

APPENDIX D

Biological Resources Memorandum

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File:	185704321	Date:	November 21, 2018

Reference: Biological Resources Memorandum for Caritas Village Project

1. INTRODUCTION

On behalf of City of Santa Rosa, Stantec Consulting Services Inc. (Stantec) has prepared this biological resources memorandum (memo) for the Caritas Village Project (project), which is located in the city of Santa Rosa in Sonoma County, California and is bordered by A Street, Morgan Street, 6th Street, and 7th Street. The project is located within the *Santa Rosa, California* U.S. Geological Survey 7.5-minute topographic quadrangle in Township 7N, Range 8W, Section 23 (Figure 1).

This memo evaluates the potential for sensitive biological resources (e.g., special-status species, rare natural habitats, aquatic resources) to occur within the study area (Figure 2), which covers the entire 2.78-acre project site and encompasses all project components currently known at this time. The purpose of this memo is to support the preparation of the project's Draft Environmental Impact Report by providing information pertaining to biological resources within the study area.

The following sections describe the project, methods used to evaluate the potential for special-status species to occur, existing biological conditions, and the results of the reconnaissance-level biological field survey. Attachment A (Addendum Arborist Report), provides a discussion and analysis on tree resources present in the study area.

2. PROJECT OVERVIEW

The project involves the redevelopment and construction of a comprehensive family and homeless support services facility (Caritas Center) to be operated by Catholic Charities and an affordable housing development (Caritas Homes) to be operated by Burbank Housing. The Caritas Center would consolidate the existing onsite Family Support Center and Homeless Services Center into a single building that would provide an emergency shelter, day center, transitional housing, wrap-around services, health services, and administrative offices. Caritas Homes would provide two permanent housing developments for 128 permanent affordable housing units. The project requires the following entitlements: General Plan Amendment, Specific Plan Amendment, Rezoning, Parcel Map, Conditional Use Permit, Housing Allocation Plan, Landmark Alteration Permit(s), Design Review, Parking Reduction for Caritas Center, a Tree Removal Permit, and a Request for Reserve A Allotments (Figure 3).

3. METHODS

The analysis presented in this memo includes a review of existing information about sensitive biological resources with potential to occur in the study area. Following the review of existing information, a field survey was conducted to determine whether the sensitive biological resources identified during the review were present in the study area or if they were likely to be present given the habitat conditions present.

Definitions

Special-Status Species

For the purpose of this evaluation, special-status species include those that are (1) listed as threatened or endangered under the California Endangered Species Act (CESA) or Endangered Species Act (ESA); (2) proposed for federal listing as threatened or endangered; (3) state or federal candidate species; (4) designated as rare or identified as a species of special concern or fully protected by the California Department of Fish and Wildlife (CDFW); and, (5) plant species with California Rare Plant Ranks (CRPR) of 1A, 1B, 2A, or 2B.

Potential to Occur

The potential for special-status species to occur within the study area were classified under one of five categories as described below. Only those special-status species with a potential of “Moderate” or greater to occur in the study area are evaluated in this report.

- **Present:** The species is present or has been recently observed in the study area during biological survey(s).
- **High:** The species has been recently (i.e., within the last 5 years) documented in the study area and potential habitat for the species is present.
- **Moderate:** The project is located within the range of the species and/or there are nearby documented occurrences, and potential habitat for the species exists in the study area.
- **Low:** The project is located within the range of the species and low-quality habitat is present in the study area; or, the project is in the range of the species and potential habitat exists immediately adjacent to the study area.
- **Absent:** The study area is located outside of the species range and/or potential habitat to support the species is not present in the study area.

Literature and Database Review

Special-status plant and animal species and sensitive habitats that may occur in the study area were determined, in part, by reviewing natural resource agency databases, literature, and other relevant sources. The following information sources were reviewed:

- USGS *Santa Rosa, California* 7.5-minute topographic quadrangle;
- Aerial photographs of the study area and vicinity;
- United States Fish and Wildlife Service (USFWS) list of endangered and threatened species that may occur in the vicinity of the project (USFWS 2018a) (Attachment B);
- The CDFW California Natural Diversity Database (CNDDDB) plant and animal records for *Santa Rosa, California* and eight surrounding 7.5-minute quadrangles (CDFW 2018a) (Attachment C);
- The California Native Plant Society (CNPS) online Inventory of Rare and Endangered Plants (California Native Plant Society 2018) records for the *Santa Rosa, California* and eight surrounding quadrangles (Attachment C);
- California Wildlife Habitat Relationships System (CDFW 2014);
- National Wetlands Inventory (USFWS 2018b);

- Other pertinent databases and literature, including the online *Inventory of Rare and Endangered Vascular Plants of California* (California Native Plant Society 2018) and *The Jepson manual: vascular plants of California*, Second Edition (Baldwin et. al. 2012).

A list of special-status species that could occur or are known to occur in the study area and vicinity was developed based on background research. The list was further refined based on the field survey to identify those species that have potential to occur in the study area.

Studies Conducted

Stantec biologists Katelyn Peterson and Leticia Morris conducted a reconnaissance-level biological survey on November 20, 2018. The purpose of the biological survey was to characterize habitats present in the study area, assess the potential for special-status species to occur, identify aquatic resources that may be subject to regulatory agency jurisdiction, and record data on the trees present to support the preparation of an addendum arborist report (Attachment A) and a tree removal permit. To better focus the field survey efforts on those special-status species that may occur in the study area, a target list of potentially occurring species was developed during the literature and database review process, as described above. Photographs documenting the conditions present during the surveys are provided in Attachment D.

4. SURVEY RESULTS AND BIOLOGICAL RESOURCES

Habitats and Vegetation Communities

The study area is located in a highly disturbed urban setting that includes paved parking lots, a vacant lot, a community garden, and existing buildings surrounded by residential streets. The study area lacks any form of a natural habitat corridor (e.g., riparian areas along streams, rivers, or other natural features) which would allow for wide ranging plants and animals from other habitats to ingress/egress to the study area.

Vegetation communities were classified based on the descriptions provided in *A Manual of California Vegetation* (MCV), 2nd Edition (Sawyer et al. 2009), and *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer 1988) was used when applicable plant series types were not included in the MCV (i.e., barren and urban). Barren and urban habitats were both identified in the study area and are described below. A list of species observed during the site visit can be found in Attachment E.

Barren

Barren habitat occurs as paved roads, buildings, and their associated road shoulders and parking lots. Vegetation is mostly absent (i.e., less than 2 percent total vegetative cover and less than 10 percent cover of tree or shrub layer species) in these locations. Opportunistic grasses and forbs are largely devoid in the study area as landscaped wood chips blanket the ground layer throughout the majority of the landscaped project area. Generally, use of barren habitats by wildlife is limited to species accustomed to frequent anthropogenic disturbances. Rock doves (*Columba livia*) and other small passerines may forage briefly in these barren areas.

Urban

Urban habitat occurs as strips of street trees, landscaped lawns, planted gardens and low-growing ornamental vegetation planted along the buildings throughout the study area. Dominant trees species include flowering pear (*Pyrus calleryana*), glossy privet (*Ligustrum lucidum*), crepe myrtle (*Lagerstroemia indica*), and several other ornamental species. Wildlife species observed within this habitat include ground squirrel (*Otospermophilus* sp.) and mourning dove (*Zenaida macroura*).

Invasive Species

Invasive plants (i.e., noxious weeds) are undesirable, non-native plants that commonly invade disturbed sites. Most species have been introduced from Europe and Asia and are known to degrade native wildlife habitat

and plant communities. When disturbance results in the creation of habitat openings or in the loss of intact native vegetation, invasive plants may colonize the site and spread, often out-competing native species. Once established, they are very difficult to eradicate and could pose a threat to native species.

All non-native plant species were reviewed to determine their status as invasive plants according to the ratings in the California Invasive Plant Inventory produced by California Invasive Plant Council (Cal-IPC) and updated in February of 2017 (Cal-IPC 2006; 2017). Cal-IPC categorizes non-native invasive plants into three categories of overall negative ecological impact in California: High, Moderate, and Limited. Invasive species with a Cal-IPC rating of “Moderate” that were observed in the study area include tree-of-heaven (*Ailanthus altissima*), wild oats (*Avena fatua*), and Mexican fan palm (*Washingtonia robusta*). Species with a Cal-IPC rating of “Limited” that were observed in the study area include New Zealand cabbage tree (*Cordyline australis*), glossy privet, olive (*Olea europaea*). Species on these lists have a high risk of becoming more invasive in the future (Cal-IPC 2017). Given the project is in an urban setting and will involve the construction of new structures and landscaping in place of the existing facilities, it is unlikely that invasive plant species with a Cal-IPC rating will spread or be introduced to the study area as a result of the project.

Rare Natural Communities and Aquatic Resources

In addition to inventorying reported occurrences of special-status species, the CNDDDB serves to inventory locations of rare natural communities. Rare natural communities are those communities that are of highly limited distribution, and may or may not contain rare, threatened, or endangered species. The CNDDDB ranks natural communities according to their rarity and endangerment in California. Habitats are considered “sensitive” if they are identified on the CDFW List of Vegetation Alliances and Associations as being highly imperiled or classified by CDFW in the CNDDDB as natural communities of special concern – Ranks S1 to S3. Other natural communities of concern by the United States Army Corps of Engineers (Corps), Regional Water Quality Control Board (RWQCB), and CDFW include wetlands and other aquatic habitats (e.g., rivers and streams). Based on the database review and field survey no natural communities of special concern or aquatic resources subject to the Corps, RWQCB, or CDFW jurisdiction are present in the study area.

Special-status Species

Regionally occurring special-status species were identified based on a review of pertinent literature, the USFWS species list, CNDDDB, and CNPS database records, and the field survey results. The status of each special-status plant species was verified using the *State and Federally Listed Endangered, Threatened and Rare Plants of California* (CDFW 2018b) and the *Special Vascular Plants, Bryophytes, and Lichens List* (CDFW 2018c). The status for each special-status animal species was verified using the *State and Federally Listed Endangered and Threatened Animals of California* (CDFW 2018d) and the *Special Animals List* (CDFW 2018e). For each species, habitat requirements were assessed and compared to the habitats in the study area and immediate vicinity to determine if potential habitat for the species are present study area. For the purposes of this review, all regionally occurring plant and animal species listed under the ESA and CESA were included in the evaluation regardless of whether the study area provides potential habitat. Non-listed special status species (e.g. CDFW Watch List and California Rare Plant Rank 1, 2, 3, 4 etc.) were evaluated and determined to have no potential to occur in the study area are not included in the table; these species are included in Attachment C. Based on the results of CNDDDB and USFWS queries, 22 special-status plants and 28 special-status animals (e.g., federally and State listed species) were evaluated for potential to occur within the study area and included in Tables 1 and 2 in Attachment F. However, based on the field survey, potential habitat for these special-status species is absent from the study area. Therefore, none of the 50 special-status species have moderate or high potential to occur in the study area.

Nesting Migratory Birds and Raptors

Nesting migratory birds and raptors are protected both at the state and federal levels under Sections 3500-3516 of the California Fish and Game Code and under the Migratory Bird Treaty Act of 1918, respectively.

Sections 3500-3516 protects all game birds, birds of prey, migratory birds, and CDFW fully protected birds from take or possession. Under the Migratory Bird Treaty Act it is unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed under the act, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations.

Based on the field survey, trees, shrubs, and other substrates (e.g., rooftops and storage building) in and near the study area provide potential nesting and foraging habitat for various bird species. Construction activities (e.g., vegetation removal and equipment noise) if scheduled during the avian breeding season (i.e., late February through September, depending on the species) could disturb nesting birds in or adjacent to the study area. Removal of nesting substrates (e.g., vegetation, rooftops, and storage buildings) to prepare the work area would directly affect nesting birds if nests are present. Other construction activities such as staging equipment/materials, grading, excavation, and pipe laying near trees could also disturb nesting birds if they are present in/near the work area. These construction related disturbance could result in the incidental loss of fertile eggs or nestlings, and/or nest abandonment.

5. SUMMARY AND RECOMMENDATIONS

Based on the results of the desktop research and field survey, potential habitat for special-status species and aquatic features subject to the jurisdiction of Corps, RWQCB, and CDFW is absent from the study area; therefore, impacts to these sensitive biological resources are not anticipated as a result of the project. Potential habitat for nesting migratory birds and raptors is present in the study area and could be impacted by project activities. If construction activities cannot be timed to avoid the avian nesting season, the following avoidance and minimization measure is recommended to minimize the potential for the project to impact nesting migratory birds and raptors.

Avoidance and Minimization Measure #1– Migratory Birds and Raptors

If construction activities are to occur during the avian nesting season (February 15 through August 31), a qualified biologist no more than two weeks prior to the start of construction activities begin should conduct a pre-construction nesting bird survey within 500 feet of the study area. The survey buffer may be adjusted at the discretion of the qualified biologist if site conditions, project timing, and/or species observed warrant a larger/smaller survey area. If an active nest is found, the qualified biologist will establish an appropriate no work buffer around the nest, unless a smaller buffer zone is approved by CDFW. Construction within the no work buffer may resume once it is determined by a qualified biologist that the young have left the nest. If a lapse in construction activities of 14 days or more occurs during the nesting season, an additional nesting bird survey is recommended to ensure no nests were established in the area while construction activities were on hold.

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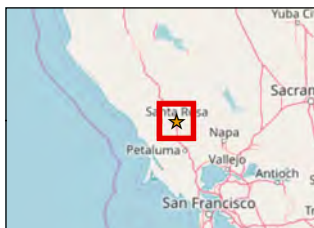
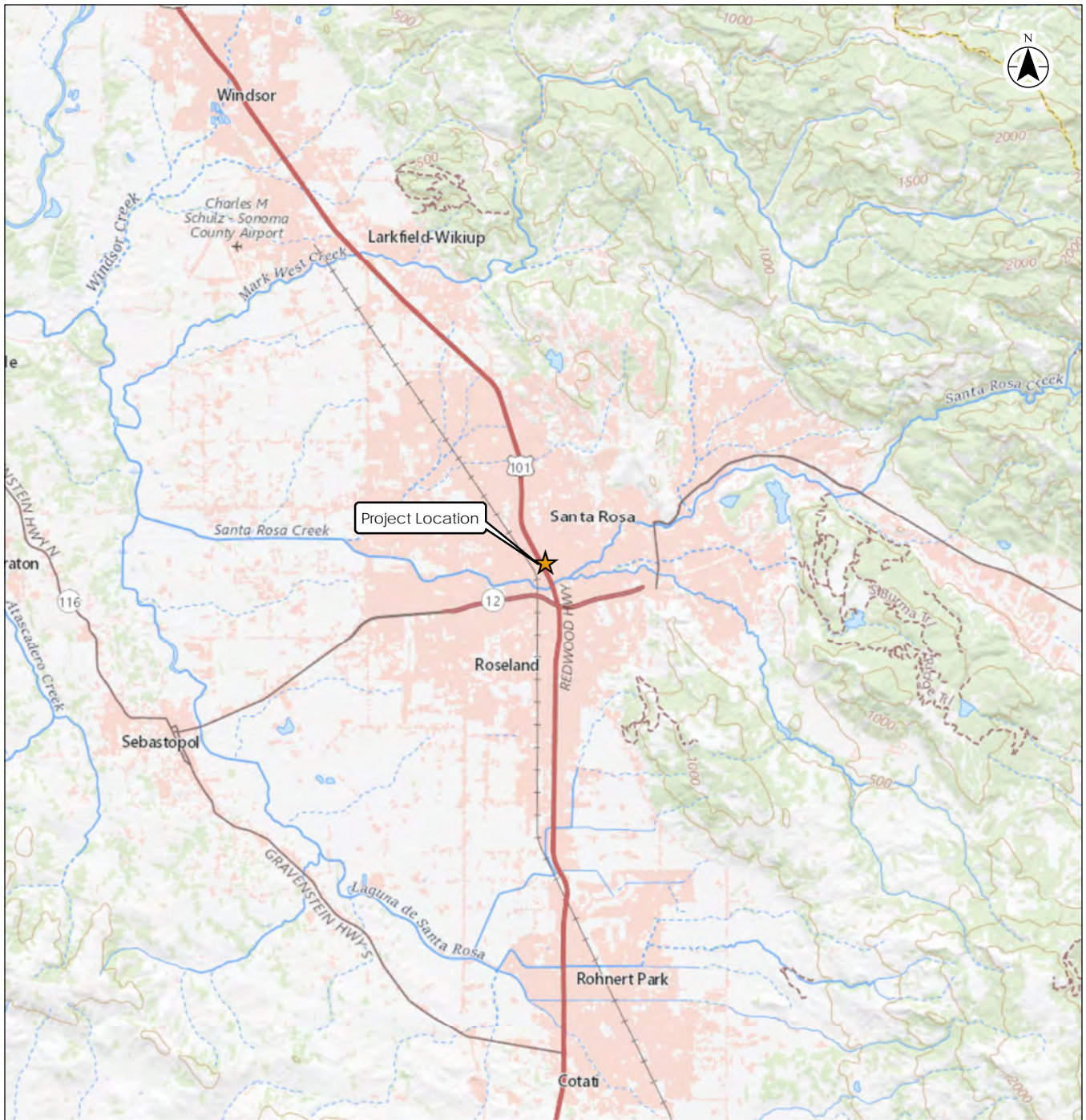
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Figures

Figure 1: Location Map



Legend

★ Project Location

0 1 2 Miles
1:150,000 (at original document size of 8.5x11)



Project Location
T.07N, R.08W Section 23
USGS 7.5-minute Quadrangle
Santa Rosa

Client/Project
City of Santa Rosa
Caritas Village Project

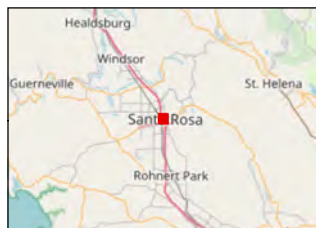
Figure No.
1

Title
Location Map

Notes
1. Coordinate System: NAD 1983 StatePlane California II
FPS 0402 Feet
2. Service Layer Credits: © OpenStreetMap (and)

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Figure 2: Study Area



Legend

Study Area

0 250 500 Feet
1:6,000 (at original document size of 8.5x11)



Project Location
T.07N, R.08W Section 23
USGS 7.5-minute Quadrangle
Santa Rosa

Client/Project
City of Santa Rosa
Caritas Village Project

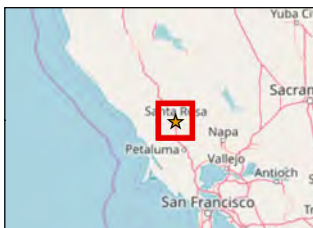
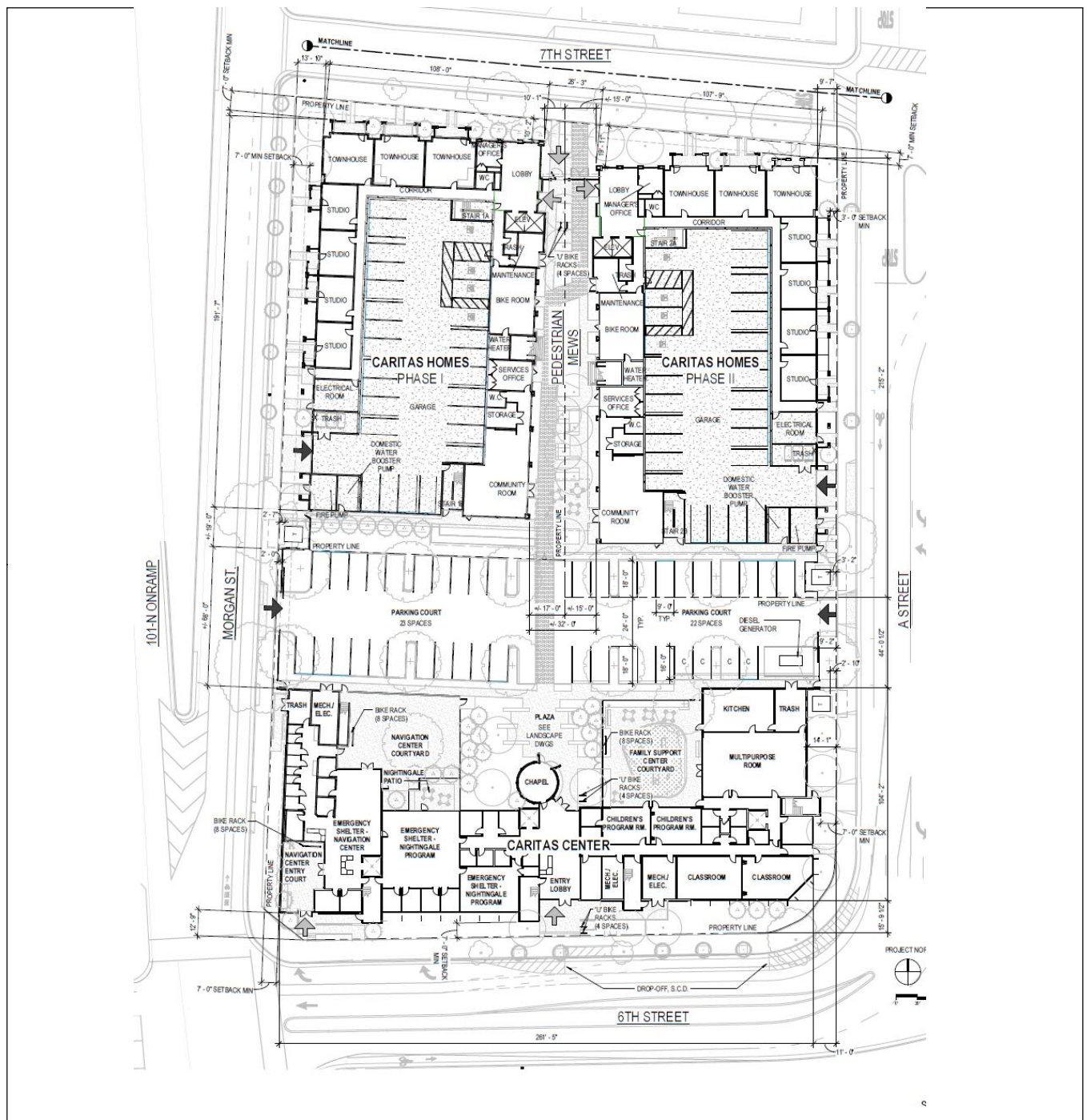
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2

Title
Study Area

Notes
1. Coordinate System: NAD 1983 StatePlane California II
FPS 0402 Feet
2. Service Layer Credits: © OpenStreetMap (and)

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Figure 3: Conceptual Site Plan



- Notes**
1. Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
 2. Service Layer Credits: © OpenStreetMap (and)

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Project Location
T.07N, R.08W Section 23
USGS 7.5-minute Quadrangle
Santa Rosa

Client/Project
City of Santa Rosa
Caritas Village Project

Figure No.

3

Title

Conceptual Site Plan

Attachment A. Addendum Arborist Report

To:	Elena Nuño, Senior Project Manager/Senior Air Quality Analyst Stantec Consulting Services Inc. 7502 North Colonial Avenue Suite 101 Fresno, CA 93711-5862 US	From:	Leticia Morris, Project Biologist Nick Eide, Certified Arborist Stantec Consulting Services Inc. 3875 Atherton Road Rocklin, CA US 95765-3716
File:	185704321	Date:	September 10, 2019

Reference: Caritas Village Project, Arborist Report Addendum

1. INTRODUCTION

On behalf of the City of Santa Rosa (City), Stantec Consulting Services Inc. (Stantec) has prepared this arborist report addendum (addendum) for the Caritas Village Project (project). The purpose of this addendum is to supplement the report prepared by Horticultural Associates for the project, provide information pertaining to applicable tree resources in the study area, and provide information collected during the tree surveys to support a tree permit application for the removal/trimming of trees within the City right-of-way.

2. PROJECT DESCRIPTION

The project site is located in the city of Santa Rosa in Sonoma County, California and is bordered by A Street, Morgan Street, 6th Street, and 7th Street. The project is located within the *Santa Rosa, California* U.S. Geological Survey 7.5-minute topographic quadrangle in Township 7N, Range 8W, Section 23 (Figure 1).

The study area for the purposes of the arborist survey, focused on locations where project activities could result in impacts to trees that are subject to the City's tree ordinance, and covers the entire 2.78-acre project site and encompasses all project components currently known at this time, including the parcel north of 7th Street where relocation of historic homes are proposed to be moved as a potential project alternative (Figure 2).

The project involves the redevelopment and construction of a comprehensive family and homeless support services facility (Caritas Center) to be operated by Catholic Charities and an affordable housing development (Caritas Homes) to be operated by Burbank Housing. The Caritas Center would consolidate the existing onsite Family Support Center and Homeless Services Center into a single building that would provide an emergency shelter, day center, transitional housing, wrap-around services, health services, and administrative offices. Caritas Homes would provide two permanent housing developments for 128 permanent affordable housing units (Figure 3).

3. REGULATORY REQUIREMENTS

City of Santa Rosa Tree Ordinance

The City adopted a Tree ordinance on October 2, 1990 to ensure proper tree removal and preservation (City of Santa Rosa 1990). Article 2, Section 17-24 of the City's tree ordinance requires a permit to remove or alter "heritage trees", "protected trees" and "street trees" in all zoning districts as defined below:

Heritage Tree. The City defines a "heritage tree" as a tree or grove of trees so designated by a resolution of the Planning Commission and after the holding of a noticed public hearing, having a specific historical or cultural association or value due to its age, species, character, location, height and/or the circumstances of its planting or origin." Species of heritage trees include: bay (*Umbellularia californica*), big leaf maple (*Acer macrophyllum*), black oak (*Quercus kelloggii*), blue oak (*Quercus douglasii*), buckeye (*Aesculus californica*), canyon oak (*Quercus chrysolepis*), Douglas fir (*Pseudotsuga menziesii*), interior live oak (*Quercus wislizenii*), live oak (*Quercus agrifolia*), madrone (*Arbutus menziesii*), Oregon white oak (*Quercus garryana*), red alder (*Alnus oregona*), redwood

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(*Sequoia sempervirens*), valley oak (*Quercus lobata*), and white alder (*Alnus rhombifolia*) (City of Santa Rosa 1990, Article II, Section 17-24.020: L).

Protected Tree. “Protected trees” are any tree, including a heritage tree, designated to be preserved on an approved development plan or as a condition of a tentative map, a tentative parcel map, or other development approval issued by the City” (City of Santa Rosa 1990, Article II, Section 17-24.020: M).

Street Tree. The City’s defines a “street tree” as any tree having a single trunk circumference greater than six and one-quarter inches or a diameter greater than two inches, a height of more than six feet, and one half or more of its trunk is within public right-of-way or within 5 feet of the paved portion of a City street or a public sidewalk” (City of Santa Rosa 1990, Article II, Section 17-24.020: O).

Exempt Trees

Section 17-24.030 of the City’s tree ordinance states “the following species of tree and any additional species, as determined by resolution of the City Council from time to time, are exempt from the provisions of this chapter (except for those that may exist as street trees) and a permit is not required for their alteration, removal or relocation: acacia (*acacia sp.*), silver maple (*Acer saccharinum*), poplar (*Populus nigra*), tree-of-heaven (*ailanthus altissima*), hawthorn (*Crataeus sp.*), fruitless mulberry (*Morus alba*), privet (*Ligustrum sp.*), firethorn (*Pyracantha sp.*), Monterey pine (*Pinus radiata*), Monterey cypress (*Cupressus macrocarpa*), and fruit and nut trees, except walnut trees which are not exempt.”(City of Santa Rosa 1990, Article II, Section 17-24.020). Likewise, non-heritage trees which are greater than 4 inches in diameter do not require a permit in the following zones: R-1, R-1-6, R-1-7.5, R-1-9, PRD, and R-1-PD (City of Santa Rosa 1990, Article II, Section 17-24.020).

4. METHODS

An arborist report was prepared by Horticultural Associates for the project on September 9, 2018. This report contained a thorough inventory of all tree species, including recordation of tree trunk size, health, and structural conditions for all trees measuring greater than 4 inches in diameter located within the Caritas Center project site (i.e., it excluded the parcel north of 7th Street where relocation of historic homes are proposed to be moved). An arborist Tree Preservation and Mitigation Report was also prepared by Horticultural Associates on September 13, 2018, which provided development impact assessments for each previously inventoried species based on the proposed development plan. The Tree Preservation and Mitigation Report prepared by Horticultural Associates is provided in Attachment A.

On November 20, 2018, Stantec qualified biologist (i.e., one knowledgeable in tree identification, and arboricultural practices and survey techniques) Leticia Morris re-surveyed the Caritas Center project site, to ensure consistency and accuracy with Horticultural Associates findings, and the parcel north of 7th Street where relocation of historic homes are proposed to be moved as a potential project alternative. Data collected during the arborist survey included tree species, trunk diameter at 4.5 feet above ground surface, approximate tree height and crown radius, and the overall health and structural condition. Tree health and condition were determined based on the following scale: poor (1), marginal (2), fair (3), good (4), and excellent (5). Where applicable, the locations of all recorded trees were recorded using a Global Positioning System receiver capable of sub-meter accuracy, and numbered tree tags were secured to previously surveyed trees in the relocation area.

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5. RESULTS

Caritas Village Project Parcel

Based on the arborist report prepared by Horticultural Associates, 66 trees were inventoried on September 9, 2018 and September 13, 2018 (Attachment A). Only 54 trees were present during the Stantec survey on November 20, 2018, and 12 trees (i.e., Tag # 9, 11, 47, 48, 49, 59, 52, 53, 61, 62, 63, and 65) had been removed. Based on the remaining trees on-site, 43 are still proposed for removal and up to 37 of those trees will require a tree permit from the City. The trees that require tree permits include species such as incense cedars (*Calocedrus decurrens*), hackberry (*Celtis australis*), bottlebrush (*Callistemon citrinus*), coast live oak, fern pine (*Podocarpus gracilior*), crepe myrtle (*Lagerstroemia indica*), glossy privet (*Ligustrum lucidum*), , and flowering pear (*Pyrus calleryana*). The remaining trees slated for removal do not require tree permits since they are exempt species. The location, type, and tag number of the trees proposed for removal as a result of the project are shown in the Revised Tree Removal and Preservation Plan in Attachment B.

Historic Homes Parcel

A total of 11 trees with trunk diameters greater than 4 inches were documented within the study area where the historic homes are proposed to be relocated. Of these 11 trees, four trees are situated as street trees located along the north side of 7th Street, and would require a tree removal permit if they are planned for removal (Figure 4). The remaining seven trees were inaccessible given they were located within a locked gate. Based on visual observation the seven trees included tree of heaven, plum, and unknown fruit tree species. These seven trees are not considered heritage or street trees given the species and location, and are not protected under the City's tree ordinance (i.e., no permit would be required to remove the trees).

Data collected for each of the four trees inventoried is provided below in Table 1 and the locations are shown in Figure 4. Photographs of all trees (including those documented by Horticultural Associates) are provided Attachment C. The locations of the trees documented in the Horticultural Associates report are provided in Attachment B.

Table 1. Tree Inventory Data

Tree #	Common Name	Species Name	Diameter (in) ¹	Height (ft)	Crown Radius (ft)	General Condition/ Structure	Location	Project Impacts
139	Mexican fan palm	<i>Washingtonia robusta</i>	3+3+4+6+6	20	8	4	Street Tree	Impacts are not currently proposed.
140	Crepe myrtle	<i>Lagerstroemia indica</i>	11	25	18	4	Street Tree	Impacts are not currently proposed
141	Crepe myrtle	<i>Lagerstroemia indica</i>	10.5	22	15	4	Street Tree	Impacts are not currently proposed
142	Crepe myrtle	<i>Lagerstroemia indica</i>	10	18	15	4	Street Tree	Impacts are not currently proposed

¹ Measured at 4.5 feet above ground surface.

6. SUMMARY AND MITIGATION REQUIREMENTS

Based on the current project design the project would remove up to 37 trees that are subject to the City's tree ordinance. The City requires compensatory mitigation of at least two 15-gallon trees for every 6 inches diameter removed per Section 17-24.050 of the City's Code. Alternatively, the City may accept an in-lieu payment of \$100.00 for each 15-gallon tree replacement (City of Santa Rosa 1990). Currently the landscaping plan includes planting 111 new trees as part of the project, it is anticipated that the replanting of these trees

September 10, 2019

Elena Nuño, Senior Project Manager/Senior Air Quality Analyst

Page 4

would satisfy the City's mitigation requirements. The trees to be preserved on-site would be protected in accord with the measures identified in Attachment B under "Tree Protection Notes".

Stantec Consulting Services Inc.



Nick Eide

ISA Certified Arborist (#WE-9153A)

Phone: (916) 704-3359

nick.eide@stantec.com

Figures: Figure 1-Location Map
 Figure 2-Study Area
 Figure 3-Conceptual Site Plan
 Figure 4-Additional Trees Inventoried

Attachment: Attachment A- Horticultural Associates Tree Preservation and Arborist Monitoring Report
 Attachment B: Revised Tree Removal and Preservation Plan
 Attachment C- Photographs

September 10, 2019

Elena Nuño, Senior Project Manager/Senior Air Quality Analyst

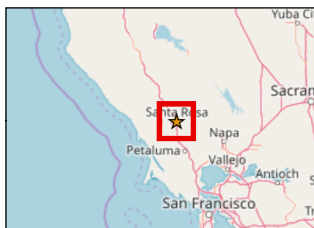
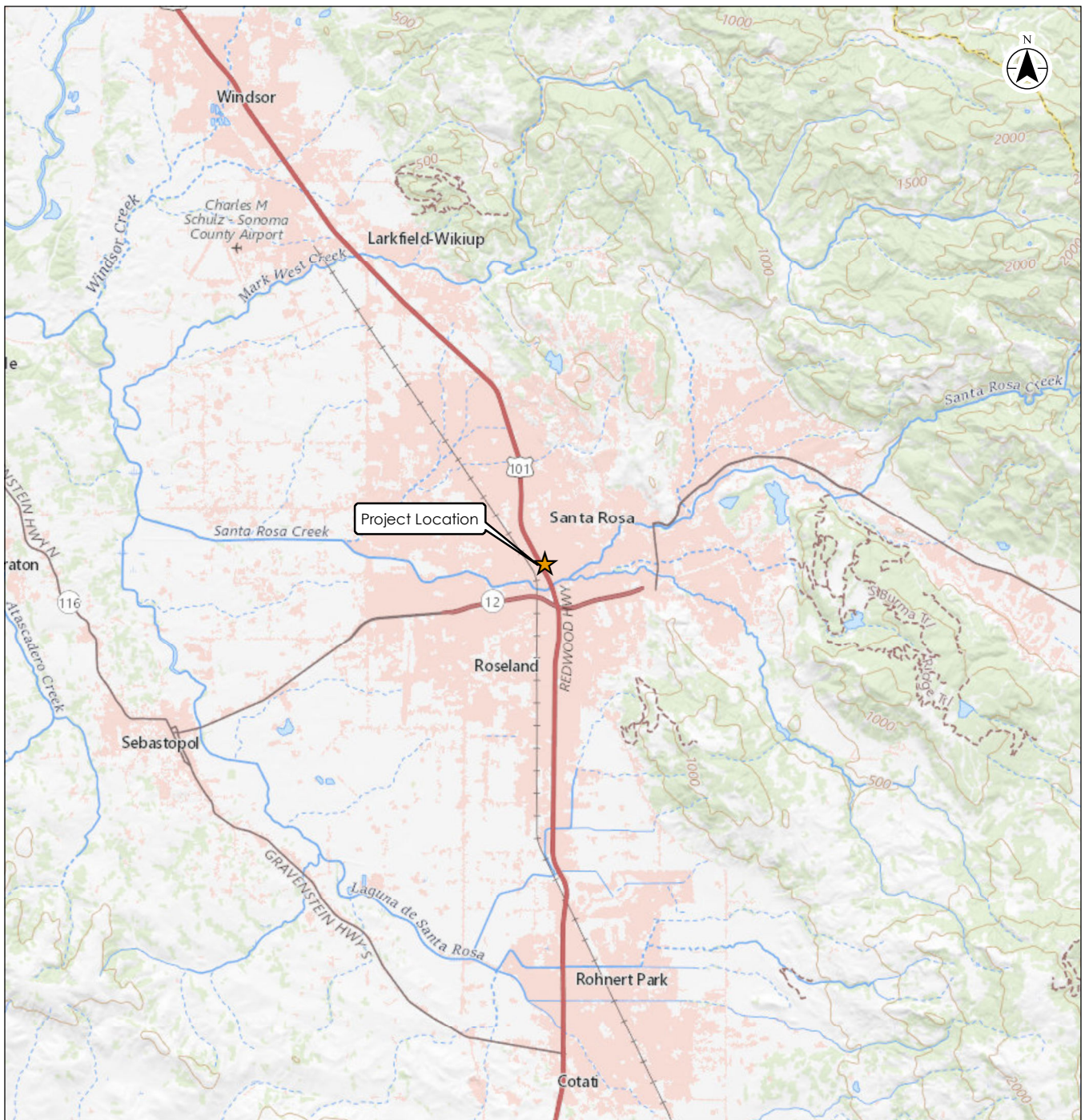
Page 5

REFERENCES

City of Santa Rosa. 1990. City of Santa Rosa City Code: Title 17 Environmental Protection: Chapter 17-24 Trees. Available, http://qcode.us/codes/santarosa/view.php?topic=17-17_24&frames=on. Accessed, November 20, 2018.

Figures

Figure 1: Location Map



Legend

★ Project Location

0 1 2 Miles
1:150,000 (at original document size of 8.5x11)



Project Location
T.07N, R.08W Section 23
USGS 7.5-minute Quadrangle
Santa Rosa

Client/Project
City of Santa Rosa
Caritas Village Project

Figure No.

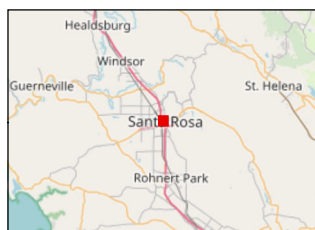
1

Title
Location Map

Notes
1. Coordinate System: NAD 1983 StatePlane California II
FPS 0402 Feet
2. Service Layer Credits: © OpenStreetMap (and)

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Figure 2: Study Area



Legend

Study Area

0 250 500
Feet
1:6,000 (at original document size of 8.5x11)



Project Location
T.07N. R.08W Section 23
USGS 7.5-minute Quadrangle
Santa Rosa

Client/Project
City of Santa Rosa
Caritas Village Project

Figure No.

2

Title

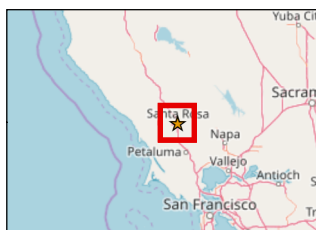
Study Area

Notes
1. Coordinate System: NAD 1983 StatePlane California II
FPS 0402 Feet
2. Service Layer Credits: © OpenStreetMap (and)

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Figure 3: Conceptual Site Plan

CARITAS VILLAGE SITE PLAN



Notes

1. Coordinate System: NAD 1983 StatePlane California II
FIPS 0402 Feet
2. Service Layer Credits: © OpenStreetMap (and)

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Project Location
T.07N, R.08W Section 23
USGS 7.5-minute Quadrangle
Santa Rosa

Client/Project
City of Santa Rosa
Caritas Village Project

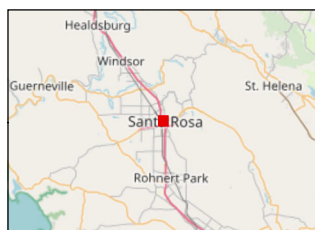
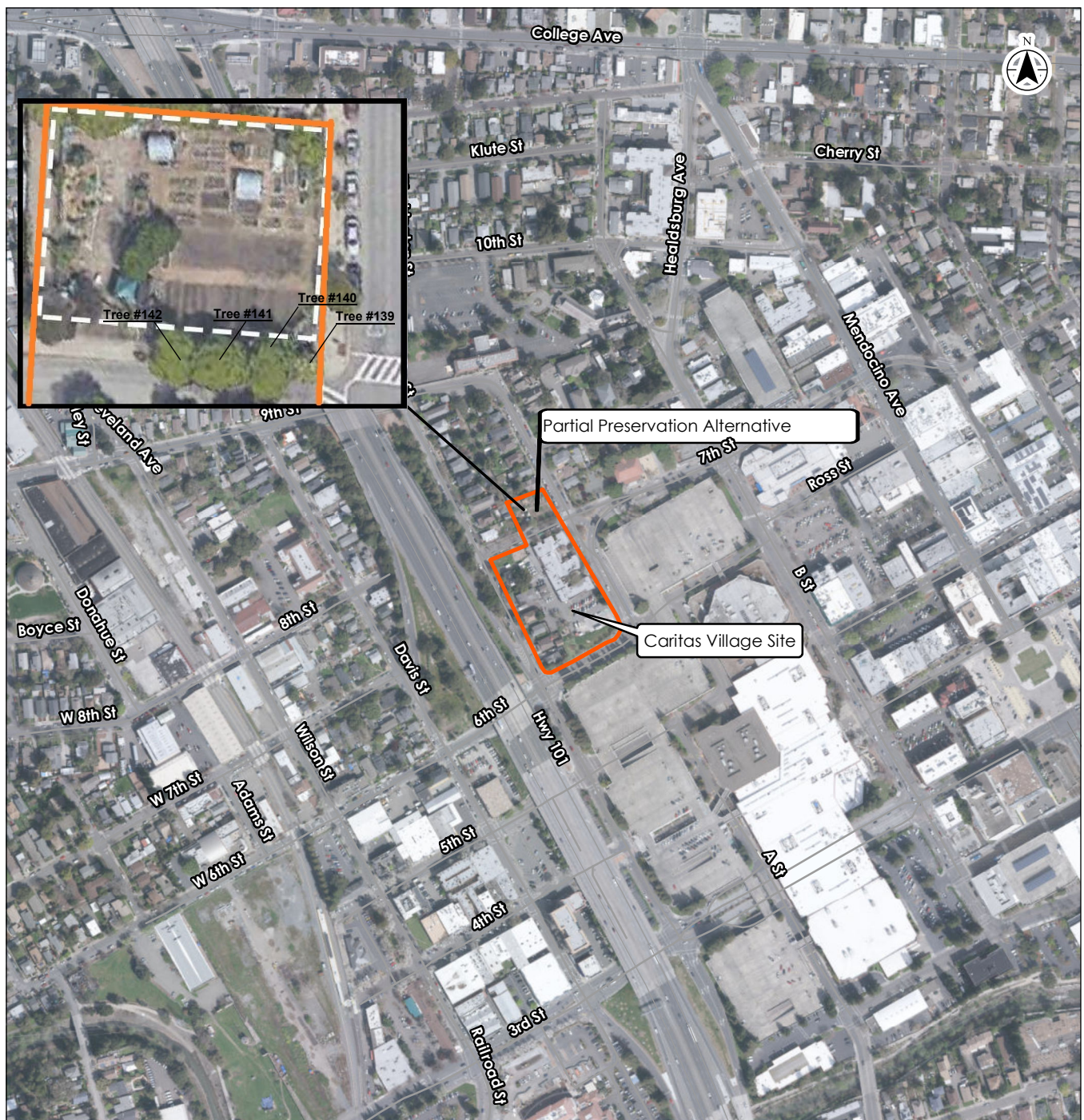
Figure No.

3

Title

Conceptual Site Plan

Figure 4: Additional Trees Inventoried



Legend

Study Area

0 250 500
Feet
1:6,000 (at original document size of 8.5x11)



Project Location
T.07N. R.08W Section 23
USGS 7.5-minute Quadrangle
Santa Rosa
Client/Project
City of Santa Rosa
Caritas Village Project

Figure No.

4

Title

Additional Trees Inventoried

Notes
1. Coordinate System: NAD 1983 StatePlane California II
FPS 0402 Feet
2. Service Layer Credits: © OpenStreetMap (and)

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Attachment A. Horticultural Associates Tree
Preservation and Arborist
Monitoring Report

HORTICULTURAL *Associates*

Consultants in Horticulture and Arboriculture

TREE PRESERVATION AND MITIGATION REPORT

Caritas Village

Between Seventh and Sixth Streets,
and Between 'A' and Morgan Streets
Santa Rosa, CA

Prepared for:

Catholic Charities
987 Airway Court
P.O. Box 4900
Santa Rosa, CA 95402

Prepared by:

John C. Meserve
Consulting Arborist and Horticulturist
ISA Certified Arborist, WE #0478A
ISA Tree Risk Assessment Qualified

City of Santa Rosa

SEP 20 2018

**Planning & Economic
Development Department**

September 13, 2018

September 13, 2018

Theresa Ballard
Senior Associate
Pyatok Architecture
1611 Telegraph Ave., # 200
Oakland, CA 94612

Re: Updated *Tree Preservation and Mitigation Report*, Caritas Village, Santa Rosa, CA

Theresa,

Attached you will find our updated *Tree Preservation and Mitigation Report* for the above noted project site. This report includes all trees for an entire city block between 6th and 7th Streets, and 'A' and Morgan Streets, in downtown Santa Rosa. A total of 66 trees were evaluated based on their trunk diameter and species. This includes all trees at the site greater than 4 inches in trunk diameter, including street trees.

Our previous Tree Inventory for this project was completed on September 9, 2014. That report was just an inventory, and did not include assessment of impacts associated with any development of the site. This submittal includes development impact assessments based on the development plan that you recently forwarded.

Each tree in this report has been documented for species, trunk size, health, and structural condition. The *Tree Location Plan* shows the location and numbering sequence of all evaluated trees.

This report is intended to be a basic inventory of trees present at this site, which includes a general review of tree health and structural condition. No in-depth evaluation has occurred, and assessment has included only external visual examination without probing, drilling, coring, root collar examination, root excavation, or dissecting any tree part. Failures, deficiencies, and problems may occur in these trees in the future, and this inventory in no way guarantees or provides a warranty for their condition.

EXISTING SITE CONDITION SUMMARY

The project site consists of a square city block that is mostly inhabited. A housing facility covers a good deal of the site, individual residential homes are also present, a warehouse, parking lots, and undeveloped property are also present.


Trees have been planted as city street trees on each of the four city blocks, and a wide variety of ornamental trees of various sizes are also scattered throughout the interior areas of the site. Many trees have generally been poorly maintained, or not maintained at all, and several have poor health or structure.

CONSTRUCTION IMPACT SUMMARY

The density of the proposed project will require the removal of all trees, with the possible exception of existing street trees that are planted in sidewalk areas. Depending on sidewalk and street improvements that might be associated with new construction, street trees may or may not be preservable. For the purposes of this phase of study I have identified those that are suitable street trees to be preserved. This may need to change as more information becomes available.

Please feel free to contact me if you have questions regarding this report, or if further discussion about any tree issue is required.

Regards,


John C. Meserve
Consulting Arborist and Horticulturist
ISA Certified Arborist, WE #0478A
ISA Tree Risk Assessment Qualified



TREE INVENTORY CHART

Tree #	Species	Common Name	Trunk (dbh ± inches)	Height (± feet)	Radius (± feet)	Health 1 - 5	Structure 1 - 4	Recommendations
1	<i>Pyrus calleryana</i>	Flowering Pear	7	30	10	4	2.5	3
2	<i>Lagerstroemia indica</i>	Crepe Myrtle	10	30	18	4	3	1, 6, 9
3	<i>Malus domestica</i>	Apple	3x3+2x2	18	10	4	3	2, 13
4	<i>Ligustrum lucidum</i>	Glossy Privet	3+3x2	14	8	4	3	2, 13
5	<i>Lagerstroemia indica</i>	Crepe Myrtle	9	25	14	4	3	1, 6, 9
6	<i>Pyrus calleryana</i>	Flowering Pear	9	30	14	4	3	1, 6, 9
7	<i>Lagerstroemia indica</i>	Crepe Myrtle	9	25	14	4	3	1, 6, 9
8	<i>Lagerstroemia indica</i>	Crepe Myrtle	9	25	15	4	3	1, 6, 9
9	<i>Malus domestica</i>	Apple	4.5	12	8	4	3	2, 13
10	<i>Lagerstroemia indica</i>	Crepe Myrtle	4x2	14	6	4	3	1, 6, 9
11	<i>Pyrus calleryana</i>	Flowering Pear	4	20	8	3	3	2
12	<i>Ligustrum lucidum</i>	Glossy Privet	8+17+21	30	15	3	2.5	3, 13
13	<i>Ligustrum lucidum</i>	Glossy Privet	8+7	35	15	4	3	2, 13
14	<i>Pyrus calleryana</i>	Flowering Pear	8	35	15	3	3	2
15	<i>Ligustrum lucidum</i>	Glossy Privet	19	30	15	4	2	3, 13
16	<i>Juglans regia</i>	English Walnut	14	30	16	4	3	1, 6, 9
17	<i>Juglans regia</i>	English Walnut	16.5	25	16	4	3	1, 6, 9
18	<i>Olea europaea</i>	Olive	15+17	30	16	4	3	1, 13
19	<i>Acer palmatum</i>	Japanese Maple	3+2+2	18	10	4	3	2
20	<i>Ailanthus altissima</i>	Tree of Heaven	22	30	15	4	3	5, 13
21	<i>Ligustrum lucidum</i>	Glossy Privet	9	25	12	4	3	2, 13
22	<i>Ligustrum lucidum</i>	Glossy Privet	14+10+9	30	16	4	3	2, 13
23	<i>Ligustrum lucidum</i>	Glossy Privet	10+6	25	15	4	3	2, 13
24	<i>Ligustrum lucidum</i>	Glossy Privet	14+12	30	16	4	3	2, 13
25	<i>Pyrus calleryana</i>	Flowering Pear	4	14	8	3	3	1, 6, 9

Tree #	Species	Common Name	Trunk (dbh ± inches)	Height (± feet)	Radius (± feet)	Health 1 - 5	Structure 1 - 4	Recommendations
26	<i>Pyrus calleryana</i>	Flowering Pear	8	25	12	4	3	1, 6, 9
27	<i>Pyrus calleryana</i>	Flowering Pear	11	25	12	4	3	1, 6, 9
28	<i>Pyrus calleryana</i>	Flowering Pear	4.5	15	8	3	3	1, 6, 9
29	<i>Pyrus calleryana</i>	Flowering Pear	8	22	10	4	3	1, 6, 9
30	<i>Pyrus calleryana</i>	Flowering Pear	10	25	12	4	3	1, 6, 9
31	<i>Pyrus calleryana</i>	Flowering Pear	9	25	12	4	3	1, 6, 9
32	<i>Pyrus calleryana</i>	Flowering Pear	11	25	14	4	3	1, 6, 9
33	<i>Calocedrus decurrens</i>	Incense Cedar	19	30	15	5	3	2
34	<i>Calocedrus decurrens</i>	Incense Cedar	20	30	15	5	3	2
35	<i>Acer rubrum</i>	Red Maple	9	30	15	4	3	1, 6, 9
36	<i>Pyrus calleryana</i>	Flowering Pear	10.5	30	15	4	3	2
37	<i>Pyrus calleryana</i>	Flowering Pear	10.5	30	15	4	3	2
38	<i>Prunus domestica</i>	Plum	5	18	10	3	3	2, 13
39	<i>Prunus domestica</i>	Plum	5.5	12	10	3	3	2, 13
40	<i>Acer rubrum</i>	Red Maple	8	30	15	4	3	1, 6, 9
41	<i>Liriodendron tulipifera</i>	Tulip Tree	17	35	16	4	3	1, 6, 9
42	<i>Pyrus calleryana</i>	Flowering Pear	13.5	35	18	4	3	2
43	<i>Pyrus calleryana</i>	Flowering Pear	7	25	12	3	3	2
44	<i>Pyrus calleryana</i>	Flowering Pear	7.5	20	10	3	3	2
45	<i>Pyrus calleryana</i>	Flowering Pear	6	22	10	3	3	2
46	<i>Liriodendron tulipifera</i>	Tulip Tree	16.5	35	16	4	3	1, 6, 9
47	<i>Cordyline australis</i>	Cabbage Tree	6+6+8+10	18	8	4	3	2
48	<i>Acer species</i>	Maple	4	10	8	4	3	2
49	<i>Acer palmatum</i>	Japanese Maple	3+2+2+2	12	8	4	3	2
50	<i>Ailanthus altissima</i>	Tree of Heaven	12+24	40	20	3	2	5, 13

Tree #	Species	Common Name	Trunk (dbh ± inches)	Height (± feet)	Radius (± feet)	Health 1 - 5	Structure 1 - 4	Recommendations
51	<i>Lagerstroemia indica</i>	Crepe Myrtle	6+5+5	25	12	4	3	2
52	<i>Juglans regia</i>	English Walnut	26	35	18	2.5	2.5	3
53	<i>Ligustrum lucidum</i>	Glossy Privet	9+10	35	15	4	3	2, 13
54	<i>Celtis australis</i>	Hackberry	10	30	15	3	3	2
55	<i>Callistemon citrinus</i>	Bottle Brush	4+4+5.5	12	10	4	3	2
56	<i>Quercus agrifolia</i>	Coast Live Oak	27	45	22	4	3	2
57	<i>Pyrus calleryana</i>	Flowering Pear	7	20	12	4	3	2
58	<i>Pyrus calleryana</i>	Flowering Pear	7	20	12	3	3	2
59	<i>Pyrus calleryana</i>	Flowering Pear	8	20	12	3	3	2
60	<i>Pyrus calleryana</i>	Flowering Pear	6	15	10	3	3	2
61	<i>Jugals regia</i>	English Walnut	3	12	8	4	3	2
62	<i>Ligustrum lucidum</i>	Glossy Privet	12+12+8+8	30	15	4	3	2, 13
63	<i>Populus nigra 'Italica'</i>	Lombardy Poplar	10+12	35	10	4	3	2, 13
64	<i>Podocarpus gracillior</i>	Fern Pine	14	25	14	4	3	2
65	<i>Morus aba</i>	Fruitless Mulberry	±32	30	21	4	2	3, 13
66	<i>Pyrus calleryana</i>	Flowering Pear	5	21	12	4	3	2

KEY TO TREE
INVENTORY CHART

KEY TO TREE INVENTORY CHART

Tree Number

Each tree has been identified in the field with an aluminum tag and reference number. Tags are attached to the trunk at approximately eye level. The *Tree Location Plan* illustrates the location of each numbered tree.

Species

Each tree has been identified by genus, species and common name. Many species have more than one common name.

Trunk

Each trunk has been measured or estimated, in inches, to document its diameter, at 4.5 feet above adjacent grade. Trunk diameter is a good indicator of age, and is commonly used to determine mitigation replacement requirements.

Height

Height is estimated in feet, using visual assessment.

Radius

Radius is estimated in feet, using visual assessment. Since many canopies are asymmetrical, it is not uncommon for a radius estimate to be an average of the canopy size.

Health

The following descriptions are used to rate the health of a tree. Trees with a rating of 4 or 5 are very good candidates for preservation and will tolerate more construction impacts than trees in poorer condition. Trees with a rating of 3 may or may not be good candidates for preservation, depending on the species and expected construction impacts. Trees with a rating of 1 or 2 are generally poor candidates for preservation.

- (5) Excellent - health and vigor are exceptional, no pest, disease, or distress symptoms.
- (4) Good - health and vigor are average, no significant or specific distress symptoms, no significant pest or disease.
- (3) Fair - health and vigor are somewhat compromised, distress is visible, pest or disease may be present and affecting health, problems are generally correctable.
- (2) Marginal - health and vigor are significantly compromised, distress is highly visible and present to the degree that survivability is in question.
- (1) Poor - decline has progressed beyond the point of being able to return to a healthy condition again. Long-term survival is not expected. This designation includes dead trees.

Structure

The following descriptions are used to rate the structural integrity of a tree. Trees with a rating of 3 or 4 are generally stable, sound trees which do not require significant pruning, although cleaning, thinning, or raising the canopy might be desirable. Trees with a rating of 2 are generally poor candidates for preservation unless they are preserved well away from improvements or active use areas. Significant time and effort would be required to reconstruct the canopy and improve structural integrity. Trees with a rating of 1 are hazardous and should be removed.

- (4) Good structure - minor structural problems may be present which do not require corrective action.
- (3) Moderate structure - normal, typical structural issues which can be corrected with pruning.
- (2) Marginal structure - serious structural problems are present which may or may not be correctable with pruning, cabling, bracing, etc.
- (1) Poor structure - hazardous structural condition which cannot be effectively corrected with pruning or other measures, may require removal depending on location and the presence of targets.

Recommendations

Recommendations are provided for removal or preservation. For those being preserved, protection measures and mitigation procedures to offset impacts and improve tree health are provided.

- (1) Preservation appears to be possible.
- (2) Removal is required due to significant development impacts.
- (3) Removal is recommended due to poor health or hazardous structure.
- (4) Removal is required due to significant development impacts and poor existing condition.
- (5) Removal is recommended due to poor species characteristics.
- (6) Install temporary protective fencing at the edge of the dripline, or edge of approved construction, prior to beginning grading or construction. Maintain fencing in place for duration of all construction activity in the area.
- (7) Maintain existing grade within the fenced portion of the dripline. Route drainage swales and all underground work outside the dripline.
- (8) Place a 4" layer of chipped bark mulch over the soil surface within the fenced dripline prior to installing temporary fencing. Maintain this layer of mulch throughout construction.
- (9) Prune to clean the canopy, per International Society of Arboriculture pruning standards.
- (10) Prune to thin the canopy, per International Society of Arboriculture pruning standards.
- (11) Prune to raise the canopy, per International Society of Arboriculture pruning standards.

- (12) Prune to provide clearance for adjacent improvements, per International Society of Arboriculture pruning standards.
- (13) This species is exempt from preservation and mitigation, per the Santa Rosa Tree Ordinance.

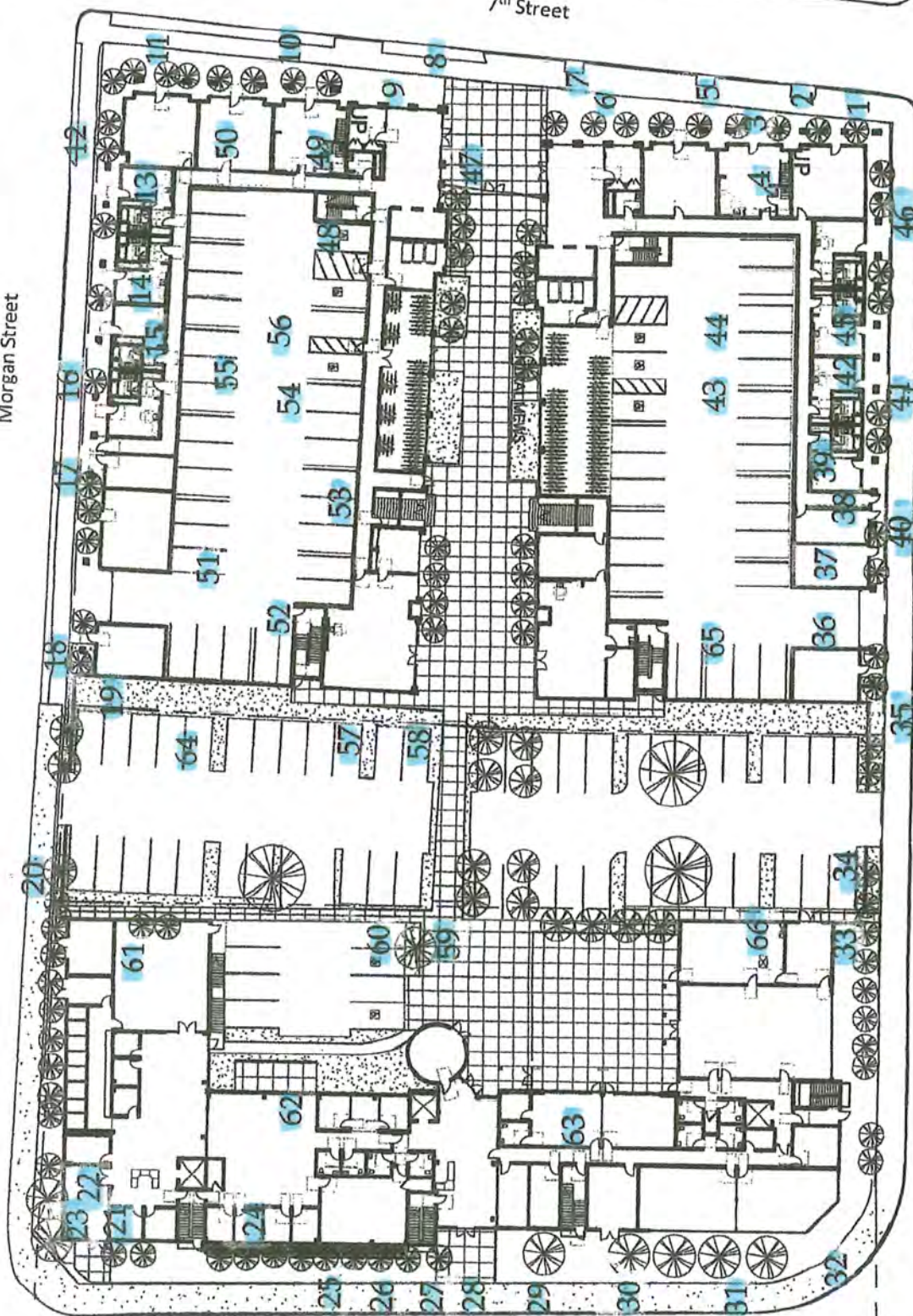
TREE LOCATION PLAN

Morgan Street

7th Street

A Street

6th Street



TREE LOCATION & NUMBERING PLAN

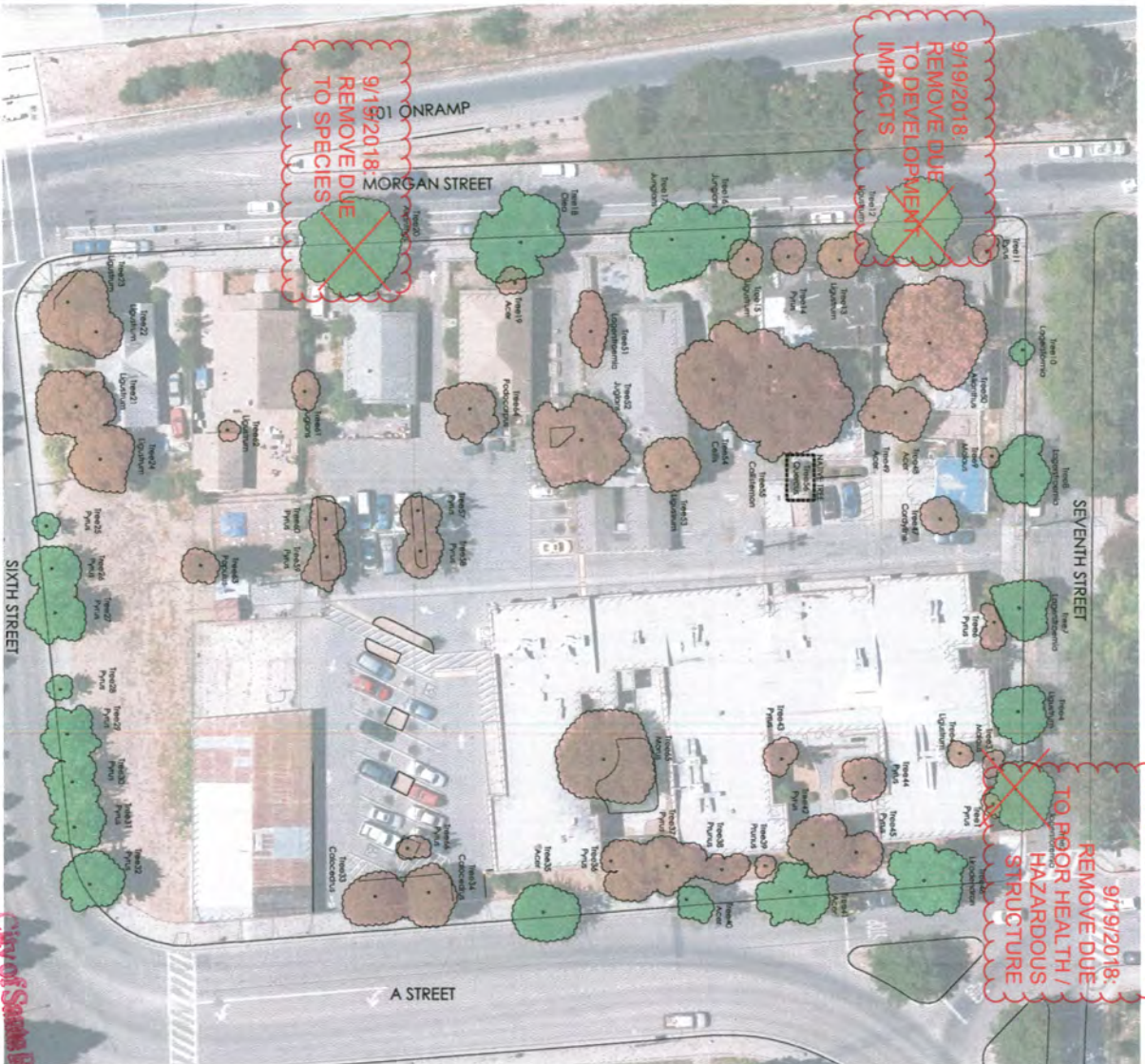
Caritas Village
Santa Rosa, California

THIS PLAN TO BE USED IN CONJUNCTION WITH
TREE INVENTORY REPORT
DATED 9/13/18

JOHN C. MESERVE

CONSULTING ARBORIST
International Society of Arboriculture
Certified Arborist WE #0478A

HORTICULTURAL ASSOCIATES
P.O. BOX 1261 / GLEN ELLEN, CA 95442
707.935.3911



9/19/2018:
REMOVE DUE
TO DEVELOPMENT
IMPACTS

9/19/2018:
REMOVE DUE
TO SPECIES

9/19/2018:
REMOVE DUE
TO POOR HEALTH /
HAZARDOUS
STRUCTURE

ARBORIST EVALUATION

Only a single mature tree #4, a 27' Coast Live Oak, is present on site. The Oak is to be removed due to conflicts with proposed improvements. The bulk of the trees on the site are ornamental species that have either been planted or volunteered.

TREE PRESERVATION AND REMOVAL

- TREE TO BE PRESERVED
- TREE TO BE REMOVED, FOR CONSTRUCTION
- Tree number from Arborist Report Sept. 19th 2014
- Tree species

TREE PROTECTION NOTES

1. Prior to initiation of any construction activity in the area, including excavation or grading, temporary protective fencing shall be installed around the tree in the immediate vicinity of construction, fencing 1/8 inch thick and be a minimum of four foot height at all locations, and shall form a continuous barrier without any gaps and around all individual trees. The fencing shall be clearly marked with reflective orange plastic fencing. A signposted, but any fencing system which obstructs pedestrian entry or egress, or any other activity, shall be unacceptable. No and professional involve with adequate lighting and appropriate signage. Construction lighting on or near trees. Any environmental disturbance, including but not limited to, shall be avoided. The fencing shall be a barrier to prevent any access to the work area. The fencing shall be a barrier to prevent any access to the work area. The fencing shall be a barrier to prevent any access to the work area.
2. The fencing shall be a barrier to prevent any access to the work area.
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5. The fencing shall be a barrier to prevent any access to the work area.
6. The fencing shall be a barrier to prevent any access to the work area.

CARITAS VILLAGE
CARITAS VILLAGE, SANTA ROSA CA



City of Santa Rosa

SEP 20 2018

Planning & Economic
Development Department

9/19/2018:
REVISED TO INDICATE
ADDITIONAL
TREES FOR REMOVAL
BY T. BALLARD, AIA,
PYATOK

L.01

TREE INVENTORY
 Caritas Village
 Santa Rosa, CA

September 13, 2018

Tree #	Species	Common Name	Trunk (dbh ± inches)	Height (± feet)	Radius (± feet)	Health 1 - 5	Structure 1 - 4	REASON FOR REMOVAL, PERMIT REQUEST
1	Pyrus calleryana	Flowering Pear	7	30	10	4	2.5	HAZARDOUS STRUCTURE
2	Lagerstroemia indica	Crepe Myrtle	10	30	18	4	3	1, 6, 9
PERMIT NOT REQUIRED	Adonis domestica	Apple	3x3-2x2	18	10	4	3	2, 13
PERMIT NOT REQUIRED	Ligustrum lucidum	Glossy Privet	3+3x2	14	8	4	3	2, 13
KEEP	Lagerstroemia indica	Crepe Myrtle	9	25	14	4	3	1, 6, 9
6	Pyrus calleryana	Flowering Pear	9	30	14	4	3	RESTRICTING DEVELOPMENT
KEEP	Lagerstroemia indica	Crepe Myrtle	9	25	14	4	3	1, 6, 9
KEEP	Lagerstroemia indica	Crepe Myrtle	9	25	15	4	3	1, 6, 9
PERMIT NOT REQUIRED	Malus domestica	Apple	4x5	12	8	4	3	2, 13
KEEP	Lagerstroemia indica	Crepe Myrtle	4x2	14	6	4	3	1, 6, 9
11	Pyrus calleryana	Flowering Pear	4	20	8	3	3	RESTRICTING DEVELOPMENT
12	Ligustrum lucidum	Glossy Privet	8+17+21	30	15	3	2.5	HAZARDOUS STRUCTURE
PERMIT NOT REQUIRED	Ligustrum lucidum	Glossy Privet	8+7	35	15	4	3	2, 13
14	Pyrus calleryana	Flowering Pear	8	35	15	3	3	RESTRICTING DEVELOPMENT
PERMIT NOT REQUIRED	Ligustrum lucidum	Glossy Privet	19	30	15	4	2	3, 13
KEEP	Ingens regia	English Walnut	14	30	16	4	3	1, 6, 9
KEEP	Ingens regia	English Walnut	16.5	25	16	4	3	1, 6, 9
KEEP	Olea europaea	Olive	15+17	30	16	4	3	1, 13
19	Acer palmatum	Japanese Maple	3+2+2	18	10	4	3	RESTRICTING DEVELOPMENT
20	Ailanthus altissima	Tree of Heaven	22	30	15	4	3	RESTRICTING DEVELOPMENT
PERMIT NOT REQUIRED	Ligustrum lucidum	Glossy Privet	9	25	12	4	3	2, 13
PERMIT NOT REQUIRED	Ligustrum lucidum	Glossy Privet	14+10+9	30	16	4	3	2, 13
PERMIT NOT REQUIRED	Ligustrum lucidum	Glossy Privet	10+6	25	15	4	3	2, 13
PERMIT NOT REQUIRED	Ligustrum lucidum	Glossy Privet	14+12	30	16	4	3	3
KEEP	Pyrus calleryana	Flowering Pear	4	14	8	3	3	1, 6, 9

SEP 20 2018

HORTICULTURAL ASSOCIATES
 P.O. Box 1261, Glen Ellen, CA 95442
 707.935.3911

Planning & Economic
 Development Department

TREE INVENTORY
 Caritas Village
 Santa Rosa, CA

September 13, 2018

Tree #	Species	Common Name	Trunk (dbh ± inches)	Height (± feet)	Radius (± feet)	Health 1 - 5	Structure 1 - 4	REASON FOR REMOVAL PERMIT REQUEST
26	<i>Pyrus calleryana</i>	Flowering Pear	8	25	12	4	3	1, 6, 9
27	<i>Pyrus calleryana</i>	Flowering Pear	11	25	12	4	3	1, 6, 9
28	<i>Pyrus calleryana</i>	Flowering Pear	4.5	15	8	3	3	1, 6, 9
29	<i>Pyrus calleryana</i>	Flowering Pear	8	22	10	4	3	1, 6, 9
30	<i>Pyrus calleryana</i>	Flowering Pear	10	25	12	4	3	1, 6, 9
31	<i>Pyrus calleryana</i>	Flowering Pear	9	25	12	4	3	1, 6, 9
32	<i>Pyrus calleryana</i>	Flowering Pear	11	25	14	4	3	1, 6, 9
33	<i>Calocedrus decurrens</i>	Incense Cedar	19	30	15	5	3	RESTRICTING DEVELOPMENT
34	<i>Calocedrus decurrens</i>	Incense Cedar	20	30	15	5	3	RESTRICTING DEVELOPMENT
35	<i>Acer rubrum</i>	Red Maple	9	30	15	4	3	1, 6, 9
36	<i>Pyrus calleryana</i>	Flowering Pear	10.5	30	15	4	3	RESTRICTING DEVELOPMENT
37	<i>Pyrus calleryana</i>	Flowering Pear	10.5	30	15	4	3	RESTRICTING DEVELOPMENT
38	<i>Pearus domestica</i>	Plum	5	18	10	3	3	2, 13
39	<i>Pearus domestica</i>	Plum	5.5	12	10	3	3	2, 13
40	<i>Acer rubrum</i>	Red Maple	8	30	15	4	3	1, 6, 9
41	<i>Liriodendron tulipifera</i>	Tulip Tree	17	35	16	4	3	1, 6, 9
42	<i>Pyrus calleryana</i>	Flowering Pear	13.5	35	18	4	3	RESTRICTING DEVELOPMENT
43	<i>Pyrus calleryana</i>	Flowering Pear	7	25	12	3	3	RESTRICTING DEVELOPMENT
44	<i>Pyrus calleryana</i>	Flowering Pear	7.5	20	10	3	3	RESTRICTING DEVELOPMENT
45	<i>Pyrus calleryana</i>	Flowering Pear	6	22	10	3	3	RESTRICTING DEVELOPMENT
46	<i>Liriodendron tulipifera</i>	Tulip Tree	16.5	35	16	4	3	1, 6, 9
47	<i>Cordylone australis</i>	Cabbage Tree	6+6+8+10	18	8	4	3	RESTRICTING DEVELOPMENT
48	<i>Acer species</i>	Maple	4	10	8	4	3	RESTRICTING DEVELOPMENT
49	<i>Acer palmatum</i>	Japanese Maple	3+2+2+2	12	8	4	3	RESTRICTING DEVELOPMENT
50	<i>Attandus missina</i>	Tree of Heaven	12-24	40	20	3	2	5, 13

HORTICULTURAL ASSOCIATES
 P.O. Box 1261, Glen Ellen, CA 95442
 707.935.3911

TREE INVENTORY
 Caritas Village
 Santa Rosa, CA

September 13, 2018

Tree #	Species	Common Name	Trunk (dbh ± inches)	Height (± feet)	Radius (± feet)	Health 1 - 5	Structure 1 - 4	REASON FOR REMOVAL PERMIT REQUEST
51	<i>Lagerstroemia indica</i>	Crape Myrtle	6+5+5	25	12	4	3	RESTRICTING DEVELOPMENT
52	<i>Juglans regia</i>	English Walnut	26	35	18	2.5	2.5	POOR TREE HEALTH
53	<i>Ligustrum lucidum</i>	Glossy Privet	9+10	35	15	4	3	2, 13
54	<i>Celtis australis</i>	Hackberry	10	30	15	3	3	RESTRICTING DEVELOPMENT
55	<i>Callistemon citrinus</i>	Bottle Brush	4+4+5.5	12	10	4	3	RESTRICTING DEVELOPMENT
56	<i>Quercus agrifolia</i>	Coast Live Oak	27	45	22	4	3	RESTRICTING DEVELOPMENT
57	<i>Pyrus calleryana</i>	Flowering Pear	7	20	12	4	3	RESTRICTING DEVELOPMENT
58	<i>Pyrus calleryana</i>	Flowering Pear	7	20	12	3	3	RESTRICTING DEVELOPMENT
59	<i>Pyrus calleryana</i>	Flowering Pear	8	20	12	3	3	RESTRICTING DEVELOPMENT
60	<i>Pyrus calleryana</i>	Flowering Pear	6	15	10	3	3	RESTRICTING DEVELOPMENT
61	<i>Juglans regia</i>	English Walnut	3	12	8	4	3	RESTRICTING DEVELOPMENT
62	<i>Ligustrum lucidum</i>	Glossy Privet	12+12+8+8	30	15	4	3	2, 13
63	<i>Populus nigra 'Italica'</i>	Lombardy Poplar	10+12	35	10	4	3	2, 13
64	<i>Podocarpus gnacalior</i>	Fern Pine	14	25	14	4	3	RESTRICTING DEVELOPMENT
65	<i>Myrica nana</i>	Fruitless Mulberry	±32	30	21	4	2	3, 13
66	<i>Pyrus calleryana</i>	Flowering Pear	5	21	12	4	3	RESTRICTING DEVELOPMENT

Attachment B. Revised Tree Removal and Preservation Plan

CARITAS VILLAGE
CARITAS VILLAGE, SANTA ROSA CA

STAMP:

JOB NUMBER:	NOI
DRAWN BY:	JAB
CHECKED BY:	CT
DATE:	07/22/2019
SCALE:	PER PLANS
TITLE:	
TREE REMOVAL AND PRESERVATION PLAN	
SHEET:	

L.01

ARBORIST EVALUATION

Prior to initiation of any construction activity in the area, including grading, excavation, trenching, and foundation work, a professional arborist shall conduct a field survey to identify and document all trees on site. The arborist shall provide a written report to the project engineer. The report shall include the following information:

- 1. Tree number from Project Arborist Report Sept. 9th 2014
- 2. Tree species

TREE TO BE PRESERVED

TREE TO BE REMOVED, FOR CONSTRUCTION OR PER FIRE DEPARTMENT REQUIREMENTS

TREE PRESERVATION AND REMOVAL

TREE PROTECTION NOTES

1. Prior to initiation of any construction activity in the area, including grading, excavation, trenching, and foundation work, a professional arborist shall conduct a field survey to identify and document all trees on site. The arborist shall provide a written report to the project engineer. The report shall include the following information:
 - a. Tree number from Project Arborist Report Sept. 9th 2014
 - b. Tree species
2. The fencing shall be a minimum of one foot beyond the canopy drip line from a continuous barrier without entry points and around all individual trees, or groups of trees. Barrier type fencing such as chain link or tensar plastic fencing is suggested, but any fencing system which adequately prevents entry of equipment and activity will be acceptable. Post and cable fencing is not recommended. Fencing shall be installed in a professional manner with adequate uprights and appropriate end-anchoring. Any encroachment into the drip line of for fencing construction purposes should be discussed and agreed upon in advance.
3. The fencing shall serve as a barrier to prevent dip line encroachment of any type by construction activities, equipment, material storage, and personnel.
4. Contractors and subcontractors shall direct all equipment and personnel to remain outside the fenced area at all times until project is complete. Instruction shall be given as to the purpose and the importance of fencing and preservation.
5. Fencing shall be removed upon completion of construction activities are completed. Temporary access may be granted to facilitate work under specific circumstances when discussed and agreed upon in advance.
6. Roots of single standing trees often extend two-three times the distance of the actual drip line. As much area around the circumference of the tree beyond the drip line should have minimum instruction to further ensure tree survival and health.



Attachment C. Photographs

ATTACHMENT C— PHOTOGRAPHS



Photograph 1. (left) tree #1 flowering pear (*Pyrus calleryana*). Photograph 2. (right) tree #2, crepe myrtle (*Lagerstroemia indica*).



Photograph 3. (left): tree #3, immature apple (*Malus domestica*) with immature Mexican fan palm (*Washingtonia robusta*) recruit nearby. Photograph 4. (right): tree #4, glossy privet (*Ligustrum lucidum*).



Key to Arrows:

Green = Tree to be Preserved;

Yellow = Tree to be Removed; No Permit Required (exempt species);

Red = Tree to be Removed, Permit Required (Street tree, ordinance tree, or otherwise protected tree)



Photograph 5 (left) tree #5, crepe myrtle. Photograph 6. (right) tree #6, flowering pear.



Photograph 7. (left): tree #7, crepe myrtle. Photograph 8. (right): tree #8, crepe myrtle.



Key to Arrows:

Green = Tree to be Preserved;
Yellow = Tree to be Removed; No Permit Required;
Red = Tree to be Removed, Permit Required



Photograph 9 (left) tree #10, crepe myrtle. Photograph 10. (right) tree #12, glossy pivot.



Photograph 11. (left): tree #13, glossy pivot. Photograph 12. (right): tree #14, flowering pear.



Key to Arrows:

Green = Tree to be Preserved;
Yellow = Tree to be Removed; No Permit Required;
Red = Tree to be Removed, Permit Required



Photograph 13 (left) tree #15, glossy privet. Photograph 14. (right) tree #16, English walnut (*Juglans regia*).



Photograph 15. (left): tree #17, English walnut. Photograph 16. (right): tree #18, olive (*Olea europaea*.)



Key to Arrows:

Green = Tree to be Preserved;
Yellow = Tree to be Removed; No Permit Required;
Red = Tree to be Removed, Permit Required



Photograph 17. (left): tree #19, Japanese maple (*Acer palmatum*). Photograph 18. (right): tree #20, tree of heaven (*Ailanthus altissima*).



Photograph 19: tree # 21, #22, #23, three glossy privets slated for removal on the corner of Sixth Street and Morgan Street.



Key to Arrows:

Green = Tree to be Preserved;
Yellow = Tree to be Removed; No Permit Required;
Red = Tree to be Removed, Permit Required



Photograph 20: tree #24, glossy privet, slated for removal. Tree #21, #22, #23 (glossy privets) are located southwest of tree #24 at the corner of Sixth Street and Morgan Street.



Photograph 21. (left): tree #25, flowering pear. Photograph 22. (right): tree #26, tree of heaven flowering pair along Sixth Street.



Key to Arrows:

Green = Tree to be Preserved;
Yellow = Tree to be Removed; No Permit Required;
Red = Tree to be Removed, Permit Required



Photograph 23 (left): tree #27, flowering pear. Photograph 24. (right): tree #28, flowering pear to be preserved.



Photograph 25. (left): tree #29, flowering pear to be preserved. Photograph 26. (right): tree #30, flowering pear to be preserved.



Key to Arrows:

Green = Tree to be Preserved;
Yellow = Tree to be Removed; No Permit Required;
Red = Tree to be Removed, Permit Required



Photograph 27 (left): tree #31, flowering pear. Photograph 28. (right): tree #32, flowering pear to be preserved.



Photograph 29. (left): tree #33, incense cedar (*Calocedrus decurrens*). Photograph 30. (right): tree #34, incense cedar, both trees to be removed.

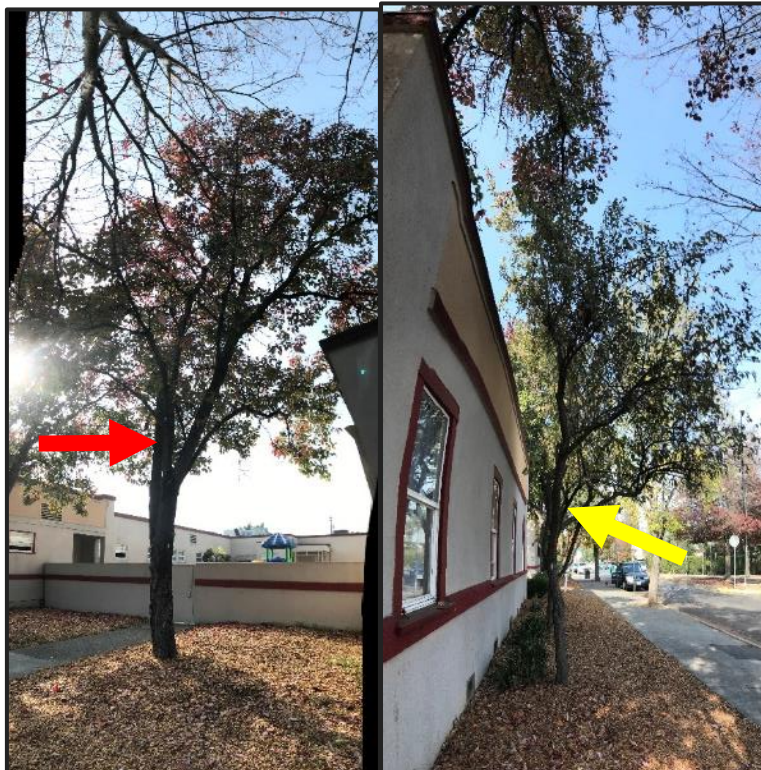


Key to Arrows:

Green = Tree to be Preserved;
Yellow = Tree to be Removed; No Permit Required;
Red = Tree to be Removed, Permit Required



Photograph 31 (left): tree #35, red maple (*Acer rubrum*) to be preserved. Photograph 32. (right): tree #36, flowering pear to be removed.



Photograph 33. (left): tree #37, flowering pear to be removed. Photograph 34. (right): tree #38, plum, (*Prunus domestica*) to be removed.



Key to Arrows:

Green = Tree to be Preserved;
Yellow = Tree to be Removed; No Permit Required;
Red = Tree to be Removed, Permit Required



Photograph 35 (left): tree #39, plum to be removed. Photograph 36. (right): tree #40, red maple to be preserved.



Photograph 37. (left): tree #41, tulip tree (*Liriodendron tulipifera*) to be preserved. Photograph 38. (right): tree #42, flowering pear to be removed.



Key to Arrows:

Green = Tree to be Preserved;
Yellow = Tree to be Removed; No Permit Required;
Red = Tree to be Removed, Permit Required



Photograph 39 (left): tree #43, flowering pear in the courtyard. Photograph 40. (right): tree #44, flowering pear, both trees to be removed.



Photograph 41. (left): tree #45, flowering pear to be removed. Photograph 42. (right): tree #46, tulip tree to be preserved.



Key to Arrows:

Green = Tree to be Preserved;
Yellow = Tree to be Removed; No Permit Required;
Red = Tree to be Removed, Permit Required



Photograph 43 (left): tree #51, crepe myrtle to be removed. Photograph 44. (right): tree #54, hackberry (*Celtis australis*) to be removed.



Photograph 45. (left): tree #55, bottle brush (*Callistemon citrinus*) to be removed. Photograph 46. (right): tree #56, coast live oak (*Quercus agrifolia*) tree to be removed.



Key to Arrows:

Green = Tree to be Preserved;
Yellow = Tree to be Removed; No Permit Required;
Red = Tree to be Removed, Permit Required



Photograph 47 (left): tree #57, flowering pear to be removed. Photograph 48. (right): tree #58, flowering pear to be removed.



Photograph 49. (left): tree #59, flowering pear (*Callistemon citrinus*) to be removed. Photograph 50. (right): tree #60, flowering pear tree to be removed.



Key to Arrows:

Green = Tree to be Preserved;
Yellow = Tree to be Removed; No Permit Required;
Red = Tree to be Removed, Permit Required



Photograph 51 (left): tree #64, fern pine (*Podocarpus gracillor*) to be removed. Photograph 52. (right): tree #66, flowering pear to be removed.



Photograph 53. (left): tree #139, Mexican fan palm (*Washingtonia robusta*). Photograph 54. (right): tree #140 and tree #141, crepe myrtle.



Key to Arrows:

Green = Tree to be Preserved;
Yellow = Tree to be Removed; No Permit Required;
Red = Tree to be Removed, Permit Required



Photograph 55. (left): tree #142, crepe myrtle.



Key to Arrows:

Green = Tree to be Preserved;
Yellow = Tree to be Removed; No Permit Required;
Red = Tree to be Removed, Permit Required

Attachment B. USFWS Species List



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To:

November 20, 2018

Consultation Code: 08ESMF00-2019-SLI-0375

Event Code: 08ESMF00-2019-E-01145

Project Name: Caritas Village Project

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

(916) 414-6600

Project Summary

Consultation Code: 08ESMF00-2019-SLI-0375

Event Code: 08ESMF00-2019-E-01145

Project Name: Caritas Village Project

Project Type: ** OTHER **

Project Description: EIR development project

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/38.44089024287479N122.71936136191005W>



Counties: Sonoma, CA

Endangered Species Act Species

There is a total of 12 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [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.

Birds

NAME	STATUS
Northern Spotted Owl <i>Strix occidentalis caurina</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1123	Threatened

Reptiles

NAME	STATUS
Green Sea Turtle <i>Chelonia mydas</i> Population: East Pacific DPS No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6199	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander <i>Ambystoma californiense</i> Population: U.S.A. (CA - Sonoma County) There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2076	Endangered

Insects

NAME	STATUS
San Bruno Elfin Butterfly <i>Callophrys mossii bayensis</i> There is proposed critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/3394	Endangered

Crustaceans

NAME	STATUS
California Freshwater Shrimp <i>Syncaris pacifica</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7903	Endangered

Flowering Plants

NAME	STATUS
Burke's Goldfields <i>Lasthenia burkei</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4338	Endangered
Clara Hunt's Milk-vetch <i>Astragalus clarianus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3300	Endangered
Sebastopol Meadowfoam <i>Limnanthes vinculans</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/404	Endangered
Showy Indian Clover <i>Trifolium amoenum</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6459	Endangered
Sonoma Sunshine <i>Blennosperma bakeri</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1260	Endangered
White Sedge <i>Carex albida</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3063	Endangered

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Attachment C. CNDDDB & CNPS Species List



Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad IS (Santa Rosa (3812246) OR Sebastopol (3812247) OR Kenwood (3812245) OR Healdsburg (3812257) OR Mark West Springs (3812256) OR Calistoga (3812255) OR Two Rock (3812237) OR Cotati (3812236) OR Glen Ellen (3812235))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
American badger <i>Taxidea taxus</i>	AMAJF04010	None	None	G5	S3	SSC
American peregrine falcon <i>Falco peregrinus anatum</i>	ABNKD06071	Delisted	Delisted	G4T4	S3S4	FP
Baker's goldfields <i>Lasthenia californica</i> ssp. <i>bakeri</i>	PDAST5L0C4	None	None	G3T1	S1	1B.2
Baker's navarretia <i>Navarretia leucocephala</i> ssp. <i>bakeri</i>	PDPLM0C0E1	None	None	G4T2	S2	1B.1
bank swallow <i>Riparia riparia</i>	ABPAU08010	None	Threatened	G5	S2	
bent-flowered fiddleneck <i>Amsinckia lunaris</i>	PDBOR01070	None	None	G3	S3	1B.2
big-scale balsamroot <i>Balsamorhiza macrolepis</i>	PDAST11061	None	None	G2	S2	1B.2
Blennosperma vernal pool andrenid bee <i>Andrena blennospermatis</i>	IIHYM35030	None	None	G2	S2	
Boggs Lake hedge-hyssop <i>Gratiola heterosepala</i>	PDSCR0R060	None	Endangered	G2	S2	1B.2
brownish beaked-rush <i>Rhynchospora capitellata</i>	PMCYP0N080	None	None	G5	S1	2B.2
Burke's goldfields <i>Lasthenia burkei</i>	PDAST5L010	Endangered	Endangered	G1	S1	1B.1
burrowing owl <i>Athene cunicularia</i>	ABNSB10010	None	None	G4	S3	SSC
California alkali grass <i>Puccinellia simplex</i>	PMPOA53110	None	None	G3	S2	1B.2
California beaked-rush <i>Rhynchospora californica</i>	PMCYP0N060	None	None	G1	S1	1B.1
California freshwater shrimp <i>Syncaris pacifica</i>	ICMAL27010	Endangered	Endangered	G2	S2	
California giant salamander <i>Dicamptodon ensatus</i>	AAAAH01020	None	None	G3	S2S3	SSC
California horned lark <i>Eremophila alpestris actia</i>	ABPAT02011	None	None	G5T4Q	S4	WL
California linderiella <i>Linderiella occidentalis</i>	ICBRA06010	None	None	G2G3	S2S3	



Selected Elements by Common Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
California red-legged frog <i>Rana draytonii</i>	AAABH01022	Threatened	None	G2G3	S2S3	SSC
California tiger salamander <i>Ambystoma californiense</i>	AAAAA01180	Threatened	Threatened	G2G3	S2S3	WL
Calistoga ceanothus <i>Ceanothus divergens</i>	PDRHA04240	None	None	G2	S2	1B.2
Calistoga popcornflower <i>Plagiobothrys strictus</i>	PDBOR0V120	Endangered	Threatened	G1	S1	1B.1
Clara Hunt's milk-vetch <i>Astragalus claranus</i>	PDFAB0F240	Endangered	Threatened	G1	S1	1B.1
Coastal and Valley Freshwater Marsh <i>Coastal and Valley Freshwater Marsh</i>	CTT52410CA	None	None	G3	S2.1	
coastal triquetrella <i>Triquetrella californica</i>	NBMUS7S010	None	None	G2	S2	1B.2
Cobb Mountain lupine <i>Lupinus sericatus</i>	PDFAB2B3J0	None	None	G2?	S2?	1B.2
coho salmon - central California coast ESU <i>Oncorhynchus kisutch</i> pop. 4	AFCHA02034	Endangered	Endangered	G4	S2?	
Colusa layia <i>Layia septentrionalis</i>	PDAST5N0F0	None	None	G2	S2	1B.2
congested-headed hayfield tarplant <i>Hemizonia congesta</i> ssp. <i>congesta</i>	PDAST4R065	None	None	G5T2	S2	1B.2
Crotch bumble bee <i>Bombus crotchii</i>	IIHYM24480	None	None	G3G4	S1S2	
Cunningham Marsh cinquefoil <i>Potentilla uliginosa</i>	PDROS1B4A0	None	None	GH	SH	1A
dwarf downingia <i>Downingia pusilla</i>	PDCAM060C0	None	None	GU	S2	2B.2
ferruginous hawk <i>Buteo regalis</i>	ABNKC19120	None	None	G4	S3S4	WL
foothill yellow-legged frog <i>Rana boylei</i>	AAABH01050	None	Candidate Threatened	G3	S3	SSC
fragrant fritillary <i>Fritillaria liliacea</i>	PMLIL0V0C0	None	None	G2	S2	1B.2
Franciscan onion <i>Allium peninsulare</i> var. <i>franciscanum</i>	PMLIL021R1	None	None	G5T2	S2	1B.2
fringed myotis <i>Myotis thysanodes</i>	AMACC01090	None	None	G4	S3	
golden eagle <i>Aquila chrysaetos</i>	ABNKC22010	None	None	G5	S3	FP
golden larkspur <i>Delphinium luteum</i>	PDRAN0B0Z0	Endangered	Rare	G1	S1	1B.1



Selected Elements by Common Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
grasshopper sparrow <i>Ammodramus savannarum</i>	ABPBXA0020	None	None	G5	S3	SSC
great blue heron <i>Ardea herodias</i>	ABNGA04010	None	None	G5	S4	
hoary bat <i>Lasiurus cinereus</i>	AMACC05030	None	None	G5	S4	
holly-leaved ceanothus <i>Ceanothus purpureus</i>	PDRHA04160	None	None	G2	S2	1B.2
Jepson's leptosiphon <i>Leptosiphon jepsonii</i>	PDPLM09140	None	None	G3	S3	1B.2
Kenwood Marsh checkerbloom <i>Sidalcea oregana ssp. valida</i>	PDMAL110K5	Endangered	Endangered	G5T1	S1	1B.1
Leech's skyline diving beetle <i>Hydroporus leechi</i>	IICOL55040	None	None	G1?	S1?	
legenere <i>Legenere limosa</i>	PDCAM0C010	None	None	G2	S2	1B.1
Loch Lomond button-celery <i>Eryngium constancei</i>	PDAP10Z0W0	Endangered	Endangered	G1	S1	1B.1
long-legged myotis <i>Myotis volans</i>	AMACC01110	None	None	G5	S3	
long-styled sand-spurrey <i>Spergularia macrotheca var. longistyla</i>	PDCAR0W062	None	None	G5T2	S2	1B.2
many-flowered navarretia <i>Navarretia leucocephala ssp. plieantha</i>	PDPLM0C0E5	Endangered	Endangered	G4T1	S1	1B.2
marsh microseris <i>Microseris paludosa</i>	PDAST6E0D0	None	None	G2	S2	1B.2
Mt. Saint Helena morning-glory <i>Calystegia collina ssp. oxyphylla</i>	PDCON04032	None	None	G4T3	S3	4.2
Napa blue grass <i>Poa napensis</i>	PMPOA4Z1R0	Endangered	Endangered	G1	S1	1B.1
Napa checkerbloom <i>Sidalcea hickmanii ssp. napensis</i>	PDMAL110A6	None	None	G3T1	S1	1B.1
Napa false indigo <i>Amorpha californica var. napensis</i>	PDFAB08012	None	None	G4T2	S2	1B.2
narrow-anthered brodiaea <i>Brodiaea leptandra</i>	PMLIL0C022	None	None	G3?	S3?	1B.2
Navarro roach <i>Lavinia symmetricus navarroensis</i>	AFCJB19023	None	None	G4T1T2	S2S3	SSC
North American porcupine <i>Erethizon dorsatum</i>	AMAFJ01010	None	None	G5	S3	
North Coast semaphore grass <i>Pleuropogon hooverianus</i>	PMPOA4Y070	None	Threatened	G2	S2	1B.1



Selected Elements by Common Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Northern Hardpan Vernal Pool <i>Northern Hardpan Vernal Pool</i>	CTT44110CA	None	None	G3	S3.1	
Northern Vernal Pool <i>Northern Vernal Pool</i>	CTT44100CA	None	None	G2	S2.1	
obscure bumble bee <i>Bombus caliginosus</i>	IIHYM24380	None	None	G4?	S1S2	
osprey <i>Pandion haliaetus</i>	ABNKC01010	None	None	G5	S4	WL
oval-leaved viburnum <i>Viburnum ellipticum</i>	PDCPR07080	None	None	G4G5	S3?	2B.3
pallid bat <i>Antrozous pallidus</i>	AMACC10010	None	None	G5	S3	SSC
pappose tarplant <i>Centromadia parryi ssp. parryi</i>	PDAST4R0P2	None	None	G3T2	S2	1B.2
Peruvian dodder <i>Cuscuta obtusiflora var. glandulosa</i>	PDCUS01111	None	None	G5T4T5	SH	2B.2
Pitkin Marsh lily <i>Lilium pardalinum ssp. pitkinense</i>	PMLIL1A0H3	Endangered	Endangered	G5T1	S1	1B.1
Pitkin Marsh paintbrush <i>Castilleja uliginosa</i>	PDSCR0D380	None	Endangered	GXQ	SX	1A
red-bellied newt <i>Taricha rivularis</i>	AAAAF02020	None	None	G4	S2	SSC
Ricksecker's water scavenger beetle <i>Hydrochara rickseckeri</i>	IICOL5V010	None	None	G2?	S2?	
Rincon Ridge ceanothus <i>Ceanothus confusus</i>	PDRHA04220	None	None	G1	S1	1B.1
Rincon Ridge manzanita <i>Arctostaphylos stanfordiana ssp. decumbens</i>	PDERI041G4	None	None	G3T1	S1	1B.1
round-headed beaked-rush <i>Rhynchospora globularis</i>	PMCYP0N0W0	None	None	G4	S1	2B.1
Russian River tule perch <i>Hysterocarpus traskii pomo</i>	AFCQK02011	None	None	G5T4	S4	SSC
saline clover <i>Trifolium hydrophilum</i>	PDFAB400R5	None	None	G2	S2	1B.2
Santa Cruz clover <i>Trifolium buckwestiorum</i>	PDFAB402W0	None	None	G2	S2	1B.1
Sebastopol meadowfoam <i>Limnanthes vincularis</i>	PDLIM02090	Endangered	Endangered	G1	S1	1B.1
sharp-shinned hawk <i>Accipiter striatus</i>	ABNKC12020	None	None	G5	S4	WL
slender silver moss <i>Anomobryum julaceum</i>	NBMUS80010	None	None	G5?	S2	4.2



Selected Elements by Common Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Sonoma alopecurus <i>Alopecurus aequalis</i> var. <i>sonomensis</i>	PMPOA07012	Endangered	None	G5T1	S1	1B.1
Sonoma beardtongue <i>Penstemon newberryi</i> var. <i>sonomensis</i>	PDSCR1L483	None	None	G4T2	S2	1B.3
Sonoma ceanothus <i>Ceanothus sonomensis</i>	PDRHA04420	None	None	G2	S2	1B.2
Sonoma spineflower <i>Chorizanthe valida</i>	PDPGN040V0	Endangered	Endangered	G1	S1	1B.1
Sonoma sunshine <i>Blennosperma bakeri</i>	PDAST1A010	Endangered	Endangered	G1	S1	1B.1
steelhead - central California coast DPS <i>Oncorhynchus mykiss irideus</i> pop. 8	AFCHA0209G	Threatened	None	G5T2T3Q	S2S3	
swamp harebell <i>Campanula californica</i>	PDCAM02060	None	None	G3	S3	1B.2
thin-lobed horkelia <i>Horkelia tenuiloba</i>	PDROS0W0E0	None	None	G2	S2	1B.2
Thurber's reed grass <i>Calamagrostis crassiglumis</i>	PMPOA17070	None	None	G3Q	S2	2B.1
Tomales isopod <i>Caecidotea tomalensis</i>	ICMAL01220	None	None	G2	S2S3	
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	AMACC08010	None	None	G3G4	S2	SSC
tricolored blackbird <i>Agelaius tricolor</i>	ABPBXB0020	None	Candidate Endangered	G2G3	S1S2	SSC
two-fork clover <i>Trifolium amoenum</i>	PDFAB40040	Endangered	None	G1	S1	1B.1
Valley Needlegrass Grassland <i>Valley Needlegrass Grassland</i>	CTT42110CA	None	None	G3	S3.1	
Vine Hill ceanothus <i>Ceanothus foliosus</i> var. <i>vineatus</i>	PDRHA040D6	None	None	G3T1	S1	1B.1
Vine Hill clarkia <i>Clarkia imbricata</i>	PDONA050K0	Endangered	Endangered	G1	S1	1B.1
Vine Hill manzanita <i>Arctostaphylos densiflora</i>	PDERI040C0	None	Endangered	G1	S1	1B.1
western bumble bee <i>Bombus occidentalis</i>	IIHYM24250	None	None	G2G3	S1	
western pond turtle <i>Emys marmorata</i>	ARAAD02030	None	None	G3G4	S3	SSC
western red bat <i>Lasiurus blossevillii</i>	AMACC05060	None	None	G5	S3	SSC
western yellow-billed cuckoo <i>Coccyzus americanus occidentalis</i>	ABNRB02022	Threatened	Endangered	G5T2T3	S1	



Selected Elements by Common Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
white beaked-rush <i>Rhynchospora alba</i>	PMCYP0N010	None	None	G5	S2	2B.2
white-tailed kite <i>Elanus leucurus</i>	ABNKC06010	None	None	G5	S3S4	FP
woolly-headed gilia <i>Gilia capitata ssp. tomentosa</i>	PDPLM040B9	None	None	G5T1	S1	1B.1
yellow rail <i>Coturnicops noveboracensis</i>	ABNME01010	None	None	G4	S1S2	SSC
Yuma myotis <i>Myotis yumanensis</i>	AMACC01020	None	None	G5	S4	

Record Count: 107



Plant List

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

Search Criteria

California Rare Plant Rank is one of [1A, 1B, 2A, 2B, 3, 4], Found in Quads 3812257, 3812256, 3812255, 3812247, 3812246, 3812245, 3812237, 3812236 and 3812235;

[Modify Search Criteria](#)
[Export to Excel](#)
[Modify Columns](#)
[Modify Sort](#)
[Remove Photos](#)

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank	Photo
Allium peninsulare var. franciscanum	Franciscan onion	Alliaceae	perennial bulbiferous herb	(Apr)May-Jun	1B.2	S2	G5T2	 <p>2007 Toni Corelli</p>
Alopecurus aequalis var. sonomensis	Sonoma alopecurus	Poaceae	perennial herb	May-Jul	1B.1	S1	G5T1	 <p>2010 Robert Steers/NPS</p>
Amorpha californica var. napensis	Napa false indigo	Fabaceae	perennial deciduous shrub	Apr-Jul	1B.2	S2	G4T2	



2014 Zoya Akulova

<u>Amsinckia lunaris</u>	bent-flowered fiddleneck	Boraginaceae	annual herb	Mar-Jun	1B.2	S3	G3
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2011 Neal Kramer

<u>Anomobryum julaceum</u>	slender silver moss	Bryaceae	moss		4.2	S2	G5?
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no photo available

<u>Arctostaphylos densiflora</u>	Vine Hill manzanita	Ericaceae	perennial evergreen shrub	Feb-Apr	1B.1	S1	G1
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2012 Aaron Arthur

<u>Arctostaphylos stanfordiana ssp. decumbens</u>	Rincon Ridge manzanita	Ericaceae	perennial evergreen shrub	Feb- Apr(May)	1B.1	S1	G3T1
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2012 Aaron Arthur

<u>Astragalus breweri</u>	Brewer's milk-vetch	Fabaceae	annual herb	Apr-Jun	4.2	S3	G3
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1996 Doreen L. Smith

Astragalus claranusClara Hunt's milk-
vetch

Fabaceae

annual herb

Mar-May

1B.1

S1

G1



2011 Jake Ruygt

Balsamorhiza macrolepis

big-scale balsamroot

Asteraceae

perennial herb

Mar-Jun

1B.2

S2

G2



1998 Dean Wm. Taylor

Blennosperma bakeri

Sonoma sunshine

Asteraceae

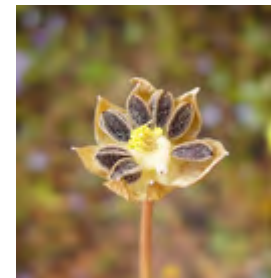
annual herb

Mar-May

1B.1

S1

G1



2010 Zoya Akulova

Brodiaea leptandranarrow-anthered
brodiaea

Themidaceae

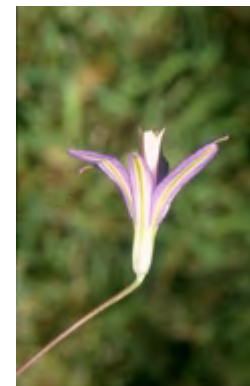
perennial bulbiferous
herb

May-Jul

1B.2

S3?

G3?



2004 Robert E.
Preston, Ph.D.

Calamagrostis bolanderi

Bolander's reed grass Poaceae

perennial rhizomatous
herb

May-Aug

4.2

S4

G4



2009 Zoya Akulova

Calamagrostis
crassiglumis

Thurber's reed grass Poaceae

perennial rhizomatous
herb

May-Aug

2B.1

S2

G3Q



2013 Vernon Smith

Calamagrostis ophitidis

serpentine reed grass Poaceae

perennial herb

Apr-Jul

4.3

S3

G3



2003 Doreen L. Smith

Calandrinia breweri

Brewer's calandrinia

Montiaceae

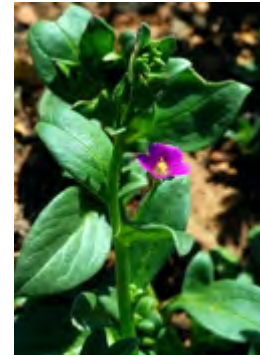
annual herb

(Jan)Mar-
Jun

4.2

S4

G4



2009 Barry Breckling

Calochortus uniflorus

pink star-tulip

Liliaceae

perennial bulbiferous
herb

Apr-Jun

4.2

S4

G4



2008 Keir Morse

Calystegia collina ssp.
oxyphyllaMt. Saint Helena
morning-glory

Convolvulaceae

perennial rhizomatous
herb

Apr-Jun

4.2

S3

G4T3



2011 Vernon Smith

Campanula californica

swamp harebell

Campanulaceae

perennial rhizomatous

Jun-Oct

1B.2

S3

G3

herb



Rick York and CNPS

Castilleja ambigua var. ambigua

johnny-nip

Orobanchaceae

annual herb
(hemiparasitic)

Mar-Aug

4.2

S4

G4T5



2010 Toni Corelli

Castilleja uliginosa

Pitkin Marsh
paintbrush

Orobanchaceae

perennial herb
(hemiparasitic)

Jun-Jul

1A

SX

GXQ

Jo-Ann Ordano2004
California Academy of
Sciences

Ceanothus confusus

Rincon Ridge
ceanothus

Rhamnaceae

perennial evergreen
shrub

Feb-Jun

1B.1

S1

G1



2006 Barrett Jeffery

Ceanothus divergens

Calistoga ceanothus

Rhamnaceae

perennial evergreen
shrub

Feb-Apr

1B.2

S2

G2

Ceanothus foliosus var. vineatus

Vine Hill ceanothus

Rhamnaceae

perennial evergreen shrub

Mar-May

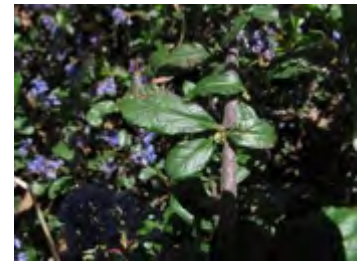
1B.1

S1

G3T1



2006 Steve Matson



2012 Aaron Arthur

Ceanothus gloriosus var. exaltatus

glory brush

Rhamnaceae

perennial evergreen shrub

Mar-Jun(Aug)

4.3

S4

G4T4



2010 Neal Kramer

Ceanothus purpureus

holly-leaved ceanothus

Rhamnaceae

perennial evergreen shrub

Feb-Jun

1B.2

S2

G2



2008 Jorg Fleige

Ceanothus sonomensis

Sonoma ceanothus

Rhamnaceae

perennial evergreen shrub

Feb-Apr

1B.2

S2

G2



1998 Dean Wm. Taylor

[Centromadia parryi ssp. parryi](#)

pappose tarplant

Asteraceae

annual herb

May-Nov

1B.2

S2

G3T2



2007 Christopher Bronny

[Chorizanthe valida](#)

Sonoma spineflower

Polygonaceae

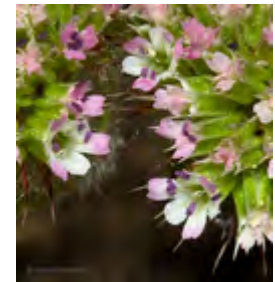
annual herb

Jun-Aug

1B.1

S1

G1



2008 Aaron Schusteff

[Clarkia breweri](#)

Brewer's clarkia

Onagraceae

annual herb

Apr-Jun

4.2

S4

G4



2011 Aaron Schusteff

[Clarkia imbricata](#)

Vine Hill clarkia

Onagraceae

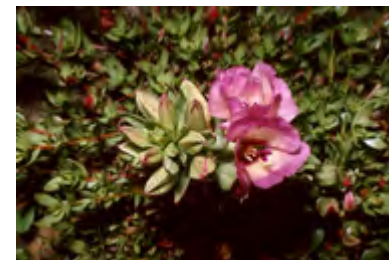
annual herb

Jun-Aug

1B.1

S1

G1



Harlan Lewis and CNPS

[Cordylanthus tenuis ssp. brunneus](#)

serpentine bird's-beak

Orobanchaceae

annual herb
(hemiparasitic)

Jul-Aug

4.3

S3

G4G5T3



2009 Aaron Arthur

[Cordylanthus tenuis ssp. capillaris](#)

Pennell's bird's-beak

Orobanchaceae

annual herb
(hemiparasitic)

Jun-Sep

1B.2

S1

G4G5T1



2009 Aaron Arthur

[Cuscuta obtusiflora var. glandulosa](#)

Peruvian dodder

Convolvulaceae

annual vine (parasitic)

Jul-Oct

2B.2

SH

G5T4T5

no photo available

[Cypripedium montanum](#)

mountain lady's-slipper

Orchidaceae

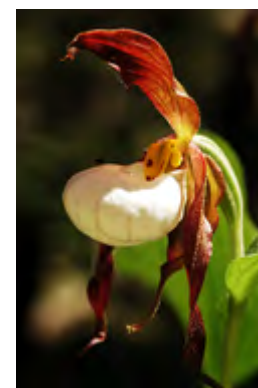
perennial rhizomatous
herb

Mar-Aug

4.2

S4

G4



2007 Chris Winchell

[Delphinium luteum](#)

golden larkspur

Ranunculaceae

perennial herb

Mar-May

1B.1

S1

G1



2010 Charles Patterson

[Downingia pusilla](#)

dwarf downingia

Campanulaceae

annual herb

Mar-May

2B.2

S2

GU



2011 Dylan Neubauer

[Erigeron biolettii](#)

streamside daisy

Asteraceae

perennial herb

Jun-Oct

3

S3?

G3?



2003 Doreen L. Smith

[Erigeron serpentinus](#)

serpentine daisy

Asteraceae

perennial herb

May-Aug

1B.3

S2

G2



2011 Tony Morosco

Eriophorum gracile

slender cottongrass

Cyperaceae

perennial rhizomatous
herb (emergent)

May-Sep

4.3

S4

G5



2006 Steve Matson

Eryngium constanceiLoch Lomond button-
celery

Apiaceae

annual / perennial herb

Apr-Jun

1B.1

S1

G1



2012 Aaron Arthur

Fritillaria liliacea

fragrant fritillary

Liliaceae

perennial bulbiferous
herb

Feb-Apr

1B.2

S2

G2



2009 Shawn DeCew

Gilia capitata ssp.
tomentosa

woolly-headed gilia

Polemoniaceae

annual herb

May-Jul

1B.1

S1

G5T1



2008 Vernon Smith

Gratiola heterosepalaBoggs Lake hedge-
hyssop

Plantaginaceae

annual herb

Apr-Aug

1B.2

S2

G2



2004 Carol W. Witham

[Hemizonia congesta ssp. congesta](#)

congested-headed
hayfield tarplant

Asteraceae

annual herb

Apr-Nov

1B.2

S2

G5T2



2015 John Doyen

[Hesperervax caulescens](#)

hogwallow starfish

Asteraceae

annual herb

Mar-Jun

4.2

S3

G3



2009 Barry Rice

[Horkelia tenuiloba](#)

thin-lobed horkelia

Rosaceae

perennial herb

May-
Jul(Aug)

1B.2

S2

G2



2012 Aaron Arthur

[Hosackia gracilis](#)

harlequin lotus

Fabaceae

perennial rhizomatous
herb

Mar-Jul

4.2

S3

G3G4



2000 Joseph
Dougherty/ecology.org

[Iris longipetala](#)

coast iris

Iridaceae

perennial rhizomatous
herb

Mar-May

4.2

S3

G3



2014 Aaron Schusteff

[Lasthenia burkei](#)

Burke's goldfields

Asteraceae

annual herb

Apr-Jun

1B.1

S1

G1



2002 John Game

[Lasthenia californica ssp. bakeri](#)

Baker's goldfields

Asteraceae

perennial herb

Apr-Oct

1B.2

S1

G3T1



2015 Asa Spade

[Lasthenia conjugens](#)

Contra Costa
goldfields

Asteraceae

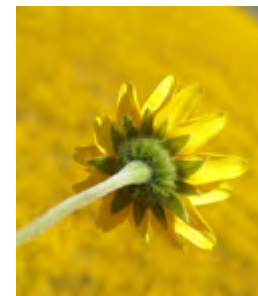
annual herb

Mar-Jun

1B.1

S1

G1



2009 Zoya Akulova

Layia septentrionalis

Colusa layia

Asteraceae

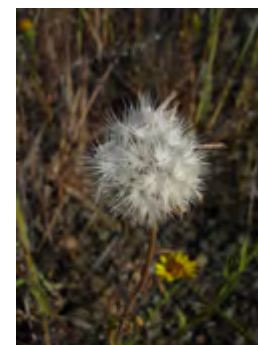
annual herb

Apr-May

1B.2

S2

G2



2008 Aaron Arthur

Legenere limosa

legenere

Campanulaceae

annual herb

Apr-Jun

1B.1

S2

G2



1993 Dean Wm. Taylor

Leptosiphon acicularis

bristly leptosiphon

Polemoniaceae

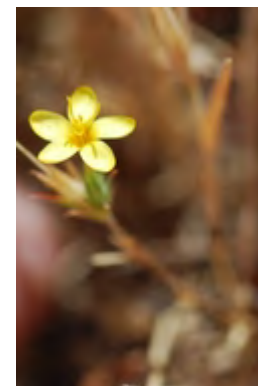
annual herb

Apr-Jul

4.2

S4?

G4?



2009 Genevieve K.

Walden

[Leptosiphon jepsonii](#)

Jepson's leptosiphon

Polemoniaceae

annual herb

Mar-May

1B.2

S3

G3

2009 Bob Patterson
and CNPS[Lessingia hololeuca](#)woolly-headed
lessingia

Asteraceae

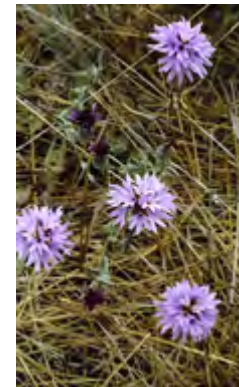
annual herb

Jun-Oct

3

S3?

G3?



2006 Doreen L. Smith

[Lilium pardalinum ssp.
pitkinense](#)

Pitkin Marsh lily

Liliaceae

perennial bulbiferous
herb

Jun-Jul

1B.1

S1

G5T1

Jo-Ann Ordano 2005
California Academy of
Sciences[Lilium rubescens](#)

redwood lily

Liliaceae

perennial bulbiferous

Apr-

4.2

S3

G3

herb

Aug(Sep)



2014 Sierra Pacific Industries

[Limnanthes vinculans](#)Sebastopol
meadowfoam

Limnanthaceae

annual herb

Apr-May

1B.1

S1

G1

Jo-Ann Ordano 2005
California Academy of
Sciences[Lomatium repostum](#)

Napa lomatium

Apiaceae

perennial herb

Mar-Jun

4.3

S3

G3



2006 Jeffery Barrett

[Lupinus sericatus](#)

Cobb Mountain lupine

Fabaceae

perennial herb

Mar-Jun

1B.2

S2?

G2?



2012 Aaron Arthur

[Micropus amphibolus](#)Mt. Diablo
cottonweed

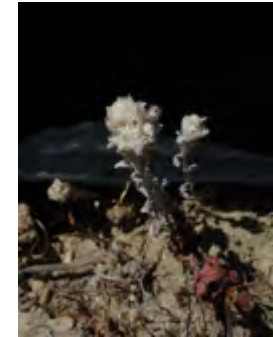
Asteraceae

annual herb

Mar-May

3.2

S3S4 G3G4



2008 Aaron Arthur

[Microseris paludosa](#)

marsh microseris

Asteraceae

perennial herb

Apr-
Jun(Jul)

1B.2

S2 G2



2013 Vernon Smith

[Monardella viridis](#)

green monardella

Lamiaceae

perennial rhizomatous
herb

Jun-Sep

4.3

S3 G3



1999 Dean Wm. Taylor

[Navarretia cotulifolia](#)

cotula navarretia

Polemoniaceae

annual herb

May-Jun

4.2

S4 G4



2004 Adele Wikner

[Navarretia heterandra](#)

Tehama navarretia

Polemoniaceae

annual herb

Apr-Jun

4.3

S4

G4

2008 Steve Matson

[Navarretia leucocephala](#)
[ssp. bakeri](#)

Baker's navarretia

Polemoniaceae

annual herb

Apr-Jul

1B.1

S2

G4T2

2003 Doreen L. Smith

[Navarretia leucocephala](#)
[ssp. plieantha](#)many-flowered
navarretia

Polemoniaceae

annual herb

May-Jun

1B.2

S1

G4T1

no photo available

[Penstemon newberryi var.](#)
[sonomensis](#)

Sonoma beardtongue

Plantaginaceae

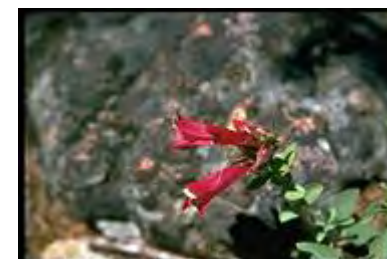
perennial herb

Apr-Aug

1B.3

S2

G4T2

1995 Saint Mary's College of
California[Perideridia gairdneri ssp.](#)
[gairdneri](#)

Gairdner's yampah

Apiaceae

perennial herb

Jun-Oct

4.2

S3S4

G5T3T4



2007 Neal Kramer

Plagiobothrys strictusCalistoga
popcornflower

Boraginaceae

annual herb

Mar-Jun

1B.1

S1

G1



2013 Jake Ruygt

Pleuropogon hooverianusNorth Coast
semaphore grass

Poaceae

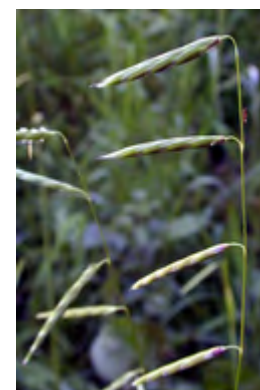
perennial rhizomatous
herb

Apr-Jun

1B.1

S2

G2

2001 Bart and Susan
EisenbergPleuropogon refractusnodding semaphore
grass

Poaceae

perennial rhizomatous
herb(Mar)Apr-
Aug

4.2

S4

G4



2004 Dean Wm. Taylor

Poa napensis

Napa blue grass

Poaceae

perennial herb

May-Aug

1B.1

S1

G1

no photo available

Potentilla uliginosaCunningham Marsh
cinquefoil

Rosaceae

perennial herb

May-Aug

1A

SH

GH

no photo available

Puccinellia simplex

California alkali grass

Poaceae

annual herb

Mar-May

1B.2

S2

G3

no photo available

Ranunculus lobbiiLobb's aquatic
buttercup

Ranunculaceae

annual herb (aquatic)

Feb-May

4.2

S3

G4



2008 Jorg Fleige

[Rhynchospora alba](#)

white beaked-rush

Cyperaceae

perennial rhizomatous
herb

Jun-Aug

2B.2

S2

G5



1996 Dean Wm. Taylor

[Rhynchospora californica](#)California beaked-
rush

Cyperaceae

perennial rhizomatous
herb

May-Jul

1B.1

S1

G1



2002 Kristiaan Stuart

[Rhynchospora capitellata](#)brownish beaked-
rush

Cyperaceae

perennial herb

Jul-Aug

2B.2

S1

G5



2010 Aaron Arthur

[Rhynchospora globularis](#)round-headed
beaked-rush

Cyperaceae

perennial rhizomatous
herb

Jul-Aug

2B.1

S1

G4



2004 Steve Matson

[Sidalcea hickmanii ssp. napensis](#)

Napa checkerbloom

Malvaceae

perennial herb

Apr-Jun

1B.1

S1

G3T1



2011 Jake Ruygt

[Sidalcea oregana ssp. valida](#)

Kenwood Marsh
checkerbloom

Malvaceae

perennial rhizomatous
herb

Jun-Sep

1B.1

S1

G5T1

2010 US Fish & Wildlife
Service

[Spergularia macrotheca
var. longistyla](#)

long-styled sand-
spurrey

Caryophyllaceae

perennial herb

Feb-May

1B.2

S2

G5T2

no photo available

[Trifolium amoenum](#)

two-fork clover

Fabaceae

annual herb

Apr-Jun

1B.1

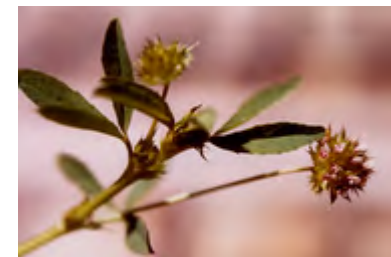
S1

G1



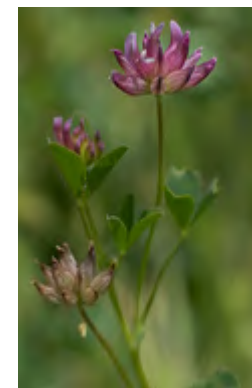
2009 Doreen L. Smith

<u>Trifolium buckwestiorum</u>	Santa Cruz clover	Fabaceae	annual herb	Apr-Oct	1B.1	S2	G2
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1997 Doreen L. Smith

<u>Trifolium hydrophilum</u>	saline clover	Fabaceae	annual herb	Apr-Jun	1B.2	S2	G2
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2005 Aaron Schusteff

<u>Triquetrella californica</u>	coastal triquetrella	Pottiaceae	moss		1B.2	S2	G2
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no photo available

<u>Viburnum ellipticum</u>	oval-leaved viburnum	Adoxaceae	perennial deciduous shrub	May-Jun	2B.3	S3?	G4G5
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2006 Tom Engstrom

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Attachment D. Representative Photographs



Photograph 1. View facing northwest from Sixth Street towards Morgan Street at tree number 24 (slated for removal) located in representative urban and barren habitats within the study area. (November 20, 2018).



Photograph 2. View facing north on A Street toward Seventh Street at tree number 36 (slated for removal) at the western boundary of the study area. (November 20, 2018).



Photograph 3. . View facing west within the paved parking lot (i.e. barren habitat) toward tree numbers 57-60 slated for removal within the project area. (November 20, 2018).



Photograph 4. View facing north from Seventh Street toward proposed relocation home area currently managed as a garden (November 20, 2018).

Attachment E. Species Observed During Survey

Wildlife Species Observed During Site Visit

Common Name	Scientific Name
California scrub jay	<i>Aphelocoma californica</i>
Ground squirrel	<i>Otospermophilus sp.</i>
European starling	<i>Sturnus vulgaris</i>
American robin	<i>Turdus migratorius</i>
Mourning dove	<i>Zenaida macroura</i>

Plant Species Observed During Site Visit

Common name	Scientific Name
Japanese maple	<i>Acer palmatum</i>
Red maple	<i>Acer rubrum</i>
Wild oats	<i>Avena sp.</i>
Tree of heaven	<i>Ailanthus altissima</i>
Incense cedar	<i>Calocedrus decurrens</i>
Bottlebrush	<i>Callistemon citrinus</i>
Hackberry	<i>Celtis australis</i>
Cabbage tree	<i>Cordyline australis</i>
California poppy	<i>Eschscholzia californica</i>
English walnut	<i>Juglans regia.</i>
Landscaped iris	<i>Iris sp.</i>
Crepe myrtle	<i>Lagerstroemia indica</i>
Glossy privet	<i>Ligustrum lucidum</i>
Tulip tree	<i>Liriodendron tulipifera</i>
Apple	<i>Malus domestica</i>
Cheeseweed	<i>Malva parviflora</i>
Fruitless mulberry	<i>Morus alba</i>
Olive	<i>Olea europaea</i>
Flowering pear	<i>Pyrus calleryana</i>
Plum	<i>Prunus domestica</i>
Fern pine	<i>Podocarpus gracilior</i>
Lombardy poplar	<i>Populus nigra (Italica)</i>
Coast live oak	<i>Quercus agrifolia</i>
Mexican fan palm	<i>Washingtonia robusta</i>

Attachment F. Special-Status Species Tables

Table 1: Special-Status Plants with Potential to Occur in the Study Area

Common Name Scientific Name	Status ¹ (Fed/State/CR PR)	Habitat Requirements	Potential for Occurrence in the Study Area ²
Sonoma alopecurus <i>Alopecurus aequalis</i> var. <i>sonomensis</i>	FE/--/1B.1	Marshes and swamps (freshwater); riparian scrub. Elevation: 15-1,200 feet. Bloom: May-July	Absent. Marsh, swamp and riparian scrub habitats to support the species are not present in the study area.
Vine Hill manzanita <i>Arctostaphylos densiflora</i>	--/SE/1B.1	Chaparral (acid marine sand). Elevation: 160-395 feet. Bloom: Feb.-Apr.	Absent. Chaparral habitat to support the species is not present in the study area. .
Clara Hunt's milk-vetch <i>Astragalus claranus</i>	FE/ST/1B.1	Chaparral; cismontane woodland; valley and foothill grassland, often serpentine soils. Elevation: 245-900 feet. Bloom: Mar.-May	Absent. Serpentine soil habitats to support the species are not present in the study area.
Sonoma Sunshine <i>Blennosperma bakeri</i>	FE/SE/1B.1	Vernal pools; valley and foothill grassland (often mesic). Elevation: 30-360 feet. Bloom: Mar.-May	Absent. Vernal pool and valley foothill grassland habitats to support the species are not present in the study area.
Pitkin Marsh paintbrush <i>Castilleja uliginosa</i>	--/SE/1A	Marshes and swamps (freshwater). Elevation: 785 feet. Bloom: Jun.-Jul.	Absent. Marsh and swamp habitats to support the species are not present in the study area.
White sedge <i>Carex albida</i>	FE/--	Marshes and swamps (freshwater); meadows and seeps. Elevation: 150-200 feet. Bloom: May-Jul.	Absent. Marsh and swamp, meadow and seep habitats to support the species are not present in the study area.
Sonoma Spineflower <i>Chorizanthe valida</i>	FE/SE/1B.1	Coastal prairie (sandy). Elevation: 30-1,000 feet. Bloom: Jun.-Aug.	Absent. Coastal prairie habitat to support the species is not present in the study area. .
Vine Hill clarkia <i>Clarkia imbricata</i>	FE/SE/1B.1	Chaparral; valley and foothill grassland, often acidic sandy loam soils. Elevation: 160-245 feet. Bloom: Jun.-Aug.	Absent. Chaparral, valley and foothill grassland habitats to support the species are not present in the study area.
Pennell's bird's-beak <i>Cordylanthus tenuis</i> ssp. <i>capillaris</i>	FE/SR/1B.2	Closed-cone coniferous forest; chaparral, often serpentine soils. Elevation: 145-1,000 feet. Bloom: Jun.- Sep.	Absent. Serpentine soil habitats to support the species are not present in the study area.

Common Name Scientific Name	Status ¹ (Fed/State/CR PR)	Habitat Requirements	Potential for Occurrence in the Study Area ²
Golden larkspur <i>Delphinium luteum</i>	FE/SR/1B.1	Chaparral; coastal prairie; coastal scrub, often rocky substrates. Elevation: 0-330 feet. Bloom: Mar.-May	Absent. Chaparral, coastal prairie, coastal scrub habitats to support the species are not present in the study area.
Loch Lomond button- celery <i>Eryngium constancei</i>	FE/SE/1B.1	Vernal pools. Elevation: 1,505-2,805 feet. Bloom: Apr.-Jun.	Absent. Vernal pool habitat to support the species is not present in the study area
Boggs Lake hedge- hyssop <i>Gratiola heterosepala</i>	--/SE/1B.2	Marshes and swamps (lake margins); vernal pools, often clay soils. Elevation: 30-7,790 feet. Bloom: Apr.-Aug.	Absent. Marsh and swamp and vernal poo habitats to support the species are not present in the study area.
Burke's goldfields <i>Lasthenia burkei</i>	FE/SE/1B.1	Meadows and seeps (mesic); vernal pools. Elevation: 45- 1,970 feet. Bloom: Apr.-Jun.	Absent. Meadow and seep and vernal pool habitats to support the species are not present in the study area.
Contra Costa goldfields <i>Lasthenia conjugens</i>	FE/--/1B.1	Cismontane woodland; playas (alkaline); valley and foothill grassland; vernal pools, often mesic. Elevation: 0- 1,540 feet. Bloom: Mar.-Jun.	Absent. Vernal mesic habitats to support the species are not present in the study area.
Pitkin Marsh lily <i>Lilium pardalinum ssp.</i> <i>pitkinense</i>	FE/SE/1B.1	Cismontane woodland; meadows and seeps; marshes and swamps (freshwater), often mesic, sandy substrates. Elevation: 110-215 feet. Bloom: Jun.-Jul.	Absent. Mesic habitats to support the species are not present in the study area.
Sebastopol meadowfoam <i>Limnanthes vinculans</i>	FE/SE/1B.1	Closed-cone coniferous forest; chaparral, often serpentine soils. Elevation: 45-1,000 feet. Bloom: Apr.- May.	Absent. Serpentine soil habitats to support the species are not present in the study area.
Many-flowered navarretia <i>Navarretia</i> <i>leucocephala ssp.</i> <i>plieantha</i>	FE/SE/1B.2	Vernal pools (volcanic ash flow). Elevation: 95-3115 feet. Bloom: May- Jun.	Absent. Vernal pool habitat to support the species is not present in the study area.
Calistoga popcornflower <i>Plagiobothrys strictus</i>	FE/ST/1B.1	Meadows and seeps; valley and foothill grassland; vernal pools; often alkaline areas near thermal springs. Elevation: 295-525 feet. Bloom: Mar.-Jun.	Absent. Alkaline soils and mesic habitats to support the species are not present in the study area.

Common Name Scientific Name	Status ¹ (Fed/State/CR PR)	Habitat Requirements	Potential for Occurrence in the Study Area ²
North Coast semaphore grass <i>Pleuropogon hooverianus</i>	--/ST/1B.1	Broad-leaved upland forest; meadows and seeps; North Coast coniferous forest. Elevation: <4,200 feet. Bloom: Apr.-Jun.	Absent. Broad-leaved upland forest, meadow and seep, North Coast coniferous forest habitats to support the species are not present in the study area.
Napa blue grass <i>Poa napensis</i>	FE/SE/1B.1	Meadows and seeps; valley and foothill grassland, often alkaline areas near thermal springs. Elevation: 325-655 feet. Bloom: May- Aug.	Absent. Alkaline soils and mesic habitats to support the species are not present in the study area.
Kenwood Marsh checkerbloom <i>Sidalcea oregana ssp. valida</i>	FE/SE/1B.1	Meadows and seeps (freshwater). Elevation: 375- 490 feet. Bloom: Jun.- Sep.	Absent. Meadow and seep habitats to support the species are not present in the study area.
Two-fork clover <i>Trifolium amoenum</i>	FE/--/1B.1	Coastal bluff scrub, Valley and foothill grassland, sometimes serpentine soils. Elevation: 15- 1,360 feet. Bloom: Apr.-Jun.	Absent. Serpentine soil habitats to support the species are not present in the study area.

Notes:

¹ Federal and State Status Codes: Federal Endangered (FE), State Endangered (SE), State Threatened (ST), State Rare (SR).

CRPR Codes and Extensions:

1A Species presumed extinct in California

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

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

Extensions

xx.2 Fairly endangered in California

xx.1 Seriously endangered in California

²The likelihood of occurrence (Present, High, Moderate, Low, Absent, Not Present) is based on species specific habitat requirements and range and were applied by using the following general guidelines specified in Section 3.

Table 2: Special-Status Animals with Potential to Occur in the Study Area

Common Name Scientific Name	Status ¹ (Fed/State)	Habitat Requirements	Potential for Occurrence in the Study Area ²
Invertebrates			
California freshwater shrimp <i>Syncaris pacifica</i>	FE/SE	Requires small, perennial coastal streams, typically found in low-elevation, low-gradient streams.	Absent. Aquatic habitat to support this species is absent from the study area.
San Bruno Elfin butterfly <i>Callophrys mossii bayensis</i>	FE/--	Inhabits rocky outcrops and cliffs in coastal scrub.	Absent. Rocky outcrops and cliff habitats to support this species are absent from the study area.
Amphibians			
California red-legged frog <i>Rana draytonii</i>	FT/SSC	Requires perennial or near-perennial aquatic habitats, especially for breeding: often slow-moving streams, freshwater pools and ponds, with overhanging vegetation; adjacent upland habitats are often used for temporary refuges or dispersal movements.	Absent. Aquatic and adjacent upland habitats to support this species are absent from the study area.
California tiger salamander <i>Ambystoma californiense</i>	FT/ST	Requires seasonally inundated aquatic habitats: ponds, wetlands, and vernal pools for breeding with associated upland terrestrial habitat. Utilizes small mammal burrows within upland habitat.	Absent. Seasonally inundated and adjacent upland habitats to support this species are absent from the study area.
Foothill yellow-legged frog <i>Rana boylei</i>	--/SCT	Requires perennial, partly shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg laying. Frogs may be active all year in warm localities and become inactive or hibernate in colder areas.	Absent. Aquatic and adjacent upland habitats to support this species are absent from the study area.
California giant salamander <i>Dicamptodon ensatus</i>	--/SSC	Typically found in or near streams, lakes and ponds in damp forests and riparian habitats.	Absent. Aquatic, forest, and riparian areas to support this species are absent from the study area.
Red-bellied newt <i>Taricha rivularis</i>	--/SSC	Typically inhabits redwood forests, but also found within mixed conifer, valley-foothill woodland, montane hardwood, and hardwood-conifer habitats; migrates to streams during fall and winter rains.	Absent. Forest, hardwood, valley-foothill woodland or aquatic habitats to support this species are absent from the study area.
Reptiles			
Green sea turtle <i>Chelonia mydas</i>	FT & FE/--	Inhabits shallow, brackish waters of lagoons, bays, estuaries, typically with abundant aquatic vegetation.	Absent. Aquatic habitat to support this species is absent from the study area.

Common Name Scientific Name	Status ¹ (Fed/State)	Habitat Requirements	Potential for Occurrence in the Study Area ²
Western pond turtle <i>Emys marmorata</i>	--/SSC	Inhabits slow water aquatic habitat with available basking sites. Hatchlings require shallow water with dense submergent or short emergent vegetation. Require an upland oviposition site in the vicinity of the aquatic site.	Absent. Aquatic and adjacent upland habitats to support this species are absent from the study area.
Fish			
Delta smelt <i>Hypomesus transpacificus</i>	FT/--	Inhabits the Sacramento-San Joaquin Delta estuary in open, shallow, low-salinity (<10 ‰) waters. Spawns in middle and upper reaches of Delta from late-winter to spring.	Absent. Aquatic habitats to support this species are absent from the study area.
Russian river tule perch <i>Hysterocarpus traskii pomo</i>	--/SCC	Requires clear, flowing water, usually with aquatic, submerged or overhanging vegetation; confined to the Russian River and its tributaries.	Absent. Aquatic habitats to support this species are absent from the study area.
Navarro roach <i>Lavinia symmetricus navarroensis</i>	--/SSC	Inhabits coastal to mountain foothill streams, typically found in small warm streams but can tolerate colder streams as well. Requires gravel beds and riffles for spawning.	Absent. Aquatic habitats to support this species are absent from the study area.
Central California coast ESU Coho salmon <i>Oncorhynchus kisutch</i>	FE/SE	Spawns and rears in with coastal low-gradient reaches of tributary streams; requires small coastal streams and rivers.	Absent. Aquatic habitats to support the species are absent in the study area.
Steelhead, California Central Valley DPS <i>Oncorhynchus mykiss irideus</i>	FT/--	Spawn and rear in Sacramento River and its tributaries. Require cool, swift shallow water; clean, loose gravel for spawning; and runs and suitable large pools in which to rear and over-summer.	Absent. Aquatic habitats to support this species are absent from the study area.
Birds			
Tricolored blackbird <i>Agelaius tricolor</i>	--/SCE	Breeds near fresh water in dense emergent vegetation. Requires open water, protected nesting substrate, and foraging area with insect prey within a few kilometers of the colony.	Absent. Fresh emergent vegetation habitat to support this species is absent from the study area.
Grasshopper sparrow <i>Ammodramus savannarum</i>	--/SSC	Nests in short to middle-height, moderately open grasslands with scattered shrubs.	Absent. Grassland habitats to support this species are absent from the study area.
Burrowing owl <i>Athene cunicularia</i>	--/SSC	Nests in grasslands and sometimes agricultural lands and ruderal habitats. Uses mammal burrows or other suitable underground cavities.	Absent. Grassland habitats and mammal burrows or other suitable underground cavities are absent from the highly paved and/or urban study area. The study area is surrounded by urban development and is highly disturbed.

Common Name Scientific Name	Status ¹ (Fed/State)	Habitat Requirements	Potential for Occurrence in the Study Area ²
Golden eagle <i>Aquila chrysaetos</i>	--/FP	Inhabit forests, canyons, shrublands, grasslands and oak woodlands.	Absent. Forest, canyon, shrubland, grassland and oak woodland habitats to support this species are absent from the study area.
Northern spotted owl <i>Strix occidentalis caurina</i>	FT/ST &SSC	Nests in dense, old-growth conifer, redwood, Douglass-fir, and mixed oak-conifer forests.	Absent. Dense, old-growth conifer forest to support this species is absent from the study area.
Peregrine falcon <i>Falco peregrinus anatum</i>	--/FP	Typically nests on ledges of large cliff faces; also nests on city buildings, bridges and tree cavities of coastal redwoods.	Absent. Cliff faces, suitable buildings, bridges, and redwood tree cavities absent from study area.
Western yellow-billed cuckoo <i>Coccyzus americanus occidentalis</i>	FT/SE	Nests in cottonwood/willow riparian forest; requires densely foliated areas for roosting. Occurs only along the upper Sacramento Valley portion of the Sacramento River, the Feather River in Sutter County, the south fork of the Kern River in Kern County, and along the Santa Ana and lower Colorado Rivers.	Absent. Densely vegetated riparian habitat to support this species is absent from the study area.
Yellow rail <i>Coturnicops noveboracensis</i>	--/SSC	Nests in densely vegetated marshes; typically requiring sedge marshes/meadows with moist soil or shallow standing water	Absent. Marsh, meadow and aquatic habitats to support this species are absent from the project area.
White-tailed kite <i>Elanus leucurus</i>	--/FP	Nests in tall shrubs and trees, forages in grasslands, agricultural fields and marshes.	Low. The ornamental trees within the study area provide low-quality nesting habitat for this species which typically forages in grasslands, agricultural fields, often adjacent to aquatic areas with abundant foraging habitat, which are absent from the study area or adjacent.
Bank swallow <i>Riparia riparia</i>	--/ST	Colonial nester on vertical banks or cliffs with fine-textured soils near water.	Absent. Cliffs and vertical banks to support this species are absent from the study area.
Mammals			
Pallid bat <i>Antrozous pallidus</i>	--/SSC	Forages over many habitats; roosts in buildings, trees, rocky outcrops and rocky crevices in mines and caves.	Low. Rocky outcrops, mines and caves absent to support this species. Buildings and structures can mimic natural cave features and this species has been known to roost in buildings. The buildings present in the study area provide low quality habitat for this species, given the urban, highly frequented study area.

Common Name Scientific Name	Status ¹ (Fed/State)	Habitat Requirements	Potential for Occurrence in the Study Area ²
American badger <i>Taxidea taxus</i>	--/SSC	Herbaceous, shrub, and open stages of most habitats with dry, friable, often uncultivated soils; require sufficient food sources (feeds mostly on burrowing rodents).	Absent. Open grassland habitats with friable, uncultivated habitats to support this species are absent from the study area. Burrows were absent from the study area at the time of survey.
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	--/SSC	Found in all but subalpine and alpine habitats and can be found at any season throughout its range. It is most common in mesic habitats. This species requires caves, mines, tunnels, buildings, other human-made structures, or other cave analogs (such as large hollow redwood trees) for roosting.	Low. Mesic habitats, caves, mines, tunnels, large hollow trees for roosting are absent from the study area. Buildings and structures can mimic natural cave features and this species has been known to roost in buildings. The buildings and trees present in the study area provide low quality habitat for this species, especially given the urban, highly frequented study area.
Western red bat <i>Lasiurus blossevillei</i>	--/SSC	Typically roost solitarily in dense tree foliage, particularly in willows, cottonwoods, and sycamores as well as conifer forests. Strongly associated with riparian habitats, often mature stands of cottonwood/sycamore. Forages in grassland, shrubland, open woodland, forest and agricultural habitats.	Absent. Dense, mature trees and adjacent foraging habitat to support this species are absent from the study area, given the urban, highly frequented study area.

Notes: ¹ Federal and State Status Codes: Federal Endangered (FE), State Endangered (SE), State Threatened (ST), State Candidate Endangered (CE), CDFW Fully Protected (FP), CDFW Species of Special Concern (SSC).

²The likelihood of occurrence (Present, High, Moderate, Low, Absent, Not Present) is based on species specific habitat requirements and range and were applied by using the following general guidelines specified in Section 3.