous trees. Several trees at the site were in poor health. Most notable was olive #27, which had conks at the base.

- **Structural integrity**
  Trees with significant amounts of wood decay and other structural defects that cannot be corrected are likely to fail. Such trees should not be preserved in areas where damage to people or property is likely. Several trees had poor structure that would warrant removal regardless of development such as mulberry #10, Victorian box #32 and glossy privet #34.

- **Species response**
  There is a wide variation in the response of individual species to construction impacts and changes in the environment. For example, coast live oak and coast redwood are tolerant of construction impacts while species such as California black walnut, English walnut, and fern pine are intolerant.

- **Tree age and longevity**
  Old trees, while having significant emotional and aesthetic appeal, have limited physiological capacity to adjust to an altered environment. Young trees are better able to generate new tissue and respond to change.

- **Species invasiveness**
  Species which spread across a site and displace desired vegetation are not always appropriate for retention. This is particularly true when indigenous species are displaced. The California Invasive Plant Inventory Database (www.cal-ipc.org) lists species identified as having being invasive. San Jose is part of the Central West Floristic Province. Fig, olive, glossy privet, Victorian box, tree of heaven, buckthorn, and Mexican fan palm are listed as being invasive.

Each tree was rated for suitability for preservation based upon its age, health, structural condition and ability to safely coexist within a development environment (Table 2).

Table 2. Tree suitability for preservation.
2323 - 2391 Moorpark Ave. San Jose CA.

High	Trees with good health and structural stability that have the potential for longevity at the site. Mexican fan palm #29, coast redwoods #37,39 and 46 and coast live oak #44 were rated as having high suitability for preservation.
Moderate	Trees in fair health and/or possessing structural defects that may be abated with treatment. Trees in this category require more intense management and monitoring, and may have shorter life-spans than those in the "high" category. Ten (10) trees were rated as having moderate suitability for preservation.
Low	Trees in poor health or possessing significant defects in structure that cannot be abated with treatment. These trees can be expected to decline regardless of management. The species or individual tree may possess either characteristics that are undesirable in landscape settings or be unsuited for use areas. Forty (40) trees were rated as having poor suitability for preservation including, eight glossy privets and three fern pine.

We consider trees with high suitability for preservation to be the best candidates for preservation. We do not normally recommend retention of trees with low suitability for preservation in areas where people or property will be present. Retention of trees with moderate suitability for preservation depends upon the intensity of proposed site changes.

Evaluation of Impacts and Recommendations for Action

Appropriate tree retention requires a practical match between the location and intensity of construction activities and the quality and health of trees. The **Tree Assessment** was the reference point for tree condition and quality. Potential impacts from the proposed project were assessed using the Preliminary Grading and Drainage plan to prepared by Wood Rodgers dated April 6, 2020. Plans are in the preliminary stages of development. When finalized plans are developed the Project Arborist can prepare more detailed **Tree Preservation Guidelines**.

The site plan depicted the demolition of all existing structures and the complete re-development of the site. Several new residential units will be constructed. The project would be accessed by a new entry off Central Way. Given the intensity of proposed development, impacts to trees on-site will be severe. Based on my evaluation of the plan on-site Mexican fan palms #28, 29, 30 and 55 can be preserved. As can off-site trees Paradox walnut #24, coast live oak #44, buckthorn #45, and coast redwood #46. All four off-site trees were ordinance-size. Preservation of trees is predicated on adherence to the tree preservation guidelines (page 12).

Tree Mitigation

The City of San Jose requires mitigation for trees removed on development sites. The species and exact number of trees to be planted on the site will be determined in consultation with the City Arborist and the Department of Planning, Building, and Code Enforcement.

All trees that are to be removed shall be replaced at the following ratios:

Circumference of Tree to be Removed (measured at 4.5 feet above ground)	Type of Tree to be Removed			Minimum Size of Each Replacement Tree
	Native	Non-Native	Orchard	
38 inches or greater	5:1	4:1	3:1	15-gallon
19 up to 38 inches inches	3:1	2:1	none	15-gallon
less than 19 inches	1:1	1:1	none	15-gallon

x:x = tree replacement to tree loss ratio
Note: Trees greater than 38-inch circumference shall not be removed unless a Tree Removal Permit or equivalent, has been approved for the removal of such tree.
For Multi-Family Residential, Commercial, and Industrial properties, a permit is required for removal of trees of any size.
A 38-inch in circumference equals 12.1 inches in diameter
A 24-inch box tree can be used in lieu of two 15-gallon trees
Single-Family and Two-dwelling properties may be mitigated at a 1:1 ratio

Alternative Mitigation Measures

In the event the project site does not have sufficient area to accommodate the required tree mitigation, one or more of the following measures may be implemented, to the satisfaction of the City's Environmental Principal Planner, at the development permit stage:

- The size of a 15-gallon replacement tree can be increased to 24-inch box and count as two replacement trees.
- An alternative site(s) will be identified for additional tree planting. Alternative sites may include local parks or schools or installation of trees on adjacent properties for screening.
- A donation of $755 per mitigation tree to Our City Forest or San Jose Beautiful for in-lieu off-site tree planting in the community. These funds will be used for tree planting and maintenance of planted trees for approximately three years. A donation receipt for off-site tree planting will be provided to the Planning Project Manager prior to issuance of a development permit.

Forty-seven (47) trees were within the project limits are proposed for removal as part of development. These trees were categorized by type (native, non-native, orchard) and by circumference (Table 3). Mitigation requirements, based on the matrix above and the requirement to add diameters of multiple added together, require that 137 trees be planted.

Table 3. Estimated tree mitigation. 2323 - 2391 Moorpark Ave. San Jose CA.

Tree No.	Species	Trunk Diameter (in.)	Circumference	Ordinance Size?	Disposition	Provenance	Replacement Trees
1	English walnut	6,5,5,4,3	72	Yes	Remove	Non-native	4
2	California black walnut	6,5,5	50	Yes	Remove	Native	5
3	Tree of heaven	4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4	75	Yes	Remove	Non-native	4
4	Mexican fan palm	24	75	Yes	Remove	Non-native	4
5	Glossy privet	6	19	No	Remove	Non-native	2
6	Glossy privet	10	31	No	Remove	Non-native	2
7	Italian buckthorn	4,2,1,1,1,1	31	No	Remove	Non-native	2
8	California black walnut	6,6,6,5	72	Yes	Remove	Native	5
9	Italian buckthorn	4,2	19	No	Remove	Non-native	2
10	Mulberry	26	82	Yes	Remove	Orchard	3
11	Holly oak	6.6,5,5,4	65	Yes	Remove	Non-native	4
12	Glossy privet	3,3,3	28	No	Remove	Non-native	2
13	Glossy privet	4	13	No	Remove	Non-native	1
14	Holly oak	8	25	No	Remove	Non-native	2
15	Coast live oak	9	28	No	Remove	Native	3

Tree No.	Species	Trunk Diameter (in.)	Circumference	Ordinance Size?	Disposition	Provenance	Replacement Trees
17	African fern-pine	9	28	No	Remove	Non-native	2
18	African fern-pine	10	31	No	Remove	Non-native	2
19	African fern-pine	6,5	35	No	Remove	Non-native	2
20	Crape myrtle	6	19	No	Remove	Non-native	2
21	Fig	4,4,4	38	Yes	Remove	Non-native	4
22	Glossy privet	4	13	No	Remove	Non-native	1
23	Avocado	5,4	28	No	Remove	Orchard	0
25	Evergreen pear	10	31	No	Remove	Non-native	2
26	Mexican fan palm	15,6	66	Yes	Remove	Non-native	4
27	Olive	13,12,11	113	Yes	Remove	Orchard	3
31	Glossy privet	7,6,5,3	66	Yes	Remove	Non-native	4
32	Victorian box	6,6,6,3	66	Yes	Remove	Non-native	4
33	Glossy privet	7,7,6	63	Yes	Remove	Non-native	4
34	Glossy privet	16,15,12,12,9	201	Yes	Remove	Non-native	4
35	Apple	5,3,2	31	No	Remove	Orchard	0
36	Crape myrtle	7,3	31	No	Remove	Non-native	2
37	Coast redwood	16	50	Yes	Remove	Native	5
38	Hollywood juniper	13,10,6	91	Yes	Remove	Non-native	4

Tree No.	Species	Trunk Diameter (in.)	Circumference	Ordinance Size?	Disposition	Provenance	Replacement Trees
39	Coast redwood	22	69	Yes	Remove	Native	5
40	Italian buckthorn	9	28	No	Remove	Non-native	2
41	Glossy privet	9,6	47	Yes	Remove	Non-native	4
42	Incense cedar	32,20	163	Yes	Remove	Native	5
43	Avocado	12,12,9,7	126	Yes	Remove	Orchard	3
47	Silk tree	4,4	25	No	Remove	Non-native	2
48	California black walnut	2,2,2,2,2,2,2,2,2,2,2,2,2	38	Yes	Remove	Native	5
49	Lombardy poplar	3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3	57	Yes	Remove	Non-native	4
50	Coast live oak	3,1,2,1,1	25	No	Remove	Native	3
51	Coast live oak	2,1	9	No	Remove	Native	1
52	Tree of heaven	3,3,3,3,2,1	47	Yes	Remove	Non-native	4
53	Tree of heaven	4	13	No	Remove	Non-native	1
54	Mexican fan palm	9	28	No	Remove	Non-native	2
56	Tree of heaven	2,2,2,2,2	31	No	Remove	Non-native	2
						Total	**137**

Tree Preservation Guidelines

The following are recommendations for design and construction phases that will assist in successful tree preservation.

Design recommendations

1. Establish the limit of work as the property line. Locate the property line in the field. The property line and the project security fence will define the **TREE PROTECTION ZONE** for off-site trees to be preserved.

2. Locate the vertical and horizontal elevation of trees to be preserved (#24, 44, 45, 46). Include tree locations and tag numbers on all plans.

3. Allow the Consulting Arborist to review all future project submittals including grading, utility, drainage, irrigation, and landscape plans.

4. Route underground services including utilities, sub-drains, water or sewer around the **TREE PROTECTION ZONE**. Where encroachment cannot be avoided, special construction techniques such as hand digging or tunneling under roots shall be employed where necessary to minimize root injury.

5. Use only herbicides safe for use around trees and labeled for that use, even below pavement.

6. Design irrigation systems so that no trenching will occur within the **TREE PROTECTION ZONE**.

Pre-construction and demolition treatments and recommendations

1. Demolition of existing structures and improvements must avoid any injury or damage to off-site trees to be preserved.

2. Establish a **TREE PROTECTION ZONE** as the property line. No grading, excavation, construction or storage of materials shall occur beyond the property line.

3. Install protection at the property line. Such protection will serve as tree protection fencing and define the **TREE PROTECTION ZONE.**

4. Trees #28, 29, 30, 44, 45, 46 will likely require pruning to provide clearance within the project limits. All pruning is to be performed by an ISA Certified Arborist or Certified Tree Worker and shall adhere to the latest editions of the ANSI Z133 and A300 standards as well as the ISA Best Management Practices for Tree Pruning. Pruning contractor shall have the C25/D61 license specification.

Tree protection during construction

1. Any grading, construction, demolition or other work that is expected to encounter tree roots should be monitored by the Consulting Arborist.

2. If injury should occur to any tree during construction, it should be evaluated as soon as possible by the Consulting Arborist so that appropriate treatments can be applied.

3. Fences should be erected to protect trees to be preserved. Fences are to remain until all site work has been completed. Fences may not be relocated or removed without permission of the Project Superintendent.

4. Any additional tree pruning needed for clearance during construction must be performed by a qualified arborist and not by construction personnel.

5. All trees shall be irrigated on a schedule to be determined by the Consulting Arborist. Each irrigation shall wet the soil within the **TREE PROTECTION ZONE** to a depth of 30-inches.

6. Any roots damaged during grading or construction shall be exposed to sound.

Maintenance of impacted trees
Prior to occupation of the homes, the stand of blue gum trees should be inspected to identify and treat conditions that are likely to lead to failure, and pruning or other treatments that are needed to reduce the likelihood of failure. The stand should be monitored and inspected annually and after major storms to identify conditions requiring treatment to manage risk associated with tree failure.

Preserved trees will experience a physical environment different from that pre-development. As a result, tree health and structural stability should be monitored. Occasional pruning, fertilization, mulch, pest management, replanting and irrigation may be required. In addition, provisions for monitoring both tree health and structural stability following construction must be made a priority.
Our procedures included assessing trees for observable defects in structure. This is not to say that trees without significant defects will not fail. Failure of apparently defect-free trees does occur, especially during storm events. Wind forces, for example, can exceed the strength of defect-free wood causing branches and trunks to break. Wind forces coupled with rain can saturate soils, reducing their ability to hold roots, and blow over defect-free trees. Although we cannot predict all failures, identifying those trees with observable defects is a critical component of enhancing public safety.

Furthermore, trees change over time. Our inspections represent the condition of the tree at the time of inspection. As trees age, the likelihood of failure of branches or entire trees increases. Annual tree inspections are recommended to identify changes to tree health and structure. In addition, trees should be inspected after storms of unusual severity to evaluate damage and structural changes. Initiating these inspections is the responsibility of the client and/or tree owner.

If you have any questions regarding my observations or recommendations, please contact me.

HortScience | Bartlett Consulting

Darya Barar, Consulting Urban Forester
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Registered Consulting Arborist #693
ISA Tree Risk Assessment Qualified
Tree Appraisal Qualified

Attachments

Tree Assessment Plan

Tree Assessment

Tree Assessment Map

2323-2391 Moorpark Avenue
San Jose, CA

Prepared for:
The True Life Companies
San Ramon, CA

February 2020

No Scale

Notes:

Base map provided by:
Google Earth

Numbered tree locations are approximate.

HORT SCIENCE
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Tree Assessment

2323 - 2391 Moorpark Ave.
San Jose, CA
March 2, 2020

HORT SCIENCE
BARTLETT CONSULTING

Tree No.	Species	Trunk Diameter (in.)	Protected Tree?	Condition 1=poor 5=excellent	Suitability for Preservation	Comments
1	English walnut	6,5,5,4,3	Yes	3	Low	Stump sprouts; multiple attachments @ base.
2	California black	6,5,5	Yes	3	Low	Multiple attachments @ 1'; one-sided to S.
3	Tree of heaven	16@4	Yes	2	Low	Multiple attachments @ base; mass of vertical & leaning stems.
4	Mexican fan palm	24	Yes	4	Moderate	Base pillowed over foundation; 16' clear trunk.
5	Glossy privet	6	No	3	Low	Crowded by adj; shrubs; high crown.
6	Glossy privet	10	No	4	Moderate	Base against fence; good tree.
7	Italian buckthorn	4,2,1,1,1,1	No	4	Moderate	Multiple attachments @ base; big shrub.
8	California black	6,6,6,5	Yes	2	Low	Multiple attachments @ base; emerges thru large buckthorn
9	Italian buckthorn	4,2	No	2	Low	Suppressed.
10	Mulberry	26	Yes	1	Low	Poor form & structure; huge cavity where multiple attachments
11	Holly oak	6.6,5,5,4	Yes	3	Low	Base against fence; multiple attachments @ base; narrow form.
12	Glossy privet	3,3,3	No	2	Low	Base against fence; codominant trunks @ base & above;
13	Glossy privet	4	No	2	Low	Suppressed; base against fence.
14	Holly oak	8	No	4	Moderate	Base against fence; okay tree; branches to ground; recently
15	Coast live oak	9	No	3	Moderate	Crook @ base; rangy form; multiple attachments at 6'.
17	African fern-pine	9	No	3	Low	Topped & sheared into cube.
18	African fern-pine	10	No	3	Low	Topped & sheared into cube.
19	African fern-pine	6,5	No	3	Low	Topped & sheared into cube.
20	Crape myrtle	6	No	2	Low	Topped several times; resprouted.
21	Fig	4,4,4	No	3	Low	Multiple attachments @ base; asymmetric form.
22	Glossy privet	4	No	3	Low	Topped & sheared into cube; multiple attachments at 4'.

Tree Assessment

2323 - 2391 Moorpark Ave.
San Jose, CA
March 2, 2020

HORT SCIENCE
BARTLETT CONSULTING

Tree No.	Species	Trunk Diameter (in.)	Protected Tree?	Condition 1=poor 5=excellent	Suitability for Preservation	Comments
23	Avocado	5,4	No	3	Low	Tag on fence; can't access; codominant trunks @ base; spread apart; parched foliage.
24	Paradox walnut	48	Yes	2	Low	Tag on fence; off-site; 1' behind wood fence; poor form &
25	Evergreen pear	10	No	2	Low	Poor form & structure; flat form to E./W.; topped.
26	Mexican fan palm	15,6	Yes	4	Moderate	5' clear trunk; crowded; codominant at base.
27	Olive	13,12,11	Yes	1	Low	Multiple attachments @ base; topped; just sprouts; conks along trunk.
28	Mexican fan palm	18	Yes	4	Moderate	7' clear trunk; crowded.
29	Mexican fan palm	26	Yes	5	High	50' clear trunk; crowded @ base.
30	Mexican fan palm	18	Yes	4	Moderate	5' clear trunk; crowded.
31	Glossy privet	7,6,5,3	Yes	2	Low	Topped; covered by ivy; multiple attachments @ base; twig dieback.
32	Victorian box	6,6,6,3	Yes	1	Low	Poor form & structure; multiple attachments @ 2'; crown lifted, then topped; extensive decay.
33	Glossy privet	7,7,6	Yes	2	Low	Tag on fence; can't access; multiple attachments @ base; topped; big shrub.
34	Glossy privet	16,15,12,12,9	Yes	1	Low	No tag; can't access; multiple attachments @ base; stems spread widely apart; extensive dieback.
35	Apple	5,3,2	No	2	Low	Poor form & structure; flat form to E./W.; topped.
36	Crape myrtle	7,3	No	3	Low	No tag; in courtyard; can't access; topped several times.
37	Coast redwood	16	Yes	4	High	No tag; in courtyard; can't access; one-sided to N.
38	Hollywood juniper	13,10,6	Yes	3	Low	Codominant trunks @ base & 2'; rangy form; topped; growing in
39	Coast redwood	22	Yes	4	High	Tag on fence; can't access; one-sided to S.

Tree Assessment

2323 - 2391 Moorpark Ave.
San Jose, CA
March 2, 2020

HORT SCIENCE
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Tree No.	Species	Trunk Diameter (in.)	Protected Tree?	Condition 1=poor 5=excellent	Suitability for Preservation	Comments
40	Italian buckthorn	9	No	2	Low	Tag on fence; can't access; base against fence; big shrub with very thin canopy.
41	Glossy privet	9,6	Yes	3	Low	Tag on fence; can't access; base against fence; crowded by adj; bldg.; & fence; okay form.
42	Incense cedar	32,20	Yes	3	Low	Codominant trunks @ 4' & above; mostly upright; very rangy form; heavy lateral limb.
43	Avocado	12,12,9,7	Yes	3	Low	Multiple attachments @ base; stems separated; very rangy form;
44	Coast live oak	40	Yes	4	High	Tag on fence; off-site; can't access; base 10' from fence; canopy extends over property line; codominant trunks @ 5'; multiple
45	Italian buckthorn	12	Yes	4	Moderate	Off-site; no tag; can't access; big shrub.
46	Coast redwood	24,22	Yes	4	High	Off-site; no tag; can't access; base close to property line; canopy
47	Silk tree	4,4	No	3	Low	Codominant trunks @ base; twist around one another; otherwise
48	California black	15@2	No	2	Low	15 stems 2" and smaller; stump sprouts.
49	Lombardy poplar	25@3	No	2	Low	25 stems 3" and smaller; stump sprouts.
50	Coast live oak	3,1,2,1,1	No	3	Low	Stump sprouts; multiple attachments @ base.
51	Coast live oak	2,1	No	2	Low	Stump sprouts; multiple attachments @ base; poor form and
52	Tree of heaven	3,3,3,3,2,1	No	2	Low	Stump sprouts; multiple attachments @ base.
53	Tree of heaven	4	No	3	Low	Growing in narrow area surrounded by fencing.
54	Mexican fan palm	9	No	4	Moderate	5' feet clear trunk.
55	Mexican fan palm	8	No	3	Low	Growing against power pole.
56	Tree of heaven	2,2,2,2,2	No	2	Low	Stump sprouts; multiple attachments @ base.

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