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San Jose' City Data Center (19-SPPE-04)

Data Response Set 1 (Responses to Data Requests 1 to 31)

Submitted to California Energy Commission

Prepared by Microsoft Corporation

with technical assistance from



January 2020





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Introduction

Attached are Microsoft Corporation (Microsoft or the Applicant) responses to the California Energy Commission (CEC) Data Request, Set 1 regarding the San Jose' City Data Center (SJC02) (19-SPPE-04) Small Power Plant Exemption (SPPE).

The responses are grouped by individual discipline or topic area. Within each discipline area, the responses are presented in the same order as the CEC presented them and are keyed to the Data Request numbers.

New or revised graphics or tables are numbered in reference to the Data Request number. For example, the first table used in response to Data Request 28 would be numbered Table DR28-1. The first figure used in response to Data Request 28 would be Figure DR28-1, and so on. Figures or tables from the SJC02 SPPE that have been revised have "R1" following the original number, indicating revision 1.

Additional tables, figures, or documents submitted in response to a data request (for example, supporting data, stand-alone documents such as plans, folding graphics, etc.) are found at the end of each discipline-specific section and are not sequentially page-numbered consistently with the remainder of the document, though they may have their own internal page numbering system.



Project Description (1–8)

Background: Workforce for Project Construction

Staff needs clarification on the estimated number of workers for project construction. The Project Description of the SPPE application (application) notes in section 2.4, "Onsite construction is expected to require a maximum of 215 workers (craft and supervisory) per month and an average of 108 workers per month. Maximum and average offsite construction workers are expected to be 72 and 48, respectively. Tables 2-1a and 2-1b presents the construction/demolition workforce by month and classification for onsite and offsite construction." In Population and Housing the application notes in section 3.14.2, that project construction would "employ an average of 60 workers per month and reach a peak workforce of approximately 129." Staff has the following associated question:

Data Requests

1) What is the estimated number of project construction workers during peak activities and on average? If necessary, please update Tables 2-1a and 2-1b.

Response: The maximum onsite construction workforce is expected to be 215 workers (craft and supervisory) per month and an average of 108 workers per month. The maximum and average offsite construction workers are expected to be 72 and 48, respectively. No revisions to Tables 2-1a or 2-1b are necessary. The workforce estimates in the Population and Housing section were preliminary data and the revised workforce estimates do not alter the analysis or conclusions presented in the Population and Housing section.

Background: Proposed Construction Laydown

On Figure 1-4 (Proposed Construction Laydown) of the application, the number labels that link the graphic to legend are missing. As such, the arrangement of the construction laydown is unclear.

Data Requests

2) Please provide a revised Figure 1-4 with readable labels:

Response: Revised Figure 1-4R with the correct labels is attached.

Background: Proposed Transmission Interconnection

Section 2.2 indicates that the project includes an onsite 230 kilovolt (kV) substation with two 230 kV electrical supply lines which interconnect to the Pacific Gas and Electric (PG&E) Los Esteros Substation. Understanding of the proposed interconnection to PG&E's existing facility would assist staff in determining the back-up generators' potential impacts to the system.

Data Requests

- 3) Please clarify Figure 2-6 (interconnection to PG&E System and One Line Diagram). The transformer rating shown in the figure for the New Microsoft Data Center Substation is 230/13.8 kV. The IC Substation Adder indicates that the transformer rating is 230/21 kV. Which rating is correct?
 - a. Figure 2-6 specifies that 45 MVA transformers would be utilized in the project design. Does this mean both would need to be operating to meet the data center loads?

Response: Both transformers will be required to meet the data center load requirements.

b. Are adding a third transformer an option to prevent the use of back-up diesel generators to supply the full data center loads in the event of regular maintenance or outages?

Response: PG&E provided the design presented in Figure 2-6 based on preliminary engineering. The final design will be provided by PG&E prior to commencement of construction,



scheduled to occur later this year. The Applicant is in consultation with PG&E to determine the feasibility of the request.

4) Please provide an updated Figure 2-6 for the proposed onsite data center substation with correct transformer sizes, breaker ratings, protection equipment information and the distribution feeders' interconnection with the load centers. Please identify each data center block, load information and how it would be interconnected with the proposed emergency diesel generators.

Response: The Applicant will consult with PG&E to determine if additional information is available at this time and will update/docket Figure 2-6 when additional information is provided.

5) Please update Figure 2-6 to show all changes and upgrades in the Los Esteros Substation, which are required to interconnect the project. Show the equipment ratings and bay arrangements.

Response: The Applicant will consult with PG&E to determine if additional information is available at this time.

6) Please provide the pole configurations that would be used to support the transmission lines from the Los Esteros Substation to the proposed data center substation. Show proposed pole structure configuration and measurement.

Response: The Applicant will consult with PG&E to determine if additional information is available on the proposed pole structures. However, the figure below presents a typical 230 kV tubular steel pole structure used on other PG&E projects.



Not to Scale

7) Please provide a map showing the proposed transmission line route.

Response: Figures 1-2 and 2-7 both show the proposed transmission line route which occurs entirely within the PG&E substation or the project site. We estimate that up to 12 tubular steel poles may be required.

 Section 2.2 states "the receiving station step voltage down to 60 kV for distribution along the Northwest Loop, which can then provide electricity to facilities interconnected to the loop from either



end, making electrical service reliable." How does the 60 kV loop fit into the 230 kV interconnection to the Los Esteros substation?

c. Figure 2-6 specifies that 45 MVA transformers would be utilized in the project design. Does this mean both would need to be operating to meet the data center loads?

Response: Both transformers will be required to meet the data center load requirements.



Biological Resources (9-10)

Background: Biological Resources EIR Appendices

Volume 2, Appendix 1-A to Appendix 3-5-A of the application states that "The following evaluation of biological resources onsite and within areas to be temporarily affected by utility installation is based primarily upon a biologic report prepared by Live Oak Associates in March 2017. Field surveys, including a protocol-level burrowing owl survey, were conducted in June and October 2016, as stated in the biologic report. An evaluation of the impacts of the potential stormwater outfall to Coyote Creek was evaluated by H.T. Harvey & Associates, Ecological Consultants. A tree survey was completed by HMH Engineers, in October 2015. These reports are provided in Appendices C, D, and E, respectively." Referenced appendices are missing from this filing, and all subsequent filings (TN# 230765, #230770).

Data Requests

9) Please provide the three biological reports (prepared by Live Oak Associates, HT Harvey & Associates, and HMH Engineers) as referenced above?

Response: The three requested biological reports are presented in Attachment DR-9.

Background: Agency Contacts

The California Department of Fish and Wildlife, the U.S. Fish and Wildlife Service, and the Santa Clara Valley Habitat Agency/City of San Jose' Planning Office should be contacted to confirm special-status species lists, potential impacts, and appropriate mitigation. The materials provided to this point do not state whether such contacts have been made.

Data Requests

10) Please provide names and contact information of any relevant agencies consulted during the preparation of the application.

Response: No agency staff were consulted during the preparation of the SJC02 SPPE application.



Cultural Resources (11-19)

Background: Cultural Resources Literature Search

The Cultural Resources Investigation (Alonso et al. 2019) submitted as Appendix 3.5A of the application lists previous studies and recorded resources within 1 mile of the project site as identified from a literature search of the Northwest Information Center (NWIC) on May 23,2019. In order to complete an independent analysis of the proposed project's potential to impact cultural resources, staff requires copies of the reports retrieved by way of the literature search.

Data Requests

- 11) Please provide copies of the reports and records identified in the following tables in the Cultural Resources Investigation (Alonso et al. 2019).
 - a) Table 4-1
 - b) Table 4-2
 - c) Table 4-3

Response: The requested reports/records with the Northwest Information Center literature search maps are being submitted under a request for confidential designation.

12) Please provide a copy of the May 23, 2019, NWIC literature search maps.

Response: A copy of the NWIC literature search maps is provided as Confidential Figure DR12-1.

13) Please provide copies of the previous studies noted in section 4.1, page 18, and listed in Table A-1: Cultural Resources Studies within the Project Area (Alonso et al.2019, Appendix A).

Response: See the response to Data Request # 11.

Background: Historical Built Environment Resources Literature Search

Section 3.5.3.2 of the application describes the built environment results of a literature search conducted at the NWIC on May 23,2019. Specifically, the third paragraph on page 3.5-8 states that "a complete discussion of the 22 historical built environment resources identified in the 1-mile buffer may be found in Appendix 3.5A, Cultural Resources investigation in Support of the San Jose' Data Center (SJC02) Project." Staff has been unable to locate the referenced discussion in the Appendix 3.5A.

Data Requests

14) The discussion referenced above appears to be missing from the Cultural Resources Investigation. Please provide the missing material. If the discussion was not completed as referenced, please state why the material was not included.

Response: Attachment DR-14 presents a revised Appendix 3.5A. The 22 built resources that fall within the Project Study Area are described in Section 4.0 Cultural Resources Inventory on page 19 of Attachment DR-14.

Background: Built Environment Survey Area

CR Figure 3 (Alonso et al. 2019) depicts the Architectural (Built Environment) Survey Area. The southern boundary of the survey area is difficult to distinguish on the graphic provided. It is also unclear as to property or parcel boundaries within the survey area.



Data Requests

15) Please clarify the Architectural (Built Environment) Survey Area boundary outline in CR Figure 3. Staff suggests a bolder line weight to make clear the boundaries of the survey)?

Response: Figure 3 of Attachment DR-14 has been revised consistent with the request to have a bolder line weight for the architectural (built environment) survey area and to include assessor parcel numbers.

16) Please identify the parcel numbers (APN) surveyed for built environment resources within the graphic provided.

Response: See the response to Data Request #15.

Background: Utility Line Surveys

The archaeological survey coverage map indicates that two portions of proposed utility lines remain unexamined for cultural resources because of "lack of accessibility" (Jacobs 2019, p.3.5-6, Figure 3.5-1). The application does not describe the accessibility issue(s). These unexamined utility lines total between 1.75 and 2.00 miles long. Their potential to contain cultural resources remains unaddressed.

Data Requests

17) Please describe the accessibility issue(s) that prevented archaeological survey of the unexamined linears?

Response: The linear routes are located on fenced private/public property. These areas were heavily vegetated during the survey window with minimally exposed ground surface.

18) Please describe the efforts to secure access for the archaeological and built environment surveyors.

Response: Due to the commercially sensitive nature of the project; the lack of visible ground surface; the fact these routes were already analyzed in the City of San José's EIR for the 237 Industrial Center project; and that mitigation measures have been identified to address any previously undiscovered resources, the Applicant did not pursue securing access to survey the linear routes.

19) Please provide a schedule for completing the archaeological survey of the linears.

Response: A schedule for conducting the surveys of the linear routes will be developed by the middle of February 2020.



Hazards and Hazardous Materials (20-22)

Background: Schedule for Fuel Tank Filling

The project design calls for a separate diesel fuel tank for each emergency generator. Each diesel engine would be readiness tested on a regular schedule, consuming a portion of its fuel.

Data Requests

20) Please provide the fuel tank replenishment strategy and frequency, and the estimated frequency of fuel trucks needing to visit the facility for refueling.

Response: Conservatively, each of the 40, 3MW standby generators is proposed to operate approximately 42 hours per year for testing and maintenance purposes (actual testing and maintenance operation will likely be less than 13 hours per year consistent with SPPE Application Table 2-4). At the maximum engine operating rate, each engine consumes 202 gallons of diesel fuel per hour, resulting in approximately 8,500 gallons of diesel fuel use per year. Using the approach above for the administrative generators, their maximum fuel consumption rates are 90.5 and 34.4 gallons per year, resulting in up to 3,800 and 1,450 gallons per year of fuel use. For conservative planning purposes, this analysis assumes up to 2 fuel deliveries per year per engine (84 annual deliveries for the 42 standby generators).

Background: Stored Fuel Degradation

Stored diesel fuel is subject to degradation over time, which can render it unsuitable for use and potentially requiring it to be changed-out for fresh fuel.

Data Requests

21) Please describe what measures are planned to maintain adequate quality of the stored fuel. How often might the stored fuel need to be changed-out for new? If needed, how would this be accomplished? How many fuel truck visits would be required?

Response: Each diesel generator fuel storage tank includes an automatic fuel filtration/conditioning system that filters the tank contents daily. This system is inspected quarterly, and a fuel sample is collected for testing. The filters are replaced as needed or at least annually. The filtration system is expected to maintain adequate fuel quality and fuel change-out is not expected.

Background: Phase 1 ESA

The application mentions that the Phase 1 Environmental Site Assessment and a Phase 1 Environmental Site Assessment Update were included with the Draft Environmental Impact Report as Appendices I and J and attached to Appendix 1A. The two reports were not included in Appendix 1A.

Data Requests

22) Please provide the Phase 1 Environmental Site Assessment and the update.

Response: Due to the size of these documents (over 60 megabytes each), the Phase 1 Environmental Site Assessment and update can be downloaded from the City of San José's website at the following link. The Phase 1 Environmental Site Assessment is Appendix I and the update is Appendix J.

https://www.sanjoseca.gov/your-government/departments/planning-building-codeenforcement/planning-division/environmental-planning/environmental-review/completed-eirs/237industrial-center



Transportation (23-29)

Background: Transportation Concerns during Construction

Section 2.4 Project Construction of the application, states the project would require a maximum of 215 onsite construction workers and a maximum of 72 offsite construction workers per month. Tables 2-3 Onsite/Offsite Construction Trip Generation and 3.174 Construction Trip Generation includes 215 worker trips traveling to the site during the AM and PM hours but does not include the 72 offsite workers. The application also states a geotechnical investigation was conducted and suggests 3 to 4 feet of imported fill would be required to address liquefaction/lateral spreading and expansive soils. However, the number of truck trips generated from the delivery of imported fill is not provided.

Data Requests

23) Please clarify if offsite construction worker trips are included in Table 3.17-4 Construction Trip Generation. If they are not included, please provide a revised table that includes offsite construction traffic trips (i.e. offsite construction workers and delivery haul). If offsite construction trips are included please disclose how many of the 215 trips are offsite worker trips.

Response: Table 3.17-4 does not include the offsite construction workforce. A revised Table 3.17-4R is provided below. The revised table conservatively added 120 am and 120 pm haul trips to the 30 delivery/haul trucks in the original Table 3.17-4. In addition, the revised table also includes a separate row showing the offsite worker trips and includes the maximum and average number of onsite/offsite workers. It should be noted that haul trips occur primarily during the first month or two of construction when the number of onsite/offsite workers is at a minimum.

	AM Peak Hour			PM Peak Hour		
Тгір Туре	In	Out	Total	In	Out	Total
Delivery/Haul Trucks	150	150	300	150	150	300
Offsite Workers (Maximum/Average)	72/48		72/48		72/48	72/48
Onsite Workers (Maximum/Average)	215/108	0	215/108	0	215/108	215/108
Total Construction Traffic			587/456			587/456

Table 3.17-4R. Construction Trip Generation

Notes:

-- = not applicable

24) How many cubic yards of imported fill would be required for the project?

Response: Approximately 182,000 cubic yards of imported fill will be required.

25) Please provide the maximum and average number of daily trips for the delivery of imported fill

Response: The maximum number of daily trips for the delivery of fill is expected to be 240, based on 25 trucks with a 20 cubic yard capacity operating 8 hours per day for approximately 14 days. The average number of haul trips is expected to be the same as the maximum.

Background: Alterations to Public Roadways

Section 3.17.5c (page 3.17-19) states project construction and operations would not permanently alter any public roadways or intersections.



Data Requests

26) Would project construction (onsite and offsite) or operations temporarily alter any public roadways or intersections? If so, please identify which roadway and/or intersection would be affected, describe the alteration, and provide the duration of activities on the affected roadway and/or intersection.

Response: As part of required off-site infrastructure improvements, Zanker Road will be widened, an extension of Nortech Parkway will be constructed to the site from Zanker Road, and a new signalized intersection will be constructed. The work will require staging of construction as well as Maintenance and Protection of Traffic (MPT) measures be put in place to facilitate this phase of work. The MPT strategy would be to construct the new widened portion of roadway initially, transfer traffic to that pavement, then reconstruct the existing pavement to complete the new cross-section, with a final stage to complete the roadway. This work in total can be expected to be performed over an approximately 8-month duration, for a period of two to three months to complete each stage.

Background: Site Entrance and Exit

Section 3.17.5d (page 3.17-20) states "Emergency access to the site will continue to be provided from the existing driveways along Alviso-Milpitas Road". Figure 2-1 Site Plan shows and identifies the site entrance/exit would be constructed off a road extension from Zanker Road to the northern portion of the project site and identifies a secondary site entrance/exit at a new driveway east of the existing driveway along Alviso-Milpitas Road, with the existing driveway being removed. There is no discussion of the site entrance/exit at the northern portion of the site or the construction of the road to it, nor the new secondary entrance/exit along Alviso-Milpitas Road.

Data Requests

27) Please provide a detailed discussion and a schedule for the construction of the new road and the site entrance/exit, and the secondary entrance/exit, respectively identified as 8 and 9 on the Figure 2-1 Site Plan.

Response: The new roadways associated with site access would be on an advanced timeframe from the on-site project work, with the route improved sufficiently in advance of site construction commencing to allow for use by construction traffic. The intent would be to follow the alignment of the Nortech Parkway extension from Zanker Road, with base material placed to allow for truck hauls associated with the site fill and ground improvements; this would be the initial work activity on the overall effort and expected to be completed in the first month of activity associated with the project. This roadway improvement would progress in stages, accommodating material deliveries and trade access to the project site, while pavement, curbs, sidewalk and streetscape are completed. The roadway construction can be estimated as coincident with the on-site project duration, at about 12 months total.

Background: VMT Estimates

Appendix 3.17-4 provides the VMT results per the San Jose' VMT Evaluation Tool; however, the number of proposed vehicle and bicycle parking spaces were not provided. In addition, the total square footage of approximately 479,000 square feet for the two buildings provided in Section 2.1 Project Description conflicts with the 484,000 square feet provided in Appendix 3.17A.

The SPPE application discusses the city's municipal code requirements related to bicycle parking spaces however, the number of spaces is unclear because conflicting numbers were provided. For example, the second paragraph on page 3.11-5 states, "Based on the square footage of the office/meeting/technician work space area, as well as computer equipment spaces, the project will be required to provide 15 bicycle parking spaces. The project will be required to comply with the bicycle parking requirement by providing 35 bicycle parking spaces, as shown in the site plan." It is unclear to staff what number of bicycle parking spaces the project includes.



Furthermore, on page 3.114 the application discusses the city's vehicle parking requirements including the anticipated use of a Development Exception Permit. However, there is not a discussion of the standard amount of parking spaces required by Section 20.90.060 (Number of Parking Spaces Required) of the San Jose' Municipal Code nor is there any discussion of the number of parking spaces required under the less stringent Development Exception Permit under Municipal Code Section 20.100.1 300(8x1xd).

To develop an accurate VMT estimate for the project, bicycle and vehicle parking numbers are required as well as the proposed square footage.

Data Requests

28) Please provide the project's proposed number of vehicle and bicycle parking spaces

Response: The total number of proposed vehicle parking spaces is 116 spaces and the total number of bicycle spaces is 35. Pursuant to Table 20-190 of Section 20.90.060 the San José Municipal Zoning Code, the project is required to provide 182 vehicle parking spaces, 33 bicycle parking spaces, and 11 clean air vehicle parking spaces out of the total number of vehicle parking spaces. The Applicant will request a Development Exception reflecting the need for a reduction in parking from the required 182 spaces to the proposed 116 spaces. To support the Development Exception request, the Applicant will complete a parking study at a nearby data center by the end of April 2020.

29) Please provide a table that breaks down the square footage by use (e.g. office/meeting/technician workspace, and computer equipment space).

Response: Table DR-29 presents a breakdown of the approximate area for Administrative and Data Center spaces for each building.

Area Type	Building SJC02	Building SJC03			
	Square Feet (approx.)				
Administrative Space	13,252	9,118			
Data Center Space	228,453	228,150			

Table DR-29 SJC02 Area Computations



Tribal Cultural Resources (30-31)

Background: Northern Valley Yokuts Tribe

The application states that the Northern Valley Yokuts Tribe asked for official consultation with the lead agency and a site visit (Jacobs 2019, Table 3.18-1). The application does not describe the applicant's follow-up on these two requests.

30) Did the applicant conduct a site visit with the Northern Valley Yokuts Tribe? Please describe.

Response: No, a site visit was not conducted with the Northern Valley Yokuts Tribe. We informed the tribe of the CEC's role as the CEQA lead agency and Assembly Bill 52's requirements for tribal consultation in this regard.

31) What did the applicant advise the Northern Valley Yokuts Tribe regarding lead agency consultation?

Response: Copies of the correspondence with the Northern Valley Yokuts Tribe is presented in Attachment DR-14.

Figures





- 1 CONSTRUCTION LAYDOWN
- ② GRAVEL ROAD
- ③ JOB SITE TRAILERS
- (4) CRAFT PARKING
- **(5)** VEHICLE WASH-DOWN
- 6 EXISTING SITE ENTRY



Figure 1-4R Proposed Construction Laydown San José Data Center (SJC02) San José, California



Figure DR12-1

Figure DR12-1 NWIC Literature Search Map has been provided under a request for confidentiality.

Attachment DR-9 Biological Reports

Appendix C

Technical Biological Report



237 INDUSTRIAL CENTER PROJECT TECHNICAL BIOLOGICAL REPORT SAN JOSE, CALIFORNIA

Prepared by

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1 INTRODUCTION

This site was evaluated by Live Oak Associates, Inc. (LOA) to ascertain whether or not build-out of the proposed project would have a significant impact (as defined by CEQA) on the biological resources of the site and region. This report describes the biotic resources of the approximately 66.5-acre (plus approximately 48.11 acres of off-site utility alignments) development of the Cilker Property in San Jose and evaluates potential impacts of the proposed land use changes upon these resources, including the project's conformance to the City of San Jose's *Riparian Corridor Policy* (1999), Envision San Jose 2040 General Plan (City of San Jose 2011) and Santa Clara Valley Habitat Conservation Plan (SCVHP; ICF International 2012). The site is bounded by Coyote Creek to the east, Highway 237 to the south, water treatment land to the north, and property owned by the City of San José to the west. The site can be found in the Milpitas U.S.G.S. 7.5' quadrangle in Sections 10, 11, and 12 of Township 6 South and Range 1 West (Figure 1).

The site is currently comprised of annual grassland and a residence with outbuildings as well as associated barn and shop, and is next to a Santa Clara Valley Water District (SCVWD) property as well as Coyote Creek to the east.

In general, the development of parcels can damage or modify biotic habitats used by sensitive plant and wildlife species. In such cases, site development may be regulated by state or federal agencies, subject to provisions of the California Environmental Quality Act (CEQA), and/or covered by policies and ordinances of the City of San Jose. Therefore, this report addresses issues related to: 1) sensitive biotic resources occurring in the study area; 2) the federal, state, and local laws regulating such resources, 3) evaluate whether or not the project results in any significant impacts to these resources; and if so, 4) includes mitigation measures to reduce these impacts to less-thansignificant (as defined by CEQA).





The analysis of impacts, as discussed in Section 3.0 of this report, was based on the known and potential biotic resources of the study area discussed in Section 2.0. Sources of information used in the preparation of this analysis included: 1) the *California Natural Diversity Data Base* (RareFind5, 2016); 2) the *California Rare Plant Rank* (CNPS 2016); 3) manuals and references related to plants and animals of the Santa Clara Valley region; 4); the City of San Jose policies and ordinances; and 5) the Santa Clara Valley Habitat Conservation Plan (ICF International 2012).

Field surveys of the study area were conducted on June 20, 2016 by LOA ecologists Katrina Krakow and Nathan Hale, on October 18, 2016 by Ms. Krakow, Sarah Piramoon, and Pam Peterson. Mr. Hale conducted a brief site visit to map habitat features associated with Coyote Creek on October 26, 2016, and Ms. Krakow conducted a site visit to assess a new utility alignment on March 36, 2017. A protocol-level burrowing owl survey was conducted by LOA on the dates listed above (June 20 and October 18, 2016).

1.1 PROJECT DESCRIPTION

The Cilker Project is bounded by Coyote Creek to the east, Highway 237 to the south, and water treatment land to the north, and City of San José property to the west. The project site is primarily fallow farmland with two single-family homes and some accessory structures located near the southern portion of the site. The site is currently supported by well water and a septic tank system. The project includes two development options. Option 1 proposes approximately 1.2 million square feet of light industrial development and Option 2 proposes a 436,880 square foot data center, a PG&E substation to support the data center, and approximately 728,000 square feet of light industrial development uses.

Option 1 would include seven two-story light industrial buildings with a maximum height of 45 feet and a floor area ratio (FAR) of 0.43. Approximately 2,621 parking spaces would be provided in surface lots surrounding the buildings. Types of uses could include warehousing, wholesaling, light industrial manufacturing, and associated service establishments.

Option 2 would include four main buildings for data center uses on approximately 26.5 acres of the 66.5-acre site. The tallest structure would not exceed a maximum height of 100 feet (Building B). The remaining three buildings would be a maximum of 55 feet tall and contain data center equipment, computers, and servers. The project includes cooling towers (700 kW/cell with 20



cells/10 packs) and 24, 2,000 kW emergency generators (Caterpillar 3516C). Approximately 151 parking spaces would be provided in two surface lots located adjacent to the main buildings. A new approximately 103,300 square foot electrical substation with a maximum height of 45 feet would be constructed along the northern boundary of the project site, west of the data center site.

Option 2 also includes the construction of up to 728,000 square feet of light industrial uses similar to what is proposed in Option 1 over the remaining approximately 40 acres of the project site. Heights would not exceed 45 feet and an FAR of 0.43 is expected. Parking per City code requirements would be provided per final designs for this portion of the site.

Access to the site would be provided by two new public streets from Zanker Road. Existing access from Ranch Drive near the southeast corner of the site would be maintained over Coyote Creek for trucks accessing the Los Esteros Critical Energy Facility (LECEF) site west of the project site, emergency vehicle access, and bicycles and pedestrians on the Coyote Creek Trail. Under Option 1, both streets would be public streets utilized to access the light industrial uses from Zanker Road. Under Option 2, the data center portion of the project site would be accessed through a secured entry adjacent to the substation on the northern side of the site.

There are very few existing utilities onsite; therefore, water, sanitary sewer, stormwater, electrical, natural gas, and telecom facilities would be extended onto the site. A new stormwater outfall to Coyote Creek would be constructed near the existing outfall near the center portion of the site, and is not included as a part of this document, as it is assessed in a separate document prepared by H.T. Harvey and Associates.

The project site is designated LI - Light Industrial under the City's General Plan and zoned A(PD) – Agricultural Planned Development. Development of the project would be consistent with the City's General Plan land use designation and the Alviso Master Plan. It is anticipated that the project would be rezoned to the conventional zoning designation of *Light Industrial*. Data Centers require a Special Use Permit (SUP) within this zoning district.

The development of the Cilker Project site will observe a setback of at least 100 feet from the riparian corridor of Coyote Creek which is adjacent to the project, except for where the outfall goes into Coyote Creek.



2 EXISTING CONDITIONS

The approximately 66.5-acre project site is located just north of Ranch Road and Highway 237 in Alviso, San Jose, California. The site is bounded to the south by Ranch Road and Highway 237, to the west by PG&E and the LECEF, to the north by open annual grassland, and to the east by the levee and riparian habitat of the Coyote Creek channel. The site currently consists of mostly undeveloped habitat, however a few residences and agricultural-structures occur onsite and roadways occur along the utility alignments. The site has relatively flat topography between approximately 6 feet (2 m) and approximately 14 feet (3 m) National Geodetic Vertical Datum (NGVD.

Five soil types were identified per the Web Soil Survey (2016; Figure 2). Embarcadero silty clay loam, drained, 0 to 2 percent slopes, Clear Lake silty clay, 0 to 2 percent slopes, drained, Campbell silt loam, 0 to 2 percent slopes, protected, Elder fine sandy loam, protected, 0 to 2 percent slopes, Elder fine sandy loam, 0 to 2 percent slopes, rarely flooded. The Embarcadero Complex has poorly-drained soils and is alkaline. The Clear Lake Complex has poorly-drained soils and is alkaline. The Clear Lake Complex has poorly-drained soils and is alkaline. The Clear Lake Complex has noderately well-drained soils and is alkaline. The Elder Complex has well-drained soils and is alkaline. The Embarcadero, Clear Lake, and Campbell Complexes are considered to be hydric.

Annual precipitation in the general vicinity of the study area is about 15-20 inches, almost 85% of which falls between the months of October and March. Virtually all precipitation falls in the form of rain.





2.2 BIOTIC HABITATS

Four general biotic habitat distinctions – agricultural fields (short-term fallowed), annual grassland, and developed – describe the habitat areas identified within the project area (Figure 3). The onsite portion is comprised of agricultural fields with two developed residential areas and a small wetland. The off-site utility alignment is comprised of annual grassland with some developed roads. All habitat areas of the project area are described below.

2.2.1 Agricultural fields

The core project area, the land located to the west of Coyote Creek and to the east and north of the LECEF and a PG&E station, is predominantly comprised of managed agricultural fields that are regularly disked and are currently fallowed (approximately 60 acres). These areas of the project site appear to have been annually disked and/or farmed for more than 20 years according to historical photography available from Google Earth (accessed June 20, 2016). At the time of LOA's surveys, these fields were mostly comprised of barren exposed soils and they supported scattered ruderal annual grassland species. Vegetation of the agricultural fields were dominated by typical grassland species such as wild oat (Avena spp.) and Italian rye grass (Festuca perennis) and forb species included cheeseweed mallow (Malva parviflora), black mustard (Brassica nigra), and summer mustard (*Hirschfeldia incana*). Other species observed in this habitat of the project area included Harding grass (*Phalaris aquatica*), poison hemlock (*Conium maculatum*), field bindweed (Convolvulus arvensis), bristly ox tongue (Helminthotheca echioides), prickly lettuce (Lactuca serriola), wild radish (Raphanus sativus), and milk thistle (Silybum marianum). Along the northern margin of the agricultural fields of the site, which was less managed than the majority of the field, a few woody plants occurred including the coyote brush (Baccharis pilularis), box elder (Acer negundo), Northern California black walnut (Juglans hindsii), and blue elderberry (Sambucus nigra ssp. *caerulea*). A linear low depression exists along the western edge of the site, however, with the exception of a couple individuals of wetland species like curly dock, this feature is dominated by upland species like cheeseweed (Malva neglecta) and wild radish (Raphanus sativa). Grasses dominating this feature appear to be undifferentiated from the adjacent field to the east and it has no real defined bed/bank.





Animals observed during the site visits include the double-crested cormorant (*Phalacrocorax auritus*), gull, Canada goose (*Branta canadensis*), mallard duck (*Anas platyrhynchos*), red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*Buteo lineatus*), barn owl (*Tyto alba*), killdeer (*Charadrius vociferus*), great egret (*Ardea alba*), American crow (*Corvus brachyrhynchos*), western scrub jay (*Aphelocoma californica*), northern mockingbird (*Mimus polyglottos*), black phoebe (*Sayornis nigricans*), mourning dove (*Zenaida macroura*), rock dove (*Columba livia*), California towhee (*Melozone crissalis*), yellow-rumped warbler (*Setophaga coronata*), western meadowlark (*Sturnella neglecta*), song sparrow (*Melospiza melodia*), house finch (*Haemorhous mexicanus*), dead mouse, Botta's pocket gopher (*Thomomys bottae*) sign, California ground squirrel (*Otospermophilus beecheyi*), and black-tailed jackrabbit (*Lepus californicus*).

2.2.2 Annual Grassland

Annual grassland areas were observed along much of the off-site infrastructure alignment areas of the proposed project (i.e., roadways and potable water, recycled water, fiber optic, sewer, and gas lines; Figure 3). Annual grasslands range from managed fields to a more mesic and intact grasslands and total approximately 32.61 acres. A filled creek exits running north-south where the utility alignment is planned; this no longer functions as a creek and does not support a bed or bank. Manmade raised earthen berms exist within the annual grassland, which provide habitat for California ground squirrels, which have colonized many of the berms. One long skinny berm exits in the field east of Zanker Road and north of the bike path. This berm had several black corrugated pipes installed within the berm. These may have been installed to promote habitat suitability of the property for burrowing owls. Artificial burrows installed within mounds exist within the westernmost infrastructure alignment and adjacent to the other infrastructure alignments which have been installed to promote burrowing owl use. Burrowing owls were not observed during the site surveys, although the westernmost alignment area was flooded with mounds above the water level at the time of the March 3, 2017 site visit. This area is known to flood, which is one of the reasons for the man-made mounds to enhance burrowing owl habitat, however, wetlands were not observed.

Plants observed in this habitat and along the edges of this habitat includes ruderal plants generally found in annual grasslands such as wild oats (*Avena sp.*), black mustard (*Brassica nigra*), ripgut (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), Italian thistle (*Carduus pycnocephalus*), barnyard barley (*Hordeum murinum ssp. leporinum*), prickly lettuce (*Lactuca serriola*), common



mallow (*Malva neglecta*), wild radish (*Raphanus sativus*), Russian-thistle (*Salsola tragus*), prickly sow-thistle (*Sonchus asper*), and common chickweed (*Stellaria media*). Borders of this habitat included landscaped trees and other landscaping.

Animals observed during the site visit in addition to species observed in the agricultural field include the white pelican (*Pelecanus sp.*), turkey vulture (*Cathartes aura*), American kestrel (*Falco sparverius*), European starling (*Sturnus vulgaris*), vole (*Microtus californicus*), and coyote scat (*Canis latrans*).

2.2.3 Developed

Several portions of the site are comprised of developed land uses. These include a landscaped margin along the western side of the Cilker property agricultural fields which is shared with the PG&E and LECEF properties (the margin to the west of the main property); a residential unit in the southeast corner of the site; two additional residential units, a warehouse storage building – likely associated with the agricultural uses of the agriculture fields – a tin and metal building; and a large gravel driveway. Approximately 4 acres of developed area exists within the main portion of the site, and approximately 15 acres of roadway and levee exist within the off-site utility alignment. Both roads are graded gravel roadways. No plants were observed within these roads. Within the infrastructure alignment areas of the site, developed land use areas include public and private roadways and a bike path that parallels Highway 237.

The landscaped margin of the site, which lies along the border of the site, supports pepper trees (*Schinus* sp.), sycamore, privet (*Ligustrum* sp.), and crimson bottlebrush (*Callistemon citrinus*) to name a few of the plantings. Some of these species overhang the property and some are likely offsite on the utility properties.

The residential properties of the site support a mix of horticultural plant species and weedy species. Plants observed in the developed areas include landscape plantings of jacaranda (*Jacaranda mimosifolia*), oleander (*Nerium oleander*), privet, pepper trees, and a row of various managed fruit trees and olives (*Olea europaea*). Weedy species around the residential properties include many of the same species observed in the agricultural fields of the site as well as spurge (*Euphorbia* sp.), stinkwort (*Dittrichia graveolens*), willow herb (*Epilobium brachycarpum*), serrated lettuce, mallow, and Russian thistle (*Salsola tragus*), to name a few of the observed species.



Animals in the adjacent habitats would be expected to occur in this habitat.

2.2.4 Wetland

A small wetland (approximately 0.066 acres) exists in the shape of a narrow triangular area near Ranch Drive in the southwestern corner of the main site. It is dominated by a dense stand of California blackberry and there is a pump station next to it.

Animals in the adjacent habitats would be expected to occur in this habitat.

2.3 MOVEMENT CORRIDORS

Ecologists and conservation biologists have expended a great deal of energy since the early 1980's advocating the protection and restoration of landscape linkages among suitable habitat patches. Movement corridors or landscape linkages are usually linear habitats that connect two or more habitat patches (Harris and Gallager 1989), providing assumed benefits to the species by reducing inbreeding depression, and increasing the potential for recolonization of habitat patches. Some researchers have even demonstrated that poor quality corridors can still provide some benefit to the species that use them (Beier 1996).

Beier and Noss (1998) evaluated the claims of the efficacy of wildlife corridors of 32 scientific papers. In general, these authors believed that the utility of corridors was demonstrated in fewer than half of the reviewed papers, and they believed that study design played a role in whether or not given corridors were successful. Examples of well-designed studies supported the value of corridors. They believed, however, that connectivity questions make sense only in terms "of a particular focal species and landscape." For example, volant (flying) species are less affected by barriers then small, slow moving species such as frogs or snakes (Beier and Noss 1998). In addition, large mammals such as carnivores that can move long distances in a single night (e.g., cougars) are more capable of making use of poor quality or inhospitable terrain than species that move more slowly and can easily fall prey to various predators or that are less able to avoid traffic or other anthropogenic effects (Beier 1996). Therefore, it is reasonable to conclude that landscape linkages, even poor ones, can be and are useful, especially for terrestrial species.

Therefore, while the importance of landscape linkages is well demonstrated in the scientific literature, the cautionary note of Beier and Noss (1998) that consideration of context and ecological scale are also of critical importance in evaluating linkages.

Habitat corridors are vital to terrestrial animals for connectivity between core habitat areas (i.e., larger intact habitat areas where species make their living). Connections between two or more core habitat areas help ensure that genetic diversity is maintained, thereby diminishing the probability of inbreeding depression and geographic extinctions. This is especially true in fragmented landscapes and the surrounding urbanized areas as found in the rural/urban matrix along the edges of the City of San Jose.

The quality of habitat within the corridors is important: "better" habitat consists of an area with a minimum of human interference (e.g., roads, homes, etc.) and is more desirable to more species than areas with sparse vegetation and high-density roads. Movement corridors in California are typically associated with valleys, rivers and creeks supporting riparian vegetation, and ridgelines. With increasing encroachment of humans on wildlife habitats, it has become important to establish and maintain linkages, or movement corridors, for animals to be able to access locations containing different biotic resources that are essential to maintaining their life cycles.

Healthy riparian areas (supporting structural diversity, i.e., understory species to saplings to mature riparian trees) have a high biological value as they not only support a rich and diverse wildlife community but have also been shown to facilitate regional wildlife movement. Riparian areas can vary from tributaries winding through scrubland to densely vegetated riparian forests.

A riparian zone can be defined as an area that has a source of fresh water (e.g., rill, stream, river), a defined bank, and upland areas consisting of moist soils (e.g., wetter than would be expected simply due to seasonal precipitation). These areas support a characteristic suite of vegetative species, many of which are woody, that are adapted to moister soils. Such vegetation in hills surrounding San Jose include California buckeye (*Aesculus californica*), dogwood (*Cornus sp.*), California hazelnut (*Corylus cornuta* var. *californica*), elderberry (*Sambucus sp.*), Oregon ash (*Fraxinus latifolia*), walnut (*Juglans sp.*), California laurel (*Umbellularia californica*), toyon (*Heteromeles arbutifolia*), oaks (*Quercus sp.*), and willow (*Salix sp.*).



Beier and Loe (1992) noted five functions of corridors (rather than physical traits) that are relevant when conducting an analysis regarding the value of linkages. The following five functions should be used to evaluate the suitability of a given tract of land for use as a habitat corridor:

- 1. Wide ranging mammals can migrate and find mates;
- 2. Plants can propagate within the corridor and beyond;
- 3. Genetic integrity can be maintained;
- 4. Animals can use the corridor in response to environmental changes or a catastrophic event;
- 5. Individuals can recolonize areas where local extinctions have occurred.

A corridor is "wide enough" when it meets these functions for the suite of animals in the area. It is important to note that landscape linkages are used differently by different species. For instance, medium to large mammals (or some bird species) may traverse a corridor in a matter of minutes or hours, while smaller mammals or other species may take a longer period of time to move through the same corridor (e.g., measured in days, weeks and even years). For example, an individual cougar may traverse the entire length of a long narrow corridor in an hour while travel of smaller species (such as rodent or rabbit species) may best be measured as gene flow within regional populations. These examples demonstrate that landscape linkages are not simply highways that animals use to move back and forth. While linkages may serve this purpose, they also allow for slower or more infrequent movement. Width and length must be considered in evaluating the value of a landscape linkage. A long narrow corridor would most likely only be useful to wide ranging animals such as cougars and coyotes when moving between core habitat areas.

To the extent practicable, conservation of linkages should address the needs of "passage species" (those species that typically use a corridor for the express purpose of moving from one intact area to another) *and* "corridor dwellers" (slow moving species such as plants and some amphibians and reptiles that require days or generations to move through the corridor).

Although the project site and Coyote Creek are not within a defined linkage in the Santa Clara Valley Habitat Conservation Plan, Coyote Creek is defined as an important regional habitat linkage. Coyote Creek is expected to act as a movement corridor for many common local species.

2.4 SPECIAL STATUS PLANTS AND ANIMALS

Several species of plants and animals within the state of California have low populations, limited distributions, or both. Such species may be considered "rare" and are vulnerable to extirpation as



the state's human population grows and the habitats these species occupy are converted to agricultural and urban uses. As described more fully in Section 3.2, state and federal laws have provided the California Department of Fish and Wildlife (CDFW) and the U.S. Fish and Wildlife Service (USFWS) with a mechanism for conserving and protecting the diversity of plant and animal species native to the state. A sizable number of native plants and animals have been formally designated as threatened or endangered under state and federal endangered species legislation. Others have been designated as "candidates" for such listing. Still others have been designated as "species of special concern" by the CDFW. The California Native Plant Society (CNPS) has developed its own set of lists of native plants considered rare, threatened, or endangered (CNPS 2001). Collectively, these plants and animals are referred to as "special status species."

A number of special status plants and animals occur in the vicinity of the study area. These species, and their potential to occur in the study area, are listed in Table 1. Sources of information for this table included *California's Wildlife, Volumes I, II, and III* (Zeiner et. al 1990), *California Natural Diversity Data Base* (CDFW 2016), *Endangered and Threatened Wildlife and Plants* (USFWS 2016), and the *Annual Report on the Status of California State Listed Threatened and Endangered Animals and Plants* (CDFW 2016).

A search of published accounts for all of the relevant special status plant and animal species was conducted for the Milpitas USGS 7.5 minute quadrangle in which the project site occurs, and for the eight surrounding quadrangles (Newark, Niles, La Costa Valley, Mountain View, Calaveras Reservoir, Cupertino, San Jose West, and San Jose East) using the California Natural Diversity Data Base Rarefind5 2016. All species listed as occurring in these quadrangles on CNPS Lists 1A, 1B, 2, or 4 were also reviewed (See Figure 4).

Serpentine soils are absent from the site; as such, those species that are uniquely adapted to serpentine conditions are considered absent from the site. These include the chaparral harebell (*Campanula exigua*), Mt. Hamilton fountain thistle (*Cirsium fontinale var. campylon*), San Francisco collinsia (*Collinsia multicolor*), Santa Clara Valley dudleya (*Dudleya abramsii* ssp. *setchellii*), fragrant fritillary (*Fritillaria liliacea*), Loma Prieta hoita (*Hoita strobilina*), smooth lessingia (*Lessingia micradenia var. glabrata*), woodland woollythreads (*Monolopia gracilens*), Metcalf Canyon jewel-flower (*Streptanthus albidus ssp. albidus*), and most beautiful jewel-flower (*Streptanthus albidus ssp. peramoenus*). Other plant species occur in habitats not present in the
study area (e.g., chaparral, broadleafed forest, coastal prairie, coastal scrub, etc.) or at elevations significantly above onsite elevations (i.e., above approximately 6 feet or 2 meters in elevation and below approximately 14 feet or 3 meters) and, therefore, are also considered absent from the site. These species include the Santa Clara red ribbons (*Clarkia concinna ssp. automixa*), arcuate bush-mallow (*Malacothamnus arcuatus*), Hall's bush-mallow (*Malacothamnus hallii*), and hairless popcornflower (*Plagiobothrys glaber*).



LEGEND

Plants

- alkali milk-vetch \star
- arcuate bush-mallow ÷
- **Congdon's tarplant** •
- Hoover's button-celery
- Point Reyes salty bird's-beak ۸
- saline clover *

Animals

- Alameda song sparrow
- burrowing ow
- salt-marsh harvest mouse
- salt-marsh wandering shrew
- saltmarsh common yellowthroat Φ
- western pond turtle *
- western snowy plover ×
- western yellow-billed cuckoo
- white-tailed kite *

Sources:

California Dep. of Fish & Wildlife Natural Diversity Database U.S. Fish & Wildlife Service



PLANTS (adapted from CDFW 2016 and CNPS 2016)

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

Species	Status	Habitat	*Occurrence in the Study Area
Robust Spineflower	FE,	Habitat: Occurs on sandy or	Absent. No suitable habitat occurs on the
(Chorizanthe robusta var.	CNPS	gravelly soils in openings of	site for this species.
robusta)	1B	cismontane woodlands, coastal	-
		dunes and coastal scrub.	
		Elevation: 3-300 meters.	
		Blooms: April – September.	
Contra Costa goldfields	FE,	Habitat: Occurs in vernal pools	Absent. No suitable habitat occurs on the
(Lasthenia conjugens)	CRPR	and mesic areas of valley and	site for this species.
	1B	foothill grasslands, typically	-
		alkaline.	
		Elevation: 0-470 meters.	
		Blooms: Annual herb; March-	
		June.	
California Seablite	FE,	Habitat: Occurs in coastal salt	Absent. No suitable habitat is present on
(Suaeda californica)	CNPS	marshes and swamps.	the site for this species.
	1B	Elevation: 0-15 meters.	-
		Blooms: July-October	

Other special status plants listed by CNPS

Species	Status	Habitat	*Occurrence in the Study Area
Alkali Milk-vetch (Astragalus tener var. tener)	CNPS 1B	Habitat: Occurs in alkaline soils in valley and foothill grassland and in vernal pools. <u>Elevation</u> : 1-60 meters. <u>Blooms</u> : March-June.	Absent. Suitable habitat is absent on the site due to on-going human disturbance.
Brittlescale (Atriplex depressa)	CNPS 1B.2	Habitat: Occurs on alkaline clay soils in chenopod scrub, meadows and seeps, playas, valley and foothill grasslands, and vernal pools. Elevation: 1-320 meters. Blooms: Annual herb; April- October.	Absent. Suitable habitat is absent on the site due to on-going human disturbance.
Lesser saltscale (<i>Atriplex minuscule</i>)	CNPS 1B.1	Habitat: Occurs in alkaline and sandy soils in chenopod scrub, playas, and valley and foothill grasslands. <u>Elevation</u> : 15-200 meters <u>Blooms</u> : Annual herb; May- October.	Absent. Suitable habitat is absent on the site due to on-going human disturbance.
Big-scale balsamroot (Balsamorhiza macrolepis)	CRPR 1B	<u>Habitat</u> : Chaparral, cismontane woodland, and valley and foothill grasslands, often on serpentine soils. <u>Elevation</u> : 90-1555 meters. <u>Blooms</u> : March–June.	Absent. Suitable habitat is absent on the site due to on-going human disturbance. Additionally, this perennial herb would have been observable during site surveys if present and it was not observed.
Round-leaved filaree (California macrophylla)	CRPR 1B	Habitat: Occurs on clay soils in cismontane woodlands and valley and foothill grasslands. <u>Elevation:</u> 15-1200 meters. <u>Blooms:</u> March–May.	Absent. Suitable habitat is absent on the site due to on-going human disturbance.

Species	Status	Habitat	*Occurrence in the Study Area
Congdon's tarplant (Centromadia parryi ssp. congdonii)	CRPR 1B	Habitat: Occurs on valley and foothill grasslands on alkaline soils. Species is highly tolerant of disturbed habitats. <u>Elevation</u> : 0-230 meters. <u>Blooms</u> : Annual herb; May- November.	Absent. Although potential habitat is present within ruderal grasslands of the site, site surveys were conducted within the blooming season for this species and it was not observed. The closest known occurrence is approximately 1.5 miles southwest of the site (Occurrence #17; CNDDB 2016).
Point Reyes bird's-beak (Cordylanthus maritimus ssp. palustris)	CNPS 1B	<u>Habitats</u> : Found in coastal salt areas such as marshes and swamps. <u>Elevation</u> : 0-1900 meters. <u>Blooms</u> : June-October.	Absent. No suitable habitat occurs on the site for this species.
Hospital Canyon larkspur (<i>Delphinium californicum</i> ssp. <i>interius</i>)	CNPS 1B	<u>Habitat:</u> Occurs in chaparral openings and mesic cismontane woodlands. <u>Elevation:</u> 230-1095 meters. <u>Blooms:</u> April-June.	Absent. No suitable habitat occurs on the site for this species.
Western leatherwood (Dirca occidentalis)	CNPS 1B	<u>Habitats</u> : Found in mesic habitats such as broadleafed upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, north coast coniferous forest, riparian forest, and riparian woodland. <u>Elevation</u> : 30-395 meters. <u>Blooms</u> : January-April.	Absent. No suitable habitat occurs on the site for this species.
Prostrate Vernal Pool Navarretia (Navarretia prostrate)	CNPS 1B	Habitat: Occurs in coastal scrub, meadows and seeps, valley and foothill grasslands on alkaline soils, and vernal pools on mesic soils. Elevation: 15-700 meters. Blooms: April-July.	Absent. No suitable habitat occurs on the site for this species.
California Alkali Grass (Puccinellia simplex)	CNPS 1B	Habitat: Occurs in alkaline, vernally mesic, sinks, flats, and lake margins within chenopod scrub, meadows and seeps, Valley and foothill grasslands, and vernal pools. <u>Elevation</u> : 2-930 meters. <u>Blooms</u> : March-May.	Absent. No suitable habitat occurs on the site for this species.
Hoover's button-celery (Eryngium aristulatum var. hooveri)	CRPR 1B	<u>Habitat</u> : Occurs in vernal pools. <u>Elevation</u> : 3-45 meters. Blooms: July-August.	Absent. No suitable habitat occurs on the site for this species.
San Joaquin Spearscale (Extriplex joaquiniana)	CNPS 1B	Habitat: Occurs in chenopod scrub, meadows and seeps, playas, and valley and foothill grasslands on alkaline soils. <u>Elevation</u> : 1-835 meters. <u>Blooms</u> : April-October.	Absent. No suitable habitat occurs on the site for this species.
Chaparral ragwort (Senecio aphanactis)	CNPS 2.2	Habitat: Chaparral, cismontane woodland, and coastal scrub, sometimes alkaline soils. <u>Elevation</u> : 15-800 meters. <u>Blooms</u> : January-April.	Absent. No suitable habitat occurs on the site for this species.

Other special status plants listed by CNPS - cont'd



Species	Status	Habitat	*Occurrence in the Study Area
Maple-leaved checkerbloom (<i>Sidalcea malachroides</i>)	CNPS 1B	Habitat: Occurs in broadleaved upland forests, coastal prairie, coastal scrub, North Coast coniferous forests, and riparian woodland, often in disturbed areas. <u>Elevation:</u> 0-730 meters. <u>Blooms:</u> March-August.	Absent. No suitable habitat occurs on the site for this species.
Slender-leaved Pondweed (Stuckenia filiformis)	CNPS 2	Shallow freshwater marshes and swamps between 300 and 2150 meters.	Absent. No suitable habitat occurs on the site for this species.
Saline clover (Trifolium hydrophilum)	CRPR 1B	Habitat: Marshes and swamps, valley and foothill grasslands on mesic or alkaline soils, and vernal pools. Elevation: 0-300 meters. Blooms: April–June.	Absent. No suitable habitat occurs on the site for this species.

Other special status plants listed by CNPS - cont'd

ANIMALS (adapted from CDFW 2016 and USFWS 2016)

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

Species	Status	Habitat	*Occurrence in the Study Area
Vernal pool tadpole shrimp (Lepidurus packardi)	FE	Occurs in vernal pools of California. Vernal pools and swales in the Sacramento Valley containing clear to highly turbid water.	Absent. Suitable habitat for vernal pool tadpole shrimp in the form of vernal pools is absent from the study area.
Steelhead - Central California Coast DPS (Oncorhynchus mykiss irideus)	FT, CSC	Spawn in freshwater rivers or streams in the spring and spend the remainder of their life in the ocean.	Present. Rivers and creeks are absent from the main part of the site.
Longfin smelt (Spirinchus thaleichthys)	CT, CSC	Andromous. In California, occurs in Sacramento-San Joaquin estuary and one record from Monterey Bay. Spawns in sandy to gravely substrates near the ocean November to June; some populations are landlocked.	Absent. Rivers and creeks are absent from the main part of the site, and therefore, suitable habitat is absent from the onsite portion of the project. The project site is outside of the known range for this species.
California Tiger Salamander (Ambystoma californiense)	FT, CT	Breeds in vernal pools and stock ponds of central California. Adults aestivate in grassland habitats adjacent to the breeding sites.	Absent. The site does not support breeding habitat, and although it does support potentially suitable upland habitat(California ground squirrel burrows onsite). There are no known breeding pools in the vicinity of the site. The nearest recorded observation is more than 3 miles from the site (CNDDB 2016). Therefore, CTS are considered to be absent from the site.
California Red-legged Frog (Rana draytonii)	FT, CSC	Rivers, creeks and stock ponds of the Sierra foothills and coast range, preferring pools with overhanging vegetation.	Absent. The site does not support breeding habitat and supports moderately suitable upland habitat. The nearest recorded observation is more than 3 miles from the site (CNDDB 2016). Therefore, CRLF are considered to be absent from the site.

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act California Black Rail CT, CP Occurs in coastal and freshwater **Unlikely.** Suitable habitat for this species is (Laterallus jamaicensis marshes, estuaries, and tidal absent from the site, however, given the proximity of the site to suitable habitat for *coturniculus*) slough areas. this species, and the tidal influence on Coyote Creek, this species may move onto or over the site from time to time. FE, CE. California clapper rail Occurs in tidal salt and brackish **Unlikely.** Suitable habitat for this species is (Rallus longirostris obsoletus) marshes of the San Francisco absent from the site, however, given the CP Bay and historically in tidal proximity of the site to suitable habitat for estuaries from Marin to San Luis this species, and the tidal influence on Obispo Counties, CA. Coyote Creek, this species may move onto or over the site from time to time. California least tern FE. CE. Occurs in central to southern Unlikely. Suitable nesting habitat for this California April to November. (Sterna antillarum browni) CP species is absent from the site, however, Found in and near coastal given the proximity of the site to suitable habitat including coasts, habitat for this species, this species may beaches, bays, estuaries, move onto or over the site from time to time lagoons, lakes, and rivers. during periods of migration. FT. **Possible.** Breeding and foraging habitat is Western snowy plover (nesting) Uses man-made agricultural available along Coyote Creek levee. The (Charadrius alexandrines CSC wastewater ponds and reservoir margins. Breeds on barren to nearest recorded observation is more than 3 nivosus) sparsely vegetated ground at miles to the east of the study site (CNDDB alkaline or saline lakes, 2010). reservoirs, ponds, and riverine sand bar. CT Swainson's hawk (nesting) Breeds in stands with few trees Unlikely. The site is more than 18 miles to (Buteo swainsoni) in juniper-sage flats, riparian the north of the nearest recorded location areas, and in oak savannah. (CNDDB 2016), which is in Coyote Valley. Requires adjacent suitable Although the Swainson's hawk's range foraging areas such as appears to be expanding in this region, and grasslands or alfalfa fields Swainson's hawks are known to travel ten supporting rodent populations. miles from a nest tree to forage, it is unlikely a Swainson's hawk would forage as far as the site. CP American Peregrine Falcon Individuals breed on cliffs in the Possible. Although nesting habitat is not present on the site, foraging habitat is Sierra or in coastal habitats; (nesting) (Falco peregrines anatum) occurs in many habitats of the present onsite. The nearest recorded state during migration and observance of the American peregrine winter falcon is more than 3 miles from the site (CNDDB 2016), however, the American peregrine falcon is known from the San Jose area therefore, this species could forage over the site from time to time. White-tailed Kite (nesting) CP Open grasslands and agricultural **Possible**. Suitable breeding habitat exists areas throughout central onsite for this species and foraging habitat is (Elanus leucurus) California. available in the agricultural field and annual grassland habitats onsite. Saltmarsh Common Yellowthroat CSC Breeds in herbaceous wetlands **Possible**. This species is known to be in the area of the site, and may breed adjacent to (Geothlypis trichas sinuosa) and salt marshes of the San Francisco Bay area, can also be the site in the Coyote Creek riparian found in non-breeding along the corridor. California Coast. Nests in thick herbaceous vegetation up to one meter above the ground or over water.

ANIMALS (adapted from CDFW 2016 and USFWS 2016) - cont'd



ANIMALS – cont'd.

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Species	Status	Habitat	*Occurrence in the Study Area
Bank Swallow (nesting) (<i>Riparia riparia</i>)	СТ	Occurs in open areas near flowing water, nests in steep banks along inland water or coast. State-wide.	Absent . Suitable habitat for this species is absent from the site.
Western yellow-billed cuckoo (nesting) (Coccyzus americanus occidentalis)	FC, CE	Breed in large blocks of riparian habitats, particularly cottonwoods and willows.	Unlikely . Dense riparian habitat required by the western yellow-billed cuckoo is absent from the site and the area and suitable riparian habitat is limited to the area of the proposed off-site outfall work.
Townsend's big-eared bat (Corynorhinus townsendii)	CPE	Primarily a cave-dwelling bat that may also roost in buildings. Occurs in a variety of habitats of the state.	Possible . Foraging habitat is present on the site; however, potential roosting habitat is absent from the site.
Salt-marsh Harvest Mouse (Reithrodontomys raviventris)	FE, CE, CP	Occurs in the salt and brackish marshes of Corte Madera, Richmond, and South San Francisco Bay, especially those with pickleweed and saltgrass.	Absent . Suitable habitat for this species is absent from the site.
Foothill Yellow-legged Frog (<i>Rana boylii</i>)	CSC	Occurs in swiftly flowing streams and rivers with rocky substrate with open, sunny banks in forest, chaparral, and woodland habitats, and can sometimes be found in isolated pools.	Unlikely. Suitable habitats required by this species are absent from the site. The only water feature on the site is Coyote Creek near where the off-site outfall is proposed, which is not ideal FYLF habitat.
Western Pond Turtle (<i>Actinemys marmorata</i>)	CSC	Intermittent and permanent waterways including streams, marshes, rivers, ponds and lakes. Open slow-moving water of rivers and creeks of central California with rocks and logs for basking.	Unlikely. Suitable habitat for the western pond turtle is present adjacent to the site within the Coyote Creek riparian corridor. The WPT may move onto the site from time to time, however, it is not expected to remain onsite.
Northern harrier (nesting) (Circus cyaneus)	CSC	Frequents meadows, grasslands, open rangelands, freshwater emergent wetlands; uncommon in wooded habitats.	Possible. Harriers may forage over the site and may nest on or adjacent to the site.
Western Burrowing Owl (Athene cunicularia)	CSC	Open, dry grasslands, deserts and ruderal areas. Requires suitable burrows. Often associated with California ground squirrels.	Possible. The site is within the burrowing owl fee area for the Santa Clara Valley Habitat Conservation Plan (SCVHP), and burrowing owls are known to occur adjacent to the site as well as artificial burrows specifically designed for burrowing owls near the off-site utility alignments to the west of the site. The site currently supports California ground squirrel burrows, and provides potential habitat for BUOW. Surveys for burrowing owl per the HCP protocol were conducted on the main portion of the site on June 20 and October 18, 2016 and the utility alignment was surveyed on October 18, 2016; BUOW were not observed onsite during the surveys.



ANIMALS - cont'd.

Species	Status	Habitat	*Occurrence in the Study Area
Tricolored Blackbird (Agelaius tricolor)	CSC	Breeds near fresh water, primarily emergent wetlands, with tall thickets. Forages in grassland and cropland habitats.	Possible. Suitable tricolored blackbird habitat is absent from the main portion of the site, however, the riparian habitat along the Coyote Creek corridor supports suitable nesting habitat for the tricolored blackbird. The SCVHP identifies the eastern edge corner of this site to be within 250 feet of potentially suitable tricolored blackbird nesting habitat. Condition 17 of the SCVHP requires surveys for tricolored blackbirds, as potentially suitable habitat exists adjacent to (and within 250 feet of) the site within Coyote Creek.
Alameda song sparrow (<i>Melospiza melodia pusillula</i>)	CSC	Found in tidal salt marsh habitat with exposed ground for foraging with no more than 2-5 cm between bases of plants. Current range is generally only along the San Francisco Bay.	Possible. This species is known to be in the area of the site, and may breed adjacent to the site in the Coyote Creek riparian corridor.
California yellow warbler (Dendroica petechia brewster)	CSC	Migrants move through many habitats of Sierra and its foothills. This species breeds in riparian thickets of alder, willow and cottonwoods.	Possible. This species is known to be in the area of the site, and may breed adjacent to the site in the Coyote Creek riparian corridor.
Salt-marsh Wandering Shrew (Sorex vagrans halicoetes)	CSC	Found in salt marshes along the San Francisco Bay.	Absent. Suitable habitat for this species is absent from the site.
San Francisco Dusky-Footed Woodrat (Neotoma fuscipes annectens)	CSC	Found in hardwood forests, oak riparian and shrub habitats.	Possible. Riparian habitat along Coyote Creek provides potentially suitable habitat for the dusky-footed woodrat.
Ringtail (Bassariscus astutus)	СР	Occurs in riparian and heavily wooded habitats near water.	Possible. Riparian habitat along Coyote Creek provides potentially suitable habitat for the ringtail adjacent to the site, however, it is likely that any ringtail would not stray far from these riparian areas and would be considered to be unlikely to occur on the main portion of the site.

*Explanation of Occurrence Designations and Status Codes

Present: Species observed on the site at time of field surveys or during recent past.

Likely: Species not observed on the site, but it may reasonably be expected to occur there on a regular basis.

Possible: Species not observed on the site, but it could occur there from time to time.

Unlikely: Species not observed on the site, and would not be expected to occur there except, perhaps, as a transient. Absent: Species not observed on the site, and precluded from occurring there because habitat requirements not met.

*Explanation of Occurrence Designations and Status Codes (cont'd).

STATU	S CODES		
FE	Federally Endangered	CE	California Endangered
FT	Federally Threatened	СТ	California Threatened
FPE	Federally Endangered (Proposed)	CR	California Rare
FC	Federal Candidate	CP	California Protected
CSC	California Species of Special Concern	CPE	California Endangered (Proposed)
CNPS	California Native Plant Society Listing		
1A	Plants Presumed Extinct in California	3	Plants about which we need more
		22	



1B	Plants Rare, Threatened, or Endangered in
	California and elsewhere
2	Plants Rare, Threatened, or Endangered in
	California, but more common elsewhere

information – a review list Plants of limited distribution – a watch list

2.5 JURISDICTIONAL WATERS

Jurisdictional waters include rivers, creeks, and drainages that have a defined bed and bank and which, at the very least, carry ephemeral flows. Jurisdictional waters also include lakes, ponds, reservoirs, and wetlands. Such waters may be subject to the regulatory authority of the U.S. Army Corps of Engineers (USACE), the California Department of Fish and Wildlife (CDFW), and the California Regional Water Quality Control Board (RWQCB). See Section 3.2.4 of this report for additional information.

4

A wetland occurs in the southwestern portion of the main site which may be claimed by the USACE and/or RWQCB.



3 IMPACTS AND MITIGATIONS

3.1 SIGNIFICANCE CRITERIA

General plans, area plans, and specific projects are subject to the provisions of the California Environmental Quality Act (CEQA). The purpose of CEQA is to assess the impacts of proposed projects on the environment before they are constructed. For example, site development may require the removal of some or all of its existing vegetation. Animals associated with this vegetation could be destroyed or displaced. Animals adapted to humans, roads, buildings, pets, etc., may replace those species formerly occurring on a site. Plants and animals that are state and/or federally listed as threatened or endangered may be destroyed or displaced. Sensitive habitats such as wetlands and riparian woodlands may be altered or destroyed. These impacts may be considered significant. According to *Guide to the California Environmental Quality Act* (Remy et al. 1996), "Significant effect on the environment" means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic interest. Specific project impacts to biological resources may be considered "significant" if they will:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

- Reduce substantially the habitat of a fish or wildlife species, including causing a fish or wildlife population to drop below self-sustaining levels or threaten to eliminate an animal community.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

For the purposes of this report, it is assumed that impacts will be buildout of the entire property outside of the proposed riparian setbacks.

3.2 RELEVANT GOALS, POLICIES, AND LAWS

3.2.1 Threatened and Endangered Species

State and federal "endangered species" legislation has provided the California Department of Fish and Wildlife (CDFW) and the U.S. Fish and Wildlife Service (USFWS) with a mechanism for conserving and protecting plant and animal species of limited distribution and/or low or declining populations. Species listed as threatened or endangered under provisions of the state and federal Endangered Species Acts, candidate species for such listing, state species of special concern, and some plants listed as endangered by the California Native Plant Society are collectively referred to as "species of special status." Permits may be required from both the CDFW and USFWS if activities associated with a proposed project will result in the take of a listed species. To "take" a listed species, as defined by the state of California, is "to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill" said species (California Fish and Game Code, Section 86). "Take" is more broadly defined by the federal Endangered Species Act to include "harm" of a listed species (16 USC, Section 1532(19), 50 CFR, Section 17.3). Furthermore, the CDFW and the USFWS are responding agencies under the California Environmental Quality Act (CEQA). Both agencies review CEQA documents in order to determine the adequacy of their treatment of endangered species issues and to make project-specific recommendations for their conservation.

3.2.2 Migratory Birds

State and federal laws also protect most bird species. The Federal Migratory Bird Treaty Act (FMBTA: 16 U.S.C., scc. 703, Supp. I, 1989) prohibits killing, possessing, or trading in migratory



birds, except in accordance with regulations prescribed by the Secretary of the Interior. This act encompasses whole birds, parts of birds, and bird nests and eggs.

3.2.3 Birds of Prey

Birds of prey are protected in California under provisions of the State Fish and Game Code, Section 3503.5, which states that it is "unlawful to take, possess, or destroy any birds in the order *Falconiformes* or *Strigiformes* (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto". Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "taking" by the CDFW.

Additionally, the Bald and Golden Eagle Protection Act (16 U.S.C., scc. 668-668c) prohibits anyone from taking bald or golden eagles, including their parts, nests, or eggs, unless authorized under a federal permit. The act prohibits any disturbance that directly affects an eagle or an active eagle nest as well as any disturbance caused by humans around a previously used nest site during a time when eagles are not present such that it agitates or bothers an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death or nest abandonment.

3.2.4 Bats

Section 2000 and 4150 of the California Fish and Game Code states that it is unlawful to take or possess a number of species, including bats, without a license or permit, as required by Section 3007. Additionally, Title 14 of the California Code of Regulations states it is unlawful to harass, herd, or drive a number of species, including bats. To harass is defined as "an intentional act which disrupts an animal's normal behavior patterns, which includes, but is not limited to, breeding, feeding or sheltering." For these reasons, bat colonies in particular are considered to be sensitive and therefore, disturbances that cause harm to bat colonies are unlawful.

3.2.5 Wetlands and Other "Jurisdictional Waters"

Natural drainage channels and adjacent wetlands may be considered "Waters of the United States" (hereafter referred to as "jurisdictional waters") subject to the jurisdiction of the U.S. Army Corps of Engineers (USACE). The extent of jurisdiction has been defined in the Code of Federal



Regulations but has also been subject to interpretation of the federal courts. Jurisdictional waters generally include:

- All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- All interstate waters including interstate wetlands:
- All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce;
- All impoundments of waters otherwise defined as waters of the United States under the definition;
- Tributaries of waters identified in paragraphs (a)(1)-(4) (i.e. the bulleted items above).

As determined by the United States Supreme Court in *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers* (the SWANCC decision), channels and wetlands isolated from other jurisdictional waters cannot be considered jurisdictional on the basis of their use, hypothetical or observed, by migratory birds. However, the U.S Supreme Court decisions *Rapanos v. United States* and *Carabell v. U.S. Army Corps of Engineers* (referred together as the Rapanos decision) impose a "significant nexus" test for federal jurisdiction over wetlands. In June 2007, the USACE and Environmental Protection Agency (EPA) established guidelines for applying the significant nexus standard. This standard includes 1) a case-by-case analysis of the flow characteristics and functions of the tributary or wetland to determine if they significantly affect the chemical, physical, and biological integrity of downstream navigable waters and 2) consideration of hydrologic and ecologic factors (EPA and USACE 2007).

The USACE regulates the filling or grading of such waters under the authority of Section 404 of the Clean Water Act. The extent of jurisdiction within drainage channels is defined by "ordinary high water marks" on opposing channel banks. Wetlands are habitats with soils that are intermittently or permanently saturated, or inundated. The resulting anaerobic conditions select for plant species known as hydrophytes that show a high degree of fidelity to such soils. Wetlands are intermittently or

permanently saturated by water), and wetland hydrology according to methodologies outlined in the 1987 Corps of Engineers Wetlands Delineation Manual (USACE 1987).

All activities that involve the discharge of fill into jurisdictional waters are subject to the permit requirements of the USACE (Wetland Training Institute, Inc. 1991). Such permits are typically issued on the condition that the applicant agrees to provide mitigation that results in no net loss of wetland functions or values. No permit can be issued until the Regional Water Quality Control Board issues a certification (or waiver of such certification) that the proposed activity will meet state water quality standards. The filling of isolated wetlands, over which the USACE has disclaimed jurisdiction under the SWANCC decision, is regulated by the RWQCB. It is unlawful to fill isolated wetlands without filing a Notice of Intent with the RWQCB. The RWQCB is also responsible for enforcing National Pollution Discharge Elimination System (NPDES) permits, including the General Construction Activity Storm Water Permit. All projects requiring federal money must also comply with Executive Order 11990 (Protection of Wetlands).

The California Department of Fish and Wildlife has jurisdiction over the bed and bank of natural drainages according to provisions of Section 1601 and 1602 of the California Fish and Game Code (2003). Activities that would disturb these drainages are regulated by the CDFW via a Streambed Alteration Agreement. Such an agreement typically stipulates that certain measures will be implemented which protect the habitat values of the drainage in question.

3.2.6 Ordinance Sized Trees

The City of San Jose has a Tree Ordinance (Chapter 13.32 of the Municipal Code), which regulates the removal of trees. The City's Tree Ordinance seeks to:

Promote the health, safety, and welfare of the city by controlling the removal of trees in the city, as trees enhance the scenic beauty of the city, significantly reduce the erosion of topsoil, contribute to increased storm water quality, reduce flood hazards and risks of landslides, increase property values, reduce the cost of construction and maintenance of draining systems through the reduction of flow and the need to divert surface waters, contribute to energy efficiency and the reduction of urban temperatures, serve as windbreaks and are prime oxygen producers and air purification systems.

An "ordinance-size tree" is defined as any native or non-native tree with a circumference of 56 inches (diameter of 18 inches) at 24 inches above the natural grade of slope. For multi-trunk trees,



the circumference is measured as the sum of the circumferences of all trunks at 24 inches above the natural grade of slope. The ordinance covers both native and non-native species. A tree removal permit is required from the City prior to the removal of any trees covered under the ordinance. Prior to the issuance of a removal permit, the City requires that a formal tree survey be conducted which indicates the number, species, trunk circumference and location of all trees which will be removed or impacted by the project.

3.2.7 Envision San Jose 2040 General Plan

The Envision San Jose 2040 General Plan (General Plan) aims to protect biological resources when properties are developed in San Jose. Generally, similar types of requirements occur in the General Plan as in the SCVHP. The General Plan includes several policies relevant to biological protections including, but are not limited to, the following:

- Policy MS-21.4: Encourage the maintenance of mature trees, especially natives, on public and private property as an integral part of the community forest. Prior to allowing the removal of any mature tree, pursue all reasonable measures to preserve it.
- Policy MS-21.5: As part of the development review process, preserve protected trees (as defined by the Municipal Code), and other significant trees. Avoid any adverse effect on the health and longevity of protected or other significant trees through appropriate design measures and City of San José 33 Initial Study One South Market Street Residential Project December 2012 construction practices. Special priority should be given to the preservation of native oaks and native sycamores. When tree preservation is not feasible, include appropriate tree replacement, both in number and spread of canopy.
- Policy MS-21.6: As a condition of new development, require, where appropriate, the planting and maintenance of both street trees and trees on private property to achieve a level of tree coverage in compliance with and that implements City laws, policies or guidelines.
- Policy MS-21.9: Where urban development occurs adjacent to natural plant communities (e.g., oak woodland, riparian forest), landscape plantings shall incorporate tree species native to the area and propagated from local sources (generally from within 5-10 miles and preferably from within the same watershed).



- Policy ER-1.4: Minimize the removal of ecologically valuable vegetation such as serpentine and non-serpentine grassland, oak woodland, chaparral, and coastal scrub during development and grading for projects within the City.
- Policy ER-1.5: Preserve and protect oak woodlands, and individual oak trees. Any loss of oak woodland and/or native oak trees must be fully mitigated.
- Policy ER-1.7: Prohibit planting of invasive non-native plant species in oak woodlands, grasslands, chaparral and coastal scrub habitats, and in hillside areas.
- Policy ER-4.1: Preserve and restore, to the greatest extent feasible, habitat areas that support special-status species. Avoid development in such habitats unless no feasible alternatives exist and mitigation is provided of equivalent value.
- Policy ER-4.2: Limit recreational uses in wildlife refuges, nature preserves and wilderness areas in parks to those activities which have minimal impact on sensitive habitats.
- Policy ER-4.3: Prohibit planting of invasive non-native plant species in natural habitats that support special-status species.
- Policy ER-4.4: Require that development projects incorporate mitigation measures to avoid and minimize impacts to individuals of special-status species.
- Policy ER-5.2: Require that development projects incorporate measures to avoid impacts to nesting migratory birds.
- Policy ER-6.3: Employ low-glare lighting in areas developed adjacent to natural areas, including riparian woodlands. Any high-intensity lighting used near natural areas will be placed as close to the ground as possible and directed downward or away from natural areas.
- Policy ER-6.6: Encourage the use of native plants in the landscaping of developed areas adjacent to natural lands.
- Policy ER-6.8: Design and construct development to avoid changes in drainage patterns across adjacent natural areas and for adjacent native trees, such as oaks.

Projects must be consistent will all measures (Goals) of the General Plan.

3.2.8 Santa Clara Valley Habitat Plan

Six local partners (i.e., County of Santa Clara, Santa Clara Valley Transportation Authority; Santa Clara Valley Water District; and the Cities of San Jose, Gilroy, and Morgan Hill) and two wildlife agencies (the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service)



prepared and adopted this multi-species habitat conservation plan, which primarily covers southern Santa Clara County, as well as the City of San Jose with the exception of the bayland areas. The SCVHP addresses listed species and species that are likely to become listed during the plan's 50year permit term. The eighteen covered species include nine plants and nine animals. The animal species covered include, but are not limited to, the California tiger salamander, California redlegged frog, western pond turtle, and western burrowing owl. The SCVHP requires that the agencies comment on reportable interim projects and recommend mitigation measures or project alternatives that would help achieve the preliminary conservation objectives and not preclude important conservation planning options or connectivity between areas of high habitat value. Funding sources for the SCVHP include development fees based on land cover types (natural, agricultural or small vacant sites surrounded by urban development). Additional fees are charged based on the occurrence of certain sensitive habitat types such as serpentine and wetlands.

The project is considered a covered project under the SCVHP. As a result, the project would be subject to conditions and fees of the SCVHP.

3.2.8.1 SCVHP Fees

Chapter 9 of the SCVHP identifies fees that would be required by this project. The following describes fees that are based on the 2016 fee schedule; however, fees are calculated at the time the project submits the SCVHP application, which corresponds to application timing of grading and/or building permits. Thus, the following numbers are provided for a sense of magnitude and should be considered approximate.

The onsite portion of the development area is within Fee Zone B "Mostly Cultivated Agricultural Lands" and the majority of the off-site utility alignments are within Fee Zone A "Ranchlands and Natural Lands." The 2016 SCVHP fees for development of Zone A lands are \$19,159 per acre and Zone B lands are \$13,283 per acre. In addition, a Nitrogen Deposition Fee would also be required at \$4.47 per new vehicle trip. Temporary impact fees, of which much of the utility alignment is expected, are assessed at a fraction of these fees.

3.2.8.2 Conditions on Covered Activities

The SCVHP provides several conditions for covered activities under the SCVHP. These conditions can be found in Chapter 6 of the SCVHP and are summarized below. While all conditions are



summarized, Conditions 1, 3, 4, 5, 11, 12, 15, and 17 would apply to the proposed Winfield Residential Project:

- Condition 1 (page 6-7). Avoid Direct Impacts on Legally Protected Plant and Wildlife Species- Condition 1 instructs developers to avoid direct impacts on legally protected plant and wildlife species, including federally endangered Contra Costa goldfields and fully protected wildlife species including the golden eagle, bald eagle, American peregrine falcon, southern bald eagle, white-tailed kite, California condor, and ring-tailed cat. Several of these species are likely to occur on or forage over the site (golden eagle, bald eagle, white-tailed kite, and ringtail). Condition 1 also protects bird species and their nests that are protected under the Migratory Bird Treaty Act (MBTA); additionally, golden eagles and bald eagles are protected under the Bald and Golden Eagle Protection Act. Additionally, page 6-94 and Table 6-8 identify required surveys for breeding habitat of select covered wildlife species.
 - Condition 1 would apply to project.
- Condition 2 (page 6-9). Incorporate Urban-Reserve System Interface Design Requirements- Condition 2 provides design requirements for the urban-reserve system interface. Some of the design requirements included in Condition 2 are installing non-permeable fences between urban and reserve areas, fencing public roads that run adjacent to reserve areas, minimizing the length of shared boundaries between urban and reserve areas, outdoor lighting limitations, and landscaping requirements.
 - *Not applicable to the project.*
- Condition 3 (page 6-12). Maintain Hydrologic Conditions and Protect Water Quality-(Condition applies to project) Condition 3 is for all projects due to the fact that implementation of projects could result in impacts on watershed health, including impacts to aquatic habitat for species, through changes in hydrology and water quality. This condition incorporates all of the most important measures for water quality protection of the National Pollutant Discharge Elimination System (NPDES) Program of the Clean Water Act. Required measures of Condition 3 are located in Table 6-2 of the SCVHP, which is attached below (Appendix B); these measures relate to water quality and habitat protection during and after project construction. They include measures typically included in a Storm Water Pollution Prevention Plan (SWPPP) but may include measures that are in addition to such plans.
 - Condition 3 would apply to the project.
- Condition 4 (page 6-14). Avoidance and Minimization for In-Stream Projects-Condition 4 minimizes impacts on riparian and aquatic habitat through appropriate design requirements and construction practices and provides avoidance and minimization measures for in-stream projects that may impact stream morphology, aquatic and riparian habitat, flow conditions, covered species, natural communities, and wildlife movement.
 - Condition 4 would apply to the project, however, this is described in the separate biology report for the outfall prepared by H.T. Harvey & Associates.



- Condition 5 (page 6-18). Avoidance and Minimization Measures for In-Stream Operations and Maintenance- Condition 5 provides avoidance and minimization measures for in-stream operations and maintenance activities, which includes, but is not limited to trail, bridge, road, and culvert maintenance, bank stabilization, removal of debris, and vegetation management.
 - Condition 5 would apply to the project, however, this is described in the separate biology report for the outfall prepared by H.T. Harvey & Associates.
- Condition 6 (Page 6-21). Design and Construction Requirements for Covered Transportation Projects- Condition 6 provides requirements for rural development design, construction, and post-construction. Types of projects that Condition 6 includes highway projects, mass transit projects, roadway projects and interchange upgrades, road safety and operational improvements, and dirt road construction.
 - Not applicable to the project.
- Condition 7 (page 6-28). Rural Development Design and Construction Requirements-Condition 7 provides requirements for development design and construction of new development outside of the urban service area including requirements relating to site hydrology, vineyards, private rural roads, vegetation management, soils, and lighting.
 - Not applicable to the project.
- Condition 8 (page 6-35). Implement Avoidance and Minimization Measures for Rural Road Maintenance- Condition 8 provides requirements for rural roads, road median, and barrier maintenance including requirements regarding riparian setbacks, erosion measures, herbicide and pesticide use, seasonal restrictions, mower cleaning, revegetation, ground-disturbing road maintenance, and flow lines.
 - Not applicable to the project.
- Condition 9 (page 6-37). Prepare and Implement a Recreation Plan- Condition 9 requires providing public access to all reserve lands owned by a public entity; each reserve land must provide a recreation plan.
 - Not applicable to the project.
- **Condition 10 (page 6-42). Fuel Buffer-** Condition 10 provides requirements for fuel buffers between 30 and 100 feet of structures. Requirements include measures relating to fuel buffers near structures and on reserve lands; the most notable measure is the requirement for nesting bird surveys prior to any fuel buffer maintenance during the nesting season.
 - Not applicable to the project.
- Condition 11 (page 6-44). Stream and Riparian Setbacks- Condition 11 provides requirements for stream and riparian setbacks; as the development area is within the Urban Service Area, stream setbacks measured from the top of the stream bank should be 35 to 150 feet depending on the category rating of the stream and the slope class. Setbacks for Category 1 streams with 0-30% slopes should be at least 100 feet, and with >30% slopes should be at least 150 feet.



- Condition 11 would apply to the project, however, this is described in the separate biology report for the outfall prepared by H.T. Harvey & Associates.
- Condition 12 (page 6-56). Wetland and Pond Avoidance and Minimization- Condition 12 provides measures to protect wetlands and ponds, including planning actions, design, and construction actions.
 - Condition 12 would apply to the project.
- Condition 13 (page 6-58). Serpentine and Associated Covered Species Avoidance and Minimization- Condition 13 requires surveys for special status plants and the Bay checkerspot butterfly as well as its larval host plant in areas that support serpentine bunchgrass grassland, serpentine rock outcrops, serpentine seeps, and serpentine chaparral. Fees apply for impacts to serpentine habitat.
 - Not applicable to the project.
- Condition 14 (page 6-60). Valley Oak and Blue Oak Woodland Avoidance and Minimization- Condition 14 provides requirements for project planning and project construction, including avoidance of large oaks, guidance on irrigation near oak trees, and a buffer around the root protection zone, roads and pathways within 25 feet of the dripline of an oak tree, trenching, and pruning activities.
 - Not applicable to the project.
- Condition 15 (page 6-62). Western Burrowing Owl- Condition 15 requires preconstruction surveys for burrowing owls in appropriate habitat prior to construction activities, provides avoidance measures for owls and nests in the breeding season and owls in the non-breeding season, and requirements for construction monitoring.
 - Condition 15 would apply to the project.
- Condition 16 (page 6-68) Least Bell's Vireo- Condition 16 requires preconstruction surveys in appropriate habitat for the least Bell's vireo prior to construction activities, and provides avoidance and construction monitoring measures.
 - Not applicable to the project.
- **Condition 17 (page 6-69) Tricolored Blackbird-** Condition 17 requires preconstruction surveys in appropriate habitat for the tricolored blackbird prior to construction activities, and provides avoidance and construction monitoring measures.
 - Condition 17 would apply to the project.
- Condition 18 (page 6-71) San Joaquin Kit Fox- Condition 18 requires preconstruction surveys in appropriate habitat for the San Joaquin kit fox prior to construction activities, and provides avoidance and construction monitoring measures.
 - Not applicable to the project.
- **Condition 19 (page 6-74). Plant Salvage when Impacts are Unavoidable-** Condition 19 provides salvage guidance and requirements for covered plants.
 - Not applicable to the project.



- Condition 20 (page 6-76). Avoid and Minimize Impacts to Covered Plant Occurrences-Condition 20 provides requirements for preconstruction surveys for appropriate covered plants (per habitat).
 - Not applicable to the project.

3.3 IMPACTS SPECIFIC TO THE PROJECT

The intended project is the development of approximately 66.5 acres of the main portion of the site, and off-site utility infrastructure areas. These impacts could include nest failure of breeding migratory birds, loss of ordinance-sized trees, and loss of potential habitat for sensitive species such as habitat for the western burrowing owl. As discussed above, activities resulting in impacts to biotic resources may be regulated by local, state, and federal laws. The natural resource issues specific to this project are discussed in detail below.

3.3.1 Loss of Habitat for Special Status Plants

Potential Impact. Of the 20 special status plant species that occur regionally within habitats that are broadly similar to those of the project site all are considered absent and/or unlikely to occur within the site due to the facts that they are not known to occur near the site or they occur within habitats that are subtly and importantly different from those of the site.

Mitigation. None warranted.

3.3.2 Loss of Habitat for Special Status Animals

Potential Impact. Twenty-nine (29) special status animal species occur, or once occurred, regionally. Of these, sixteen species would be absent or unlikely to occur on the site due to a lack of suitable habitat for these species. The species that would be absent or unlikely to occur include the Bay checkerspot butterfly, vernal pool tadpole shrimp, longfin smelt, steelhead, California tiger salamander, California red-legged frog, foothill yellow-legged frog, western pond turtle, Alameda whipsnake, California black rail, California clapper rail, California least tern, Swainson's hawk, bank swallow, western yellow-billed cuckoo, salt-marsh wandering shrew, and salt-marsh harvest mouse.

The twelve remaining special status animal species from Table 1 potentially occur more frequently as potential foragers, transients, may be resident to the site, or they may occur within areas adjacent to the site. These include western snowy plover, American peregrine falcon, northern harrier,

white-tailed kite, western burrowing owl, saltmarsh common yellowthroat, tricolored blackbird, Alameda song sparrow, California yellow warbler, Townsend's big-eared bat, San Francisco duskyfooted woodrat, and ringtail. Several of these species may also roost or nest in trees or shrubs occurring within or adjacent to the site. These species are discussed below:

The western snowy plover, American peregrine falcon, northern harrier, white-tailed kite, western burrowing owl, saltmarsh common yellowthroat, tricolored blackbird, and Alameda song sparrow, and California yellow warbler may nest onsite or adjacent to the site, and the American peregrine falcon would be expected to forage on and over the site.

No evidence of bats was observed during reconnaissance surveys, and it is highly unlikely that the site supports roosting habitat for bats; however, individual Townsend's big-eared bats may forage within the site from time to time. Loss of the potential forage habitat for this bat species would be considered a less-than-significant impact due to the large areas of similar or higher quality bat forage habitat occurring within the vicinity of the project site.

While individuals and evidence of either were not observed, the San Francisco dusky-footed woodrat and ringtail are considered to be species that could occur within the Coyote Creek riparian corridor. The majority of the project site does not represent unique habitat for either species, but both could utilize the riparian habitat for foraging habitat and/or nesting/denning habitat.

Potential impacts to specific species are discussed further below.

Mitigation. No mitigation warranted.

3.3.3 Loss of Habitat for Native Wildlife

Potential Impact. The habitats of the site comprise only a small portion of the regionally available habitat for plant and animal species that are expected to use the habitat. The proposed project would result in the loss of an agricultural field and annual grassland habitat, both of which have been partially disturbed through introduction of non-native plants, historic use of the site, and development and use of a residential areas and roadways. The Coyote Creek riparian corridor habitat has a high degree of native species in the canopy and thus supports high quality habitat for local species. The loss of a small amount of riparian habitat is not expected to result in a significant



effect on local wildlife. Therefore, impacts due to the loss of these habitats for native wildlife resulting from the proposed project are considered less-than-significant.

In addition, the project would be a covered project under the SCVHP. Therefore, the project is subject to paying SCVHP fees, which provide funding into the regional conservation program of the SCVHP that seeks to preserve equal or higher quality habitat within the Habitat Plan Permit Area (generally the Santa Clara County).

Mitigation. No mitigation would be warranted for the loss of habitat for native wildlife.

3.3.4 Interference with the Movement of Native Wildlife

Potential Impact. Buildout of the site would not constrain native wildlife movement, as the only corridor is the Coyote Creek riparian corridor at the eastern edge of the project site, and the only impacts to this corridor is an outfall into Coyote Creek, which is assessed within a separate report prepared by H.T. Harvey and Associates. Animals currently using Coyote Creek as a corridor are expected to continue to use it at buildout of the project site. The project would therefore result in a less-than-significant interference on the movement of native wildlife.

In addition, the project would be a covered project under the SCVHP. Therefore, the project is subject to paying SCVHP fees, which provide funding into the regional conservation program of the SCVHP that seeks to preserve equal or higher quality habitat within the Habitat Plan Permit Area (generally the Santa Clara County).

Mitigation. No mitigation would be warranted for interference with the movement of native wildlife.

3.3.5 Impacts to Nesting Migratory Bird Including Nesting Raptors and Tri-Colored Blackbirds, and other Protected Birds

Potential Impacts. Trees and large shrubs of the site and adjacent Coyote Creek riparian corridor and landscaped areas may support nesting birds and raptors. Buildout of the project during the nesting period for migratory birds (i.e., typically between February 1 to August 31), including initial site grading, soil excavation, and/or tree and vegetation removal, poses a risk of nest abandonment and death of any live eggs or young that may be present within the nest within or near the site. Such an effect would be considered a significant impact. To ensure that any active nests will not be



disturbed and individual birds will not be harmed by construction activities, the following measures should be followed.

Additionally, although unlikely to occur on the main portion of the site itself, the SCVHP identifies this site to be within 250 feet of potentially suitable tricolored blackbird nesting habitat, thus requiring pre-construction surveys in accordance with the Condition 17 of the SCVHP. Measures to ensure compliance with this condition are included below as Mitigation Measure 3.3.5b.

Mitigation. The following measures will ensure that active migratory bird nests, including tricolored blackbirds, will not be disturbed and individual birds will not be harmed by construction activities, especially including tree removal. Completion of the following measures, including Mitigation Measure 3.3.5a and 3.3.5b, will reduce the potential impacts to nesting migratory birds, including tricolored blackbirds, to a less-than-significant level.

Mitigation Measure 3.3.5a. If initial site disturbance activities, including tree, shrub, or vegetation removal, are to occur during the breeding season (typically February 1 to August 31), a qualified biologist would conduct pre-construction surveys for nesting migratory birds onsite and within 250 feet (for raptors) of the site, where accessible. The survey should occur within 14-days of the onset of ground disturbance if disturbances are to commence between February 1 and June 30 and within 30-days prior to the onset of ground disturbance between July 1 and August 31. If a nesting migratory bird were to be detected, an appropriate construction-free buffer would be established. Actual size of buffer, which would be determined by the project biologist, would depend on species, topography, and type of activity that would occur in the vicinity of the nest. The project buffer would be monitored periodically by the project biologist to ensure compliance. After the nest is completed, as determined by the biologist, the buffer would no longer be required.

Mitigation Measure 3.3.5b. Tricolored Blackbird – The SCVHP identifies this site to be within 250 feet of potentially suitable tricolored blackbird nesting habitat occurring along Coyote Creek. Surveys for tricolored blackbirds within 250 feet of this habitat, where visual access is possible, would be required prior to start of construction following protocols in Condition 17 in Chapter 6 of the SCVHP. Such protocols include:



- Prior to any ground disturbance a qualified biologist would do a background assessment to determine if there has been nesting at the site or near the site in the past 5 years. This includes checking the CNDDB, contacting local experts, and looking for evidence of historical nesting (i.e., old nests).
- If no nesting in the past 5 years is evident, the qualified biologist would conduct a preconstruction survey in areas identified in the habitat survey as supporting potential tricolored blackbird nesting habitat. Surveys would be made at the appropriate times of year when nesting use is expected to occur. The surveys would document the presence or absence of nesting colonies of tricolored blackbird. Surveys will conclude no more than two calendar days prior to construction, per Condition 17 of Chapter 6 in the SCVHP.
- Should a nesting colony of tricolored blackbirds be located, a 250-foot construction-free buffer would be established from the edge of all hydric vegetation associated with the nest site, and the nest site, the buffer would be avoided, and the CDFW and USFWS would be notified immediately.
- If construction occurs onsite during the nesting season and when the 250-foot buffer is in place around active nesting habitat, a qualified biologist would conduct periodic monitoring of the site to ensure the 250-foot buffer is enforced. The biologist would have authority to increase the buffer size if needed based on tricolored blackbird behavior at the active nesting area.
- If active tricolored blackbird nesting occurs within 250 feet of the project site, and construction occurs during the active nesting period resulting in the need for a buffer, the qualified biologist would also conduct training for construction personnel in avoidance procedures, buffer zones, and safety protocols to ensure no impacts to the nest.

3.3.6 Impacts to Western Burrowing Owls

Potential Impacts. The site is within the burrowing owl fee area for the SCVHP, and burrowing owls are known to occur adjacent to the site as well as artificial burrows specifically designed for burrowing owls near the off-site utility alignments to the west of the site. The site currently supports California ground squirrel burrows, and provides potential habitat for burrowing owls. Surveys for burrowing owl per the HCP protocol were conducted on the main portion of the site on June 20 and October 18, 2016 and the utility alignment was surveyed on October 18, 2016; burrowing owls were not observed onsite during the surveys. As the site is within the burrowing owl fee zone, the



project is required to conduct pre-construction surveys in accordance with the Condition 15 of the SCVHP. Measures to ensure compliance with this condition are included below as Mitigation Measure 3.3.6.

Should site grading occur during the nesting season for this species (February 1 through August 31), nests and nestlings that may be present would likely be destroyed. Overwintering burrowing owls may also be buried in their roost burrows outside of the nesting season (September 1 through January 31). Any actions related to site development that result in the mortality of burrowing owls would constitute a violation of the federal Migratory Bird Treaty Act and provisions of the California Fish and Game Code. Therefore, the mortality of burrowing owls would constitute a significant impact under CEQA.

Consistency with Envision San Jose 2040 General Plan- The proposed project will ensure consistency with Goal ER-4 and 5 as the project mitigation requires avoidance and minimization of impacts to individual burrowing owls, and, under the SCVHP, the project will be mitigating adequately for impacts to habitat of the site that supports breeding borrowing owls.

Mitigation. The following measures will ensure that burrowing owls will not be harmed by construction activities. Completion of the following measures will reduce the potential impacts to burrowing owls to a less-than-significant level.

Mitigation Measure 3.3.6a. The current SCVHP burrowing owl fee is \$54,781 per acre of impact to "occupied burrowing owl nesting habitat," and would be charged on the area on which land cover fees of the SCVHP are levied (Section 3.2.7). LOA's analysis of the property determined that the site is considered to be potential nesting and foraging habitat for burrowing owls and, thus, meets the criteria for occupied burrowing owl nesting habitat under the SCVHP. The onsite portion of agricultural fields (approximately 60 acres; Zone B fees) and the off-site annual grassland through which the utility alignment is planned to run (approximately 32.61 acres; Zone A fees) will incur burrowing owl fees in addition to the Zone fees. Temporary impact fees, of which much of the utility alignment is expected, are assessed at a fraction of these fees.

To mitigate for impacts to burrowing owl habitat, the applicant would pay the burrowing owl fee per acre of occupied burrowing owl nesting habitat impacted as a result of project buildout.



Payment of the SCVHP burrowing owl fee for impacts to burrowing owl habitat would reduce project impacts to burrowing owl habitat to a less-than-significant level.

Mitigation Measure 3.3.6b: Preconstruction surveys are required to ascertain whether or not burrowing owls occupy burrows on the site and off-site elements prior to construction. These surveys consist of a minimum of two surveys, with the first survey no more than 14 days prior to initial construction activities (i.e. vegetation removal, grading, excavation, etc.) and the second survey conducted no more than 2 days prior to initial construction activities. If no burrowing owls or fresh sign of burrowing owls are observed during pre-construction surveys, construction may continue; however, if a burrowing owl is observed during these surveys, occupied burrows will be identified by the monitoring biologist and a buffer, as described in Mitigation Measure 3.3.6c, will be established.

• If an active nest is found onsite, a 250-foot non-disturbance buffer will be established around all nest sites as identified and defined by a qualified biologist. If the biologist determines that the nest is vacant, the non-disturbance buffer zone may be removed. The SCVHP specifies that a vacation from the site for a week or more by a burrowing owl, as determined by a qualified biologist, would constitute a voluntary relocation by the owl, and the qualified biologist could then take measures to collapse suitable burrows of the site to discourage reoccupation. The biologist will supervise hand excavation of the burrow to prevent reoccupation only after receiving approval from the wildlife agencies (SCVHP, Chapter 6, Condition 15).

For permission to encroach within 250 feet of such burrows during the nesting season (February 1 through August 31), an Avoidance, Minimization, and Monitoring Plan would need to be prepared and approved by the Implementing Entity and the Wildlife Agencies prior to such encroachment (review Chapter 6, pp. 6-64 & 6-65, of the SCVHP for further detail).

• Should a burrowing owl be located onsite in the non-breeding season (September through January), construction activities would not be allowed within this 250-foot buffer of the active burrow(s) used by any burrowing owl unless the following avoidance measures are adhered to:



- A qualified biologist monitors the owls for at least 3 days prior to construction to determine baseline foraging behavior (i.e., behavior without construction).
- The same qualified biologist monitors the owls during construction and finds no change in owl foraging behavior in response to construction activities.
- If there is any change in owl nesting and foraging behavior as a result of construction activities, these activities will cease within the 250-foot buffer.
- If the owls are gone for at least one week, the project proponent may request approval from the Implementing Entity that a qualified biologist excavates usable burrows to prevent owls from reoccupying the site. After all usable burrows are excavated, the buffer zone will be removed and construction may continue;

Mitigation Measure 3.3.6c: The SCVHP stipulates that passive relocation or exclusion of burrowing owls would not be allowed until a positive regional growth trend is achieved as defined in Section 5.4.6 of the SCVHP; however, a project may qualify for an exception to this prohibition. In the event that voluntary relocation of site burrowing owls does not occur (defined as owls of the site having vacated the site for 10 or more consecutive days), permission to engage in passive relocation during the non-breeding season would need to be requested through the standard application process (Section 6.8 of the SCVHP). Application for an exception would need additional information including a relocation plan/schedule and documentation by a qualified biologist that owls have occupied the site for the full year without vacating the site for 10 or more consecutive days. The application would need to be submitted to the Implementing Entity, and the Wildlife Agencies would then evaluate the application and make a determination for granting the exception. If passive relocation is granted, additional measures may be required by the Implementing Entity.

However, if the owls voluntarily vacate the site for 10 or more consecutive days, as documented by a qualified biologist, the applicant could seek permission to have the qualified biologist take measures to collapse vacated and other suitable burrows to ensure that owls do not recolonize the site.



3.3.7 Potential Impacts to San Francisco Dusky-Footed Woodrat and Ringtail Individuals Potential Impacts. The Coyote Creek riparian corridor habitat provides potentially suitable forage and nesting/denning habitat for the San Francisco dusky-footed woodrat and the ringtail. An individual could occur within the project site prior to project grading and/or vegetation removal. Direct mortality or injury to an individual of these species would be considered a significant impact under CEQA. However, reasonable measures, described below, could be implemented that would avoid impacts to individual riparian species.

Mitigation. Implementation of the following mitigation measures would reduce impacts to the San Francisco dusky-footed woodrat and ringtail to a less-than-significant level.

Mitigation Measure 3.3.8a. Pre-construction survey. A qualified biologist should conduct a preconstruction survey for San Francisco dusky-footed woodrat nests and ringtail individuals no more than 30 days prior to the onset of construction activities within 50 feet of construction zones. This survey should be conducted prior to vegetation removal or initial grading activities.

Mitigation Measure 3.3.8b. Non-breeding season nest deconstruction for San Francisco dusky-footed woodrat. Identified nests of the San Francisco dusky-footed woodrat should be avoided, where possible. If avoidance is not possible, the nest(s) should be manually deconstructed under supervision of a qualified biologist when helpless young are not present, typically during the non-breeding season (October through January).

Mitigation Measure 3.3.8c. Breeding season temporary buffer for San Francisco dusky-footed woodrat. If it is determined that San Francisco dusky-footed woodrat young may be present during the pre-construction survey (e.g. during the breeding season), a suitable buffer should be established around the nest until the young are independent enough to successfully move from the nest (refer to Mitigation Measure 3.3.6b above).

Mitigation Measure 3.3.8d. Avoidance of ringtail. If an individual ringtail is identified within the project site during preconstruction surveys, a follow-up survey should be conducted within 12-hours of project initiation. If a ringtail is identified during the second survey, the project biologist should continue to monitor the ringtail to ensure that the individual has moved out of any areas of potential danger of its own volition. Project activities can only commence once the project biologist



has determined that the identified animal has moved outside of potential danger from project actions.

Implementation of the above measures would mitigate impacts to San Francisco dusky-footed woodrats and ringtail individuals to a less-than-significant level.

3.3.8 Potential Impacts to Riparian Habitat and Other Sensitive Natural Communities, Including Federally Protected Wetlands

Potential Impacts. Riparian habitat is absent from the site, however, a wetland occurs onsite. The only impacts to this community would be a small triangular wetland near Ranch Road in the southwestern corner of the agricultural field. The project complies with the riparian setback requirements of the City of San Jose and the SCVHP and will result in no significant adverse impacts to riparian habitat. The project may be required to apply for permits from the USACE and RWQCB should the small wetland be impacted. Therefore, development of the site would constitute a significant effect on sensitive and protected habitat communities.

Mitigation. Impacts to areas regulated by the USACE or RWQCB would be considered significant. The following avoidance, minimization measures, and compensation should be followed for impacts to riparian habitat and other sensitive natural communities including jurisdictional waters and wetlands.

Mitigation Measure 3.3.9a. Avoidance- The project has been designed to avoid impacts to riparian and aquatic habitat to the maximum extent practicable. The proposed project will completely impact a small wetland (approximately 0.066 acres).

The project will employ the best management practices incorporated into the SWPP issued for the project. Impacts may require permits from the USACE and RWQCB.

Mitigation Measure 3.3.9b. Minimization-

• Permanent and temporary construction disturbances and other types of project-related disturbances shall be confined to the project site. To ensure disturbances be contained within the predetermined work zone, all project-related vehicle traffic shall be restricted to established roads and construction areas; no work vehicles will be permitted outside the work zone. These areas also should be included in preconstruction surveys and, to the maximum extent possible, should be established in locations disturbed by previous activities to prevent further adverse effects. Sensitive habitat areas shall be delineated with high visibility flagging or fencing to prevent encroachment of construction personnel and



equipment into any sensitive areas during project work activities. At no time shall equipment or personnel be allowed to adversely affect areas outside the project site.

- No canine or feline pets or firearms (except for federal, state, or local law enforcement officers and security personnel) shall be permitted at the project site.
- A litter control program shall be instituted at the entire project site. All construction personnel should ensure that food scraps, paper wrappers, food containers, cans, bottles, and other trash from the project area are deposited in covered or closed trash containers. The trash containers should be removed from the project area at the end of each working day.

Mitigation Measure 3.3.9c. Compensation- Construction is likely to impact some small amount of Waters of the U.S. and state which may be regulated by the USACE and RWQCB. Therefore, the project should replace the lost habitat value resulting from this impact through the creation or restoration at a minimum of a 1:1 ratio for permanent acreage impacts (up to 1 acre created for each acre permanently impacted) as well as reseeding or replanting of vegetation in temporarily disturbed areas according to a site-specific mitigation plan. The final mitigation amounts will be based on actual impacts to be determined during the design phase. If impacts are lessened, then the amount of mitigation should be appropriately reduced.

An onsite habitat mitigation and monitoring plan (HMMP) would need to be developed with the goal of creating, restoring, and/or enhancing riparian habitats with habitat functions and values greater than or equal to those existing in the impact zone. As such, compensation measures should include, but would not be limited to reseeding or replanting of riparian or vegetation (i.e., a combination of trees, shrubs, and herbaceous vegetation) in temporarily and permanently impacted areas and designated habitat restoration areas.

At a minimum, the HMMP should include:

- The location of all enhancement and/or restoration activities;
- Evidence of a suitable water budget to support any created habitats;
- Planting specifications;
- Site maintenance and management requirements;
- Monitoring requirements;
- Final success criteria;
- Adaptive management procedures; and
- A long-term funding mechanism for site management into perpetuity.

The monitoring period should be a minimum of five years to ensure that the success criteria have been achieved.



3.3.9 Degradation of Water Quality in Seasonal Drainages, Stock Ponds and Downstream Waters

Potential Impact. Eventual site development and construction will require grading that leaves the soil of construction zones barren of vegetation and, therefore, vulnerable to sheet, rill, or gully erosion. Eroded soil is generally carried as sediment in surface runoff to be deposited in natural creek beds, canals, and adjacent wetlands. Furthermore, urban runoff is often polluted with grease, oil, pesticide and herbicide residues, heavy metals, etc. These pollutants may eventually be carried to sensitive wetland habitats used by a diversity of native wildlife species. The deposition of pollutants and sediments in sensitive riparian and wetland habitats would be considered a potentially significant adverse environmental impact. The project would comply with the City's grading requirements, City policies 6-29 and 8-14, and Condition 3 of the SCVHP (Appendix B), which are designed to protect water quality.

Mitigation. No mitigation is warranted.

3.3.10 Conflict with Local Policies and Ordinances: City of San Jose Tree Ordinance

Potential Impacts. A tree survey was conducted by Lisa Harris, ISA Certified Arborist #WE-9977A with HMH on September 18, 2015. Twenty-four trees were found to be of ordinance-size onsite. No trees are located within the off-site utility alignment areas. Replacement ratios should be followed as listed in Table 2 below.

Mitigation. Should protected trees be found to occur onsite, compensatory mitigation for loss of trees of the site is described in the Mitigation Measures below. Successful completion of these measures, where they ultimately apply to the project design, will reduce impacts to trees to a less-than-significant level.

Mitigation Measure 3.3.11a. Minimization measures should be implemented to the maximum extent practicable to avoid impacts to trees. While it is currently unknown if trees of the site are planned for retention, if any trees are retained during the construction and operation phases of the project, including trees immediately adjacent to the project boundary but with canopy coverage onto the site, such trees should be protected from impacts by conforming to the following guidelines:



- An arborist should be consulted prior to any ground disturbance activities. The consulting arborist should develop a tree-protection plan outlining specific procedures to ensure that retained trees are protected during the construction phase.
- Prior to any ground disturbance activities, fencing should be installed at the drip-line of all retained trees occurring near the project development envelope. The fencing should remain in place throughout the construction phase of the project. The type of fencing and exact alignment to be utilized would be determined by the consulting arborist.
- Any limb or root pruning to be conducted on retained trees should be approved and supervised by the consulting arborist and should follow best management practices developed by the International Society of Arboriculture.
- Supplemental irrigation to retained trees should be applied as determined by the consulting arborist.
- If any of the retained trees should be damaged during the construction phase, they would need to be evaluated at the earliest possible time by the consulting arborist so that appropriate measures can be taken. Such measures could include monitoring of the tree to ensure the tree is not mortally wounded and/or replacement.

All mitigations for trees are subject to agreement with the Director of the Department of Planning, Building and Code Enforcement.

Mitigation Measure 3.3.11b. Tree removal as a result of the project will require mitigation at replacement-to-removal ratios set-forth by the City of San Jose and described more fully in Table 2. Mitigation trees should be ecologically equivalent species where native trees are impacted (e.g., Mexican elderberry, coast live oak, valley oak, blue oak, toyon, and buckeye). For non-native trees, native replacement trees are recommended, but at a minimum they should be species that are not considered to be invasive by the California Invasive Plant Council (Cal-IPC) and species that are generally drought tolerant and suited to the planting location. Street trees required for project planning do not count toward this tree mitigation. The exact number and species of trees to be utilized for the mitigation will be determined based on consultation with the City Arborist and with the Director of the Department of Planning, Building and Code Enforcement.

If it is determined that the site lacks sufficient areas to accommodate all of the replacement plantings, one or more of the following measures will be implemented:



- Replacement tree plantings may be accommodated at an alternative site(s). An alternative site may include local parks or schools, or an adjacent property where such plantings may be utilized for screening purposes. However, any alternatively proposed site will be pursuant to agreement with the Director of the Department of Planning, Building and Code Enforcement.
- A donation may be made to an appropriate program that focuses on preservation of the City of San Jose's urban forest. Such donation will be equal to the cost of the required replacement trees, including associated installation costs, for off-site tree planting in the local community. A receipt for any such donation will be provided to the City of San Jose Planning Project Manager prior to the removal of the trees.

TABLE 2. TREE REPLACEMENT-TO-REMOVAL RATIOS (CITY OF SAN JOSE 2006).				
nimum Size of lacement Trees				
n container				
x:x = tree replacement to tree loss ratioNote: Trees greater than 18" diameter shall not be removed unless a Tree Removal Permit, or equivalent, has been				
n co xqui				

Mitigation Measure 3.3.11c. Upon completion of avoidance measures (Mitigation Measure 3.3.11a) where trees are planned for retention; completion of any mitigation planting and/or donation in lieu of replacement (Mitigation Measure 3.3.11b), a final report should be prepared and submitted to the Environmental Principal Planner documenting satisfactory completion of required mitigation measures. The report should, at a minimum, state:

- The number of trees that were impacted during buildout (if possible, cross-referenced with the project tree report);
- If tree protection standards achieved the desired result for retained trees;



- If any retained trees were impacted during buildout and whether any long-term monitoring of retained and impacted trees is being conducted by the project arborist;
- How many mitigation trees were planted and where, and/or if and what money was donated and to which City Planning approved organization, including a receipt and contact information.

3.3.12 Conflict with Local Policies and Ordinances: San Jose 2040 General Plan

The Envision San Jose 2040 General Plan includes policies adopted by the City of San Jose that aim to protect biological resources during implementation of new projects. Failure to comply with the General Plan policies (Section 3.2.7) could constitute a significant impact under CEQA. However, the proposed project would ensure compliance with the General Plan which would ensure there is no project conflict with the General Plan.

Mitigation. No mitigation is warranted.

3.3.13 Conflict with Local Policies and Ordinances: Santa Clara Valley Habitat Conservation Plan

Proposed development on the approximately 66.5-acre project site and the associated off-site utility alignments would be considered a covered project under the SCVHP and, as such, would be subject to conditions and fees of the SCVHP. Failure to comply with the SCVHP would constitute a significant impact under CEQA.

Compliance with the SCVHP includes payment of fees according to the "Fee Zone" designation of the property, payment of nitrogen deposition fees related to the number of residential units and/or anticipated car trips (for non-residential projects) resulting from the development, and any surcharge fees that are required based on site-specific impacts to sensitive habitats or sensitive species (e.g. serpentine habitat, western burrowing owl habitat, aquatic habitats, etc.). The onsite portion of the proposed project would be subject to Zone B fees, which are currently \$13,283 per acre (2016 rates), and nitrogen deposition fees associated with the 16 residential units (\$4.47 for each new vehicle trip). The utility alignment is mainly in the Zone A fee zone, which is currently \$19,159 per acre (2016 rates). Specialty fees that may apply include seasonal wetland (\$407,119 per acre). In addition, the site is within the burrowing owl fee zone (\$54,781 per acre). The utility alignments are expected to consist mostly of temporary impacts, for which all the same fees are



applied, but at a fraction of the total cost depending on how long the project expects the temporary impact to last.

In addition to fees, the project would be required to comply with applicable conditions of the SCVHP. Conditions of the SCVHP, summarized above (Section 3.2.8.2), that would apply to the project include Conditions 1, 3, 4, 5, 11, 12, 15, and 17 (Table 3).
TABLE 3.Applicable Santa Clara Valley Habitat Plan (SCVHP) conditions of the
proposed 237 Industrial (Cilker) Project, located in the City of San Jose,
California.

Condition (page references ICF International 2012)	Applicable to project	Comments/Requirements
Condition 1 (page 6-7). Avoid Direct Impacts on Legally Protected Plant and Wildlife Species	Applies	This condition requires actions conducted under the SCVHP to comply with existing laws protecting plant and wildlife species including those species not covered as part of the SCVHP. This requires compliance with Migratory Bird Treaty Act, which prohibits killing or possessing covered migratory birds, their young, nests, feathers, or eggs. Several species of nesting bird that could use the project site are protected by the MBTA. Project mitigations for pre- construction surveys for migratory birds, including for burrowing owls, ensures compliance with this condition.
Condition 2 (page 6-9). Incorporate Urban- Reserve System Interface Design Requirements	N/A	The project is not interfacing with the reserve system.
Condition 3 (page 6-12). Maintain Hydrologic Conditions and Protect Water Quality	Applies	This condition requires all projects to incorporate appropriate measures itemized in the SCVHP's Table 6-2 (refer to ICF International 2012; Appendix B) to minimize indirect and direct effects to covered species and their aquatic habitat. This condition also requires the local jurisdiction (i.e. the City of San Jose) to verify that all appropriate measures from Table 6-2 are implemented. Measures from Table 6-2 should be incorporated into project engineering and SWPPP plans.
Condition 4 (page 6-14). Avoidance and Minimization for In- Stream Projects	Applies	The outfall is the only feature of the project site that this condition applies to, as the outfall is planned to go into Coyote Creek. This condition provides avoidance and minimization measures for projects that may impact streams, as described in the separate H.T. Harvey & Associates biology report for the outfall.
Condition 5 (page 6-18). Avoidance and Minimization Measures for In-Stream Operations and Maintenance	Applies	The outfall is the only feature of the project site that this condition applies to, as the outfall is planned to go into Coyote Creek. This condition provides avoidance and minimization measures for projects that may impact streams as described in the separate H.T. Harvey & Associates biology report for the outfall.
Condition 6 (Page 6-21). Design and Construction Requirements for Covered Transportation Projects	N/A	Project is within the planning limit of urban growth and is not a rural project.
Condition 7 (page 6-28). Rural Development Design and Construction Requirements	N/A	Not a rural development project.
Condition 8 (page 6-35). Implement Avoidance and Minimization Measures for Rural Road Maintenance	N/A	No rural road maintenance.



TABLE 3.Applicable Santa Clara Valley Habitat Plan (SCVHP) conditions of the
proposed 237 Industrial (Cilker) Project, located in the City of San Jose,
California.

Condition (page references ICF International 2012)	Applicable to project	Comments/Requirements
Condition 9 (page 6-37). Prepare and Implement a Recreation Plan	N/A	Project is not part of the Reserve System.
Condition 10 (page 6-42). Fuel Buffer	N/A	A fuel buffer is not required for this project.
Condition 11 (page 6-44). Stream and Riparian Setbacks	Applies	The outfall is the only feature of the project site that will be within the stream setback as described in the separate H.T. Harvey & Associates biology report for the outfall. The remainder of the project will observe appropriate setback buffers.
Condition 12 (page 6-56). Wetland and Pond Avoidance and Minimization	Applies	The outfall is the only feature of the project site that will be within the stream setback as described in the separate H.T. Harvey & Associates biology report for the outfall. The remainder of the project will observe appropriate setback buffers. A small wetland exists in the southwestern corner of the agricultural field of the site, should this wetland be impacted, appropriate permits from the USACE and RWQCB would be applied for. Should the wetland be avoided, avoidance and minimization measures in Condition 12 would be observed.
Condition 13 (page 6-58). Serpentine and Associated Covered Species Avoidance and Minimization	N/A	Serpentine habitat and species are absent.
Condition 14 (page 6-60). Valley Oak and Blue Oak Woodland Avoidance and Minimization	N/A	Valley and blue oak woodlands are absent.
Condition 15 (page 6-62). Western Burrowing Owl	Applies	The entire site is within the burrowing owl fee zone, and therefore, Condition 15 applies to this project, including preconstruction surveys and avoidance measures for owls and nests, and requirements for construction monitoring. Measure 3.3.6 (above) defines the required actions for compliance with this condition.
Condition 16 (page 6-68) Least Bell's Vireo	N/A	Project does not occur within the Pajaro Watershed—the only watershed currently associated with this species in the SCVHP coverage area.
Condition 17 (page 6-69) Tricolored Blackbird	Applies	The project occurs within 250 feet of area mapped in the SCVHP as tricolored blackbird habitat. And the outfall work is within the mapped habitat. Mitigation Measure 3.3.5 (above) defines the required actions for compliance with this condition.
Condition 18 (page 6-71) San Joaquin Kit Fox	N/A	Project outside of modeled habitat for the San Joaquin kit fox.



TABLE 3.Applicable Santa Clara Valley Habitat Plan (SCVHP) conditions of the
proposed 237 Industrial (Cilker) Project, located in the City of San Jose,
California.

L	Camorina.		
	Condition (page references ICF International 2012)	Applicable to project	Comments/Requirements
	Condition 19 (page 6-74). Plant Salvage when Impacts are Unavoidable	N/A	Covered plants are absent.
	Condition 20 (page 6-76). Avoid and Minimize Impacts to Covered Plant Occurrences	N/A	Covered plants are absent.

Implementation of the measures listed and described above, including payment of Land Zone A, Land Zone B, the burrowing owl fee, wetland mitigation fees, and nitrogen deposition fees and compliance with Conditions 1, 3, 4, 5, 11, 12, 15, and 17, the project would be in compliance with the SCVHP. The project would follow the required measures of the SCVHP; therefore, the project would not conflict with this local policy. To ensure compliance, it is recommended that the project proponent thoroughly review the identified sections of the SCVHP, including Table 6-2, which is attached below as Appendix B.

Mitigation. No mitigation is warranted.



4 LITERATURE CITED

- Beier, P 1996 Dispersal of juvenile cougars in fragmented habitat. [Abstract]. Fifth Mountain Lion Workshop. Organized by the California Department of Fish and Game and the Southern California Chapter of the Wildlife Society, San Diego, California, February 27 -March 1, 1996.
- Beier, P. and S. Loe. 1992. A Checklist for Evaluating Impacts to Wildlife Movement Corridors. Wildlife Society Bulletin 20(4):434-440.
- Beier, P. and R.F. Noss. 1998. Do Habitat Corridors Provide Connectivity? Conservation Biology 12(6):1241-1252. December.
- California Department of Fish and Wildlife. 2016. Annual Report on the Status of California State Listed Threatened and Endangered Animals and Plants. The Resources Agency, Sacramento, CA.
- California Department of Fish and Game. 2002. California Fish and Game code. Gould Publications. Binghamton, N.Y.
- California Department of Fish and Wildlife. 2016. California Natural Diversity Database, Rarefind5. The Resources Agency, Sacramento, CA.
- California Native Plant Society (CNPS). 2016. Inventory of Rare and Endangered Plants (online edition, v6-05c). California Native Plant Society. Sacramento, CA. Accessed on Jul. 18:46:10, 2016 from http://www.cnps.org/inventory.
- City of San Jose. 1999. Riparian Corridor Policy Study. Prepared by: The Habitat Restoration Group and Jones and Stokes Associates, Inc. San Jose, California.
- City of San Jose. 2011. Envision San Jose 2040 General Plan. Prepared by the City of San Jose. Approved November 1, 2011. Retrieved from www.sanjoseca.gov/index.aspx?nid=1737 on August 19, 2014.
- Harris, L.D., Gallagher, P.B., 1989. New initiatives for wildlife conservation: the need for movement corridors. In: Mackintosh, G. (Ed.), Preserving Communities and Corridors. Defenders of Wildlife, Washington DC, pp. 11–34.
- Holland, R.F. 1986. Preliminary Description of the Terrestrial Natural Communities of California. Resources Agency, Sacramento, CA. 156 pp.
- ICF International. 2012. Final Santa Clara Valley Habitat Plan.
- Mayer, K. E., and W. F. Laudenslayer, Jr. Ed. 1988. A guide to wildlife habitats of California. California Department of Forestry and Fire Protection. Sacramento, CA. 166 pp.
- Natural Resources Conservation Service. 2016. Santa Clara County, California. USDA. http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx.

- Remy, M. H., T. A. Thomas, J. G. Moose, and W. F. Manley. 1996. Guide to the California Environmental Quality Act.
- USACE. 1987. Corps of Engineers Wetlands Delineation Manual. Department of the Army.
- U.S. Fish and Wildlife Service. 2016. Endangered and threatened wildlife and plants.
- Wetland Training Institute, Inc. 1990. Federal Wetland Regulation Reference Manual. B.N. Goode and R.J. Pierce (eds.) WTI 90-1. 281pp.
- Zeiner, D. C., W. F. Laudenslayer, K. E. Mayer, and M. White. (eds). 1988. California's Wildlife, Volume I, Amphibians and Reptiles. Department of Fish and Game. Sacramento, CA. 272 pp.
- Zeiner, D. C., W. F. Laudenslayer, K. E. Mayer, and M. White. (eds). 1988. California's Wildlife, Volume II, Birds. Department of Fish and Game. Sacramento, CA. 731 pp.
- Zeiner, D. C., W. F. Laudenslayer, K. E. Mayer, and M. White. (eds). 1988. California's Wildlife, Volume III, Mammals. Department of Fish and Game. Sacramento, CA. 407 pp.



APPENDIX A: VASCULAR PLANTS OF THE STUDY AREA

The plant species listed below have been observed on the Cilker Property study area during the surveys conducted by Live Oak Associates on June 20 and October 18, 2016. All plants have been named according to *The Jepson Manual Second Edition* (Baldwin et. al. 2012). The U.S. Fish and Wildlife Service indicator status of each plant has been shown following its common name.

OBL - Obligate FACW - Facultative Wetland FAC - Facultative FACU - Facultative Upland UPL - Upland +/- - Higher/lower end of category NR - No review NA - No agreement NI - No investigation

ADOXACEAE – ELDERBERRY FAMILY Sambucus nigra ssp. Caerulea	Blue Elderberry	FAC
ANACARDIACEAE – SUMAC FAMILY Schinus molle	Peruvian Pepper Tree	UPL
APIACEAE – CARROT FAMILY Conium maculatum	Poison Hemlock	FACW
APOCYNACEAE – DOGBANE FAMILY Nerium oleander	Oleander	UPL
ARECACEAE – PALM FAMILY		
Pheonix sp.	Palm	UPL
Washingtonia robusta	Fan Palm	UPL
ASTERACEAE - SUNFLOWER FAMILY		
Artemisia douglasiana	Mugwort	FACW
Baccharis pilularis	Coyote Brush	UPL
Carduus pycnocephalus	Italian Thistle UPL	
Centaurea calcitrapa	Purple Star-thistle	UPL
Centaurea solstitialis	Yellow Star-thistle	UPL
Chamomilla suaveolens	Pineapple Weed	FACU
Cirsium vulgare	Bull Thistle	FACU
Cirsium sp.	Thistle -	
Conyza canadensis	Canadian Horseweed	FAC
Dittrichia graveolens	Stinkwort	UPL
Helminthotheca echioides	Bristly Ox Tongue	FAC*
Hypochaeris glabra	Smooth Cat's Ear	UPL

Hypochaeris radicata	Rough Cat's Ear	UPL
Lactuca saligna	Willow Lettuce	NI
Lactuca serriola	Prickly Lettuce	FAC
Silybum marianum	Milk Thistle	UPL
Sonchus asper	Prickly Sow-thistle	FAC
Sonchus oleraceus	Common Sow-thistle	NI
Tragopogon sp.	Tragopogon	UPL
BIGNONIACEAE – CATALPA FAMILY		
Jacaranda mimosifolia	Black poul/Jacaranda	UPL
BRASSICACEAE – MUSTARD FAMILY		
Brassica nigra	Black Mustard	UPL
Lepidium latifolium	Broad-leaved Peppergrass	FACW
Lepidium nitidum	Common Peppergrass	FACW
Raphanus sativus	Wild Radish	UPL
CARYOPHYLLACEAE – PINK FAMILY		
Stellaria media	Common Chickweed	FACU
CHENOPODIACEAE – GOOSEFOOT FAM	ILY	
Chenopodium album	Goosefoot	UPL
Salsola tragus	Russian-thistle	FACU
CONVOLVULACEAE – MORNING GLORY	Y FAMILY	
Convolvulus arvensis	Field Bindweed	UPL
Cressa truxillensis	Alkali Weed	FACW
DIPSACACEAE – TEASEL FAMILY		
Dipsacus sp.	Teasel	FAC
FABACEAE – LEGUME FAMILY		
Lotus corniculatus	Bird's Foot Trefoil	FAC
Medicago polymorpha	Bur Clover	FACU-
FAGACEAE – OAK FAMILY		
Quercus agrifolia	Coast Live Oak	UPL
GERANIACEAE – GERANIUM FAMILY		
Erodium botrys	Long-beaked Filaree	UPL
Erodium cicutarium	Redstem Filaree	UPL
JUGLANDACEAE – WALNUT FAMILY		
Juglans hindsii	Northern California black walnut	FAC

MALVACEAE – MALLOW FAMILY		
Malva neglecta	Common Mallow, Cheeses	UPL
Malvella leprosa	Alkali Mallow	FAC
A A A A A A A A A A A A A A A A A A A		
MYRTACEAE – MYRTLE FAMILY		
Callistemon citrinus	Crimson Bottlebrush	UPL
Eucalyntus sp	Gum	UPL
Lucaryprus sp.	Guili	UL
OLEACEAE – OLIVE FAMILY		
Olea europaea	Olive	UPL
Ligustrum sp	Drivet	
Ligustium sp.	Thivet	UIL/IAC
ONAGRACEAE – EVENING PRIMROSE FAN	11LY	
Enilohium brachycarnum	Willow Herb	IIPI
Epilobium ciliatum	California Willowherh	FACW
Epitobium citidium		TAC W
PLANTAGINACEAE – PLANTAGO FAMILY		
Plantago lanceolata	English Plantain	FAC
T uniugo unceoluiu		IAC
POACEAE - GRASS FAMILY		
A grostis viridis	Water Bent Grass	OBI
Ayang sp	Wild Oats	
Avenu sp. Promus diandrus	Pingut	
Bromus dianarus	Kipgui	
Bromus noraeaceus	Solt Chess	FACU
Cynodon dactylon	Bermuda Grass	FACU
Festuca perennis	Perennial Wildrye	FAC
Hordeum murinum ssp. leporinum	Barnyard Barley	NI
Phalaris aquatica	Harding Grass	FAC+
POLYGONACEAE - BUCKWHEAT FAMILY		540
Polygonum aviculare	Yard Knotweed	FAC
Rumex crispus	Curly Dock	FACW
PINACEAE – PINE FAMILY		
Pinus radiata	Monterey Pine	UPL
Pinus sp.	Pine	UPL
PRIMULACEAE – PRIMROSE FAMILY		
Anagallis arvensis	Scarlet Pimpernel	FAC
ROSACEAE – ROSE FAMILY		
Rubus ursinus	California Blackberry	FACW
SALICACEAE – WILLOW FAMILY		
Salix lasiolepis	Arroyo Willow	FACW
SAPINDACEAE – SOAPBERRY		
Acer negundo	Box Elder	FACW
50		



TAXODIACEAE – BALD CYPRESS FAMILY Sequoia sempervirens	Coast Redwood	UPL
ULMACEAE – ELM FAMILY Ulmus Americana	American Elm	
URTICACEAE – NETTLE FAMILY Urtica dioica ssp. holosericea	Stinging Nettle	FACW



APPENDIX B: SCVHP Table 6-2



Table 6-2. Aquatic Avoidance and Minimization Measures

ID	Avoidance and Minimization Measure
	General
1	Minimize the potential impacts on covered species most likely to be affected by changes in hydrology and water quality.
2	Reduce stream pollution by removing pollutants from surface runoff before the polluted surface runoff reaches local streams.
3	Maintain the current hydrograph and, to the extent possible, restore the hydrograph to more closely resemble predevelopment conditions.
4	Reduce the potential for scour at stormwater outlets to streams by controlling the rate of flow into the streams.
5	Invasive plant species removed during maintenance will be handled and disposed of in such a manner as to prevent further spread of the invasive species.
6	Activities in the active (i.e., flowing) channel will be avoided. If activities must be conducted in the active channel, avoidance and minimization measures identified in this table will be applied.
7	Personnel shall prevent the accidental release of chemicals, fuels, lubricants, and non-storm drainage water into channels.
8	Spill prevention kits shall always be in close proximity when using hazardous materials (e.g., crew trucks and other logical locations).
9	Personnel shall implement measures to ensure that hazardous materials are properly handled and the quality of water resources is protected by all reasonable means when removing sediments from the streams.
10	If ground disturbing activities are planned for a stream channel that is known or suspected to contain elevated levels of mercury, the following steps should be taken.
	1. Avoid disturbing soils in streams known or suspected to contain high levels of mercury.
	2. Soils that are likely to be disturbed or excavated shall be tested for mercury. Soils shall be remediated if:
	a. disturbed or excavated soils exposed to flood flows below the 2.33-year channel flow level exceed 1 ppm Hg, or
	b. disturbed or excavated soils above the 2.33-year flow level exceed 20 ppm Hg.
11	Vehicles shall be washed only at approved areas. No washing of vehicles shall occur at job sites.
12	No equipment servicing shall be done in the stream channel or immediate flood plain, unless equipment stationed in these locations cannot be readily relocated (i.e., pumps, generators).
13	Personnel shall use the appropriate equipment for the job that minimizes disturbance to the stream bottom. Appropriately-tired vehicles, either tracked or wheeled, shall be used depending on the situation
14	If high levels of groundwater in a work area are encountered, the water is pumped out of the work site. If necessary to protect water quality, the water shall be directed into specifically constructed infiltration basins, into holding ponds, or onto areas with vegetation to remove sediment prior to the water re-entering a creek.

ID	Avoidance and Minimization Measure
15	If native fish or non-covered, native aquatic vertebrates are present when cofferdams, water bypass structures, and silt barriers are to be installed, a native fish and aquatic vertebrate relocation plan shall be implemented when ecologically appropriate as determined by a qualified biologist to ensure that significant numbers of native fish and aquatic vertebrates are not stranded.
	Prior to the start of work or during the installation of water diversion structures, native aquatic vertebrates shall be captured in the work area and transferred to another reach as determined by a qualified biologist. Timing of work in streams that supports a significant number of amphibians will be delayed until metamorphosis occurs to minimize impacts to the resource. Capture and relocation of aquatic native vertebrates is not required at individual project sites when site conditions preclude reasonably effective operation of capture gear and equipment, or when the safety of biologist conducting the capture may be compromised.
	Relocation of native fish or aquatic vertebrates may not always be ecologically appropriate. Prior to capturing native fish and/or vertebrates, the qualified biologist will use a number of factors, including site conditions, system carrying capacity for potential relocated fish, and flow regimes (e.g., if flows are managed) to determine whether a relocation effort is ecologically appropriate. If so, the following factors will be considered when selecting release site(s): 1. similar water temperature as capture location:
	2. ample habitat availability prior to release of captured individuals;
	3. presence of other same species so that relocation of new individuals will not upset the existing prey/predation function;
	4. carrying capacity of the relocation location;
	5. potential for relocated individual to transport disease; and
	6. low likelihood of fish reentering work site or becoming impinged on exclusion net or screen.
16	Proposals to translocate any covered species will be reviewed and approved by the windine Agencies.
10	When work in a flowing stream is unavoidable, the entire streamflow shall be diverted around the work area by a barrier, except where it has been determined by a qualified biologist that the least environmentally disruptive approach is to work in a flowing stream. Where feasible, water diversion techniques shall allow stream flows to gravity flow around or through the work site.
17	Coffer dams shall be installed both upstream and downstream not more than 100 feet from the extent of the work areas. Coffer dam construction shall be adequate to prevent seepage into or from the work area. Stream flow will be pumped around the work site using pumps and screened intake hoses. All water shall be discharged in a non- erosive manner (e.g., gravel or vegetated bars, on hay bales, on plastic, on concrete, or in storm drains when equipped with filtering devices, etc.).
18	Small in-channel berms that deflect water to one side of the channel during project implementation may be constructed of channel material in channels with low flows.
19	Sumps or basins may also be used to collect water, where appropriate (e.g., in channels with low flows).
20	Diversions shall maintain ambient stream flows below the diversion, and waters discharged below the project site shall not be diminished or degraded by the diversion. All materials placed in the channel to dewater the channel shall be removed when the work is completed. Normal flows shall be restored to the affected stream as soon as is feasible and safe after completion of work at that location.
21	To the extent that stream bed design changes are not part of the project, the stream bed will be returned to as close to pre-project condition as appropriate.
22	To the extent feasible, all temporary diversion structures and the supportive material shall be removed no more than 48 hours after work is completed.
23	Temporary fills, such as for access ramps, diversion structures, or cofferdams, shall be completely removed upon finishing the work.
24	To prevent increases in temperature and decreases in dissolved oxygen (DO), if bypass pipes are used, they shall be properly sized (i.e., larger diameter pipes to better pass the flows). Use of bypass pipes may be avoided by creating a low-flow channel or using other methods to isolate the work area.

ID	Avoidance and Minimization Measure
25	Diversions shall maintain fish passage when the project meets the following conditions: 1) the length of the area dewatered exceeds 500 feet, and/or 2) the length of time the stream is dewatered exceeds two weeks in length. Conditions for fish passage shall be met as long as the diversion 1) maintains contiguous flows through a low flow channel in the channel bed or an artificial open channel, 2) presents no vertical drops exceeding six (6) inches and follows the natural grade of the site, 3) maintains water velocities that shall not exceed eight feet per second (8 ft/sec), and 4) maintains adequate water depths consistent with normal conditions in the project reach. An artificial channel used for fish passage shall be lined with cobble/gravel. A closed conduit pipe shall not be used for fish passage. The inlets of diversions shall be checked daily to prevent accumulation of debris.
26	Any sediment removed from a project site shall be stored and transported in a manner that minimizes water quality impacts.
27	Sediment from the San Francisco Bay Watershed, including that for reuse, will not be removed to areas any farther south than Metcalf Road in south San Jose.
28	Where practical, the removed sediments and gravels will be re-used.
29	Existing native vegetation shall be retained by removing only as much vegetation as necessary to accommodate the trail clearing width. Maintenance roads should be used to avoid effects on riparian corridors.
30	Vegetation control and removal in channels, on stream banks, and along levees and maintenance roads shall be limited to removal necessary for facility inspection purposes, or to meet regulatory requirements or guidelines.
31	When conducting vegetation management, retain as much understory brush and as many trees as feasible, emphasizing shade producing and bank stabilizing vegetation. If riparian vegetation is to be removed with chainsaws, consider using saws currently available that operate with
22	vegetable-based bar oll.
32	In-channel vegetation removal may result in increased local erosion due to increased flow velocity. To minimize the effect, the top of the bank shall be protected by leaving vegetation in place to the maximum extent possible.
33	Regional Board objectives for temperature change in receiving waters (measured 100 feet downstream of discharge point) shall not be exceeded. Receiving water and discharge water may be monitored for temperature changes after a comparison of ambient temperature to pipeline water temperature suggests the potential for change.
	Project Design
34	Use the minimum amount of impermeable surface (building footprint, paved driveway, etc.) as practicable.
35	Use pervious materials, such as gravel or turf pavers, in place of asphalt or concrete to the extent practicable.
36	Use flow control structures such as swales, retention/detention areas, and/or cisterns to maintain the existing (pre- project) peak runoff.
37	
38	Direct downspouts to swales or gardens instead of storm drain inlets.
	Direct downspouts to swales or gardens instead of storm drain inlets. Use flow dissipaters at runoff inlets (e.g., culvert drop-inlets) to reduce the possibility of channel scour at the point of flow entry.
39	Direct downspouts to swales or gardens instead of storm drain inlets. Use flow dissipaters at runoff inlets (e.g., culvert drop-inlets) to reduce the possibility of channel scour at the point of flow entry. Minimize alterations to existing contours and slopes, including grading the minimum area necessary.
39 40	Direct downspouts to swales or gardens instead of storm drain inlets. Use flow dissipaters at runoff inlets (e.g., culvert drop-inlets) to reduce the possibility of channel scour at the point of flow entry. Minimize alterations to existing contours and slopes, including grading the minimum area necessary. Maintain native shrubs, trees and groundcover whenever possible and revegetate disturbed areas with local native or non-invasive plants.
39 40 41	Direct downspouts to swales or gardens instead of storm drain inlets. Use flow dissipaters at runoff inlets (e.g., culvert drop-inlets) to reduce the possibility of channel scour at the point of flow entry. Minimize alterations to existing contours and slopes, including grading the minimum area necessary. Maintain native shrubs, trees and groundcover whenever possible and revegetate disturbed areas with local native or non-invasive plants. Combine flow-control with flood control and/or treatment facilities in the form of detention/retention basins, ponds, and/or constructed wetlands.
39404142	 Direct downspouts to swales or gardens instead of storm drain inlets. Use flow dissipaters at runoff inlets (e.g., culvert drop-inlets) to reduce the possibility of channel scour at the point of flow entry. Minimize alterations to existing contours and slopes, including grading the minimum area necessary. Maintain native shrubs, trees and groundcover whenever possible and revegetate disturbed areas with local native or non-invasive plants. Combine flow-control with flood control and/or treatment facilities in the form of detention/retention basins, ponds, and/or constructed wetlands. Use flow control structures, permeable pavement, cisterns, and other runoff management methods to ensure no change in post-construction peak runoff volume from pre-project conditions for all covered activities with more than 5,000 square feet of impervious surface.
39 40 41 42 43	 Direct downspouts to swales or gardens instead of storm drain inlets. Use flow dissipaters at runoff inlets (e.g., culvert drop-inlets) to reduce the possibility of channel scour at the point of flow entry. Minimize alterations to existing contours and slopes, including grading the minimum area necessary. Maintain native shrubs, trees and groundcover whenever possible and revegetate disturbed areas with local native or non-invasive plants. Combine flow-control with flood control and/or treatment facilities in the form of detention/retention basins, ponds, and/or constructed wetlands. Use flow control structures, permeable pavement, cisterns, and other runoff management methods to ensure no change in post-construction peak runoff volume from pre-project conditions for all covered activities with more than 5,000 square feet of impervious surface. Site characteristics will be evaluated in advance of project design to determine if non-traditional designs, such as bioengineered bank treatments that incorporate live vegetation, can be successfully utilized while meeting the requirements of the project.

ID	Avoidance and Minimization Measure
45	Stream crossings shall incorporate a free-span bridge unless infeasible due to engineering or cost constraints or unsuitable based on minimal size of stream (swale without bed and banks or a very small channel). If a bridge design cannot free-span a stream, bridge piers and footings will be designed to have minimum impact on the stream. A hydraulics analysis must be prepared and reviewed by the jurisdictional partner, including SCVWD as appropriate, demonstrating that piers or footings will not cause significant scour or channel erosion. Whenever possible, the span of bridges will also allow for upland habitat beneath the bridge to provide undercrossing areas for wildlife species that will not enter the creek. Native plantings, natural debris, or scattered rocks will be installed under bridges to provide wildlife cover and encourage the use of crossings.
46	Whenever possible, the span of bridges will also allow for upland habitat beneath the bridge to provide undercrossing areas for wildlife species that will not enter the creek.
47	If a culvert is used, up- and downstream ends of the culvert must be appropriately designed so that the stream cannot flow beneath the culvert or create a plunge pool at the downstream end. Preference will be given to designs that allow a natural bottom (arch culvert) and/or which do not alter natural grade.
48	Trails will be sited and designed with the smallest footprint necessary to cross through the in-stream area. Trails will be aligned perpendicular to the channel and be designed to avoid any potential for future erosion. New trails that follow stream courses will be sited outside the riparian corridor.
49	The project or activity must be designed to avoid the removal of riparian vegetation, if feasible. If the removal of riparian vegetation is necessary, the amount shall be minimized to the amount necessary to accomplish the required activity and comply with public health and safety directives.
50	If levee reconstruction requires the removal of vegetation that provides habitat value to the adjacent stream (e.g., shading, bank stabilization, food sources, etc.), then the project will include replacement of the vegetation/habitat that was removed during reconstruction unless it is determined to be inappropriate to do so by the relevant resource agencies (e.g., CDFG and USFWS).
51	All projects will be conducted in conformance with applicable County and/or city drainage policies.
52	Adhere to the siting criteria described for the borrow site covered activity (see Chapter 2 for details).
53	When possible, maintain a vegetated buffer strip between staging/excavation areas and receiving waters.
54	When not within the construction footprint, deep pools within stream reaches shall be maintained as refuge for fish and wildlife by constructing temporary fencing and/or barrier so as to avoid pool destruction and prevent access from the project site.
55	For stream maintenance projects that result in alteration of the stream bed during project implementation, its low flow channel shall be returned to its approximate prior location with appropriate depth for fish passage without creating a potential future bank erosion problem.
56	Increased water velocity at bank protection sites may increase erosion downstream. Therefore, bank stabilization site design shall consider hydraulic effects immediately upstream and downstream of the work area. Bank stabilization projects will be designed and implemented to provide similar roughness and characteristics that may affect flows as the surrounding areas just upstream and downstream of the project site.
57	When parallel to a stream or riparian zone and not located on top of a levee, new trails shall be located behind the top of bank or at the outside edge of the riparian zone except where topographic, resource management, or other constraints or management objectives make this not feasible or undesirable.
58	Existing access routes and levee roads shall be used if available to minimize impacts of new construction in special status species habitats and riparian zones.
59	Trails in areas of moderate or difficult terrain and adjacent to a riparian zone shall be composed of natural materials or shall be designed (e.g., a bridge or boardwalk) to minimize disturbance and need for drainage structures, and to protect water quality.
60	Trail crossings of freshwater stream zones and drainages shall be designed to minimize disturbance, through the use of bridges or culverts, whichever is least environmentally damaging. Structures over water courses shall be carefully placed to minimize disturbance. Erosion control measures shall be taken to prevent erosion at the outfalls of drainage structures.

ID	Avoidance and Minimization Measure
	Construction
61	Minimize ground disturbance to the smallest area feasible.
62	Use existing roads for access and disturbed area for staging as site constraints allow. Off-road travel will avoid sensitive communities such as wetlands and known occurrences of covered plants.
63	Prepare and implement sediment erosion control plans.
64	No winter grading unless approved by City Engineer and specific erosion control measures are incorporated.
65	Control exposed soil by stabilizing slopes (e.g., with erosion control blankets) and protecting channels (e.g., using silt fences or straw wattles).
66	Control sediment runoff using sandbag barriers or straw wattles.
67	No stockpiling or placement of erodible materials in waterways or along areas of natural stormwater flow where materials could be washed into waterways.
68	Stabilize stockpiled soil with geotextile or plastic covers.
69	Maintain construction activities within a defined project area to reduce the amount of disturbed area.
70	Only clear/prepare land which will be actively under construction in the near term.
71	Preserve existing vegetation to the extent possible.
72	Equipment storage, fueling and staging areas will be sited on disturbed areas or non-sensitive habitat outside of a stream channel.
73	Avoid wet season construction.
74	Stabilize site ingress/egress locations.
75	Dispose of all construction waste in designated areas and prevent stormwater from flowing onto or off of these areas.
76	Prevent spills and clean up spilled materials.
77	Sweep nearby streets at least once a day.
78	In-stream projects occurring while the stream is flowing must use appropriate measures to protect water quality, native fish and covered wildlife species at the project site and downstream of the project site.
79	If mercury contamination may be present, the channel must be dewatered prior to commencement of the activity.
80	All personnel working within or adjacent to the stream setback (i.e., those people operating ground-disturbing equipment) will be trained by a qualified biologist in these avoidance and minimization measures and the permit obligations of project proponents working under this Plan.
81	Temporary disturbance or removal of aquatic and riparian vegetation will not exceed the minimum necessary to complete the work.
82	Channel bed temporarily disturbed during construction activities will be returned to pre-project or ecologically improved conditions at the end of construction.
83	Sediments will be stored and transported in a manner that minimizes water quality impacts. If soil is stockpiled, no runoff will be allowed to flow back to the channel.
84	Appropriate erosion control measures (e.g., fiber rolls, filter fences, vegetative buffer strips) will be used on site to reduce siltation and runoff of contaminants into wetlands, ponds, streams, or riparian vegetation. Fiber rolls used for erosion control will be certified as free of noxious weed seed. Filter fences and mesh will be of material that will not entrap reptiles and amphibians. Erosion control measures will be placed between the outer edge of the buffer and the project site.
85	Seed mixtures applied for erosion control will not contain invasive nonnative species and will be composed of native species or sterile nonnative species. If sterile nonnative species are used for temporary erosion control, native seed mixtures must be used in subsequent treatments to provide long-term erosion control and slow colonization by invasive nonnatives.
86	Topsoil removed during soil excavation will be preserved and used as topsoil during revegetation when it is necessary to conserve the natural seed bank and aid in revegetation of the site.
87	Vehicles operated within and adjacent to streams will be checked and maintained daily to prevent leaks of materials that, if introduced to the water, could be deleterious to aquatic life.

ID	Avoidance and Minimization Measure
88	Vehicles and equipment will be parked on pavement, existing roads, and previously disturbed areas.
89	The potential for traffic impacts on terrestrial animal species will be minimized by adopting traffic speed limits.
90	All trash will be removed from the site daily to avoid attracting potential predators to the site. Personnel will clean the work site before leaving each day by removing all litter and construction-related materials.
91	To prevent the spread of exotic species and reduce the loss of native species, aquatic species will be netted at the drain outlet when draining reservoirs or ponds to surface waters. Captured native fish, native amphibians, and western pond turtles will be relocated if ecologically appropriate. Exotic species will be dispatched.
92	To minimize the spread of pathogens all staff working in aquatic systems (i.e., streams, ponds, and wetlands)— including site monitors, construction crews, and surveyors—will adhere to the most current guidance for equipment decontamination provided by the Wildlife Agencies at the time of activity implementation. Guidance may require that all materials that come in contact with water or potentially contaminated sediments, including boot and tire treads, be cleaned of all organic matter and scrubbed with an appropriate cleansing solution, and that disposable gloves be worn and changed between handling equipment or animals. Care should be taken so that all traces of the disinfectant are removed before entering the next aquatic habitat.
93	When accessing upland areas adjacent to riparian areas or streams, access routes on slopes of greater than 20% should generally be avoided. Subsequent to access, any sloped area should be examined for evidence of instability and either revegetated or filled as necessary to prevent future landslide or erosion.
94	Personnel shall use existing access ramps and roads if available. If temporary access points are necessary, they shall be constructed in a manner that minimizes impacts to streams.
95	To prevent inadvertent entrapment of animals during excavation, all excavated, steep-walled holes or trenches more than 2-feet deep will be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks.
96	Isolate the construction area from flowing water until project materials are installed and erosion protection is in place.
97	Erosion control measures shall be in place at all times during construction. Do not start construction until all temporary control devices (straw bales, silt fences, etc.) are in place downstream of project site.
98	When needed, utilize in-stream grade control structures to control channel scour, sediment routing, and headwall cutting.
	Post-Construction
99	Conduct street cleaning on a regular basis
100	Potential contaminating materials must be stored in covered storage areas or secondary containment that is impervious to leaks and spills
101	Runoff pathways shall be free of trash containers or trash storage areas. Trash storage areas shall be screened or walled
102	Immediately after project completion and before close of seasonal work window, stabilize all exposed soil with mulch, seeding, and/or placement of erosion control blankets .
103	All disturbed soils will be revegetated with native plants and/or grasses or sterile nonnative species suitable for the altered soil conditions upon completion of construction. Local watershed native plants will be used if available. If sterile nonnative species are used for temporary erosion control, native seed mixtures must be used in subsequent treatments to provide long-term erosion control and slow colonization by invasive nonnatives. All disturbed areas that have been compacted shall be de-compacted prior to planting or seeding. Cut-and-fill slopes will be planted with local native or non-invasive plants suitable for the altered soil conditions.
104	Measures will be utilized on site to prevent erosion along streams (e.g., from road cuts or other grading), including in streams that cross or are adjacent to the project proponent's property. Erosion control measures will utilize natural methods such as erosion control mats or fabric, contour wattling, brush mattresses, or brush layers. For more approaches and detail, please see the <i>Bank Protection/ Erosion Repair Design Guide</i> in the Santa Clara Valley Water Resources Protection Collaborative's <i>User Manual: Guidelines & Standards for Land Use Near Streams</i> (Santa Clara Valley Water Resources Protection Collaborative 2006).

ID	Avoidance and Minimization Measure
105	Vegetation and debris must be managed in and near culverts and under and near bridges to ensure that entryways remain open and visible to wildlife and that passage through the culvert or bridge remains clear.
106	Prior to undertaking stream maintenance activities, reach conditions will be assessed to identify tasks that are necessary to maintain the channel for the purpose for which it was designed and/or intended (e.g., flood control, groundwater recharge). Only in-stream work that is necessary to maintain the channel will be conducted.
107	On streams managed for flood control purposes, when stream reaches require extensive vegetation thinning or removal (e.g., when the channel has been fully occluded by willows or other vegetation), removal will be phased so that some riparian land cover remains and provides some habitat value. In addition, vegetation removal will be targeted and focused on removing the least amount of riparian vegetation as possible while still meeting the desired flood control needs. For example, vegetation removal should be focused on shrubby undergrowth at the toe-of-slope that is most likely to increase roughness and create a flooding hazard. Vegetation on the upper banks, particularly mature tree canopy, should be maintained to the extent possible to provide habitat for birds and small mammals and shading for the active channel.
108	When reaches require sediment removal, approaches will be considered that may reduce the impacts of the activity. Examples of potential approaches include phasing of removal activities or only removing sediment along one half of the channel bed, allowing the other half to remain relatively undisturbed.
109	In streams not managed for flood control purposes, woody material (including live leaning trees, dead trees, tree trunks, large limbs, and stumps) will be retained unless it is threatening a structure, impedes reasonable access, or is causing bank failure and sediment loading to the stream.
110	If debris blockages threaten bank stability and may increase sedimentation of downstream reaches, debris will be removed. When clearing natural debris blockages (e.g., branches, fallen trees, soil from landslides) from the channel, only remove the minimum amount of debris necessary to maintain flow conveyance (i.e., prevent significant backwatering or pooling). Non-natural debris (e.g., trash, shopping carts, etc.) will be fully removed from the channel.
111	If bank failure occurs due to debris blockages, bank repairs will only use compacted soil, and will be re-seeded with native grasses or sterile nonnative hybrids and stabilized with natural erosion control fabric. If sterile nonnative species are used for temporary erosion control, native seed mixtures must be used in subsequent treatments to provide long-term erosion control and slow colonization by invasive nonnatives. If compacted soil is not sufficient to stabilize the slope, bioengineering techniques must be used. No hardscape (e.g., concrete or any sort of bare riprap) or rock gabions may be utilized in streams not managed for flood control except in cases where infrastructure or human safety is threatened (e.g., undercutting of existing roads). Rock riprap may only be used to stabilize channels experiencing extreme erosion, and boulders must be backfilled with soil and planted with willows or other native riparian species suitable for planning in such a manner. If available, local native species will be utilized as appropriate.
112	Pumps and generators shall be maintained and operated in a manner that minimizes impacts to water quality and aquatic species.
113	The channel bottom shall be re-graded at the end of the work project to as close to original conditions as possible.
114	Erosion control methods shall be used as appropriate during all phases of routine maintenance projects to control sediment and minimize water quality impacts.
115	All construction pipes, culverts, or similar structures with a diameter of 4 inches or greater that are stored at a construction site for one or more overnight periods will be thoroughly inspected for wildlife by properly trained construction personnel before the pipe is subsequently buried, capped, or otherwise used or moved in anyway.

Appendix D

Potential Outfall Project Biological Resources Report



Cilker Property Storm Drain Outfall Project Biological Resources Report

Project # 3855-01

Prepared for:

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August 11, 2016



Executive Summary

The proposed Cilker Property storm drain outfall project would construct a new 48-inch storm drain outfall into Coyote Creek. The proposed outfall would result in permanent impacts on California annual grassland, mixed riparian forest and woodland, and seasonal wetlands. Permanent impacts would occur in a small patch (<0.01-acre) of California annual grassland and a small (0.01-acre) seasonal wetland habitat as a result of project implementation as well as 0.11 acres of mixed riparian forest canopy on site and 0.05 acres of mixed riparian forest canopy extending off site. The project avoids direct impacts to Coyote Creek because the outfall is located outside the stream's low flow channel. Construction access, project trenching, and pipe installation would temporarily impact California annual grassland and urban/suburban habitats.

The project could result in potentially significant impacts to jurisdictional waters and water quality, riparian forest habitat from tree removal, invasive weeds, and the burrowing owl (*Athene cunicularia*). With implementation of mitigation measures identified herein, impacts on these biological resources will be reduced to less-than-significant levels.

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This report describes the biological resources present in the area of the proposed Cilker Property storm drain outfall project (project), the potential biological impacts of the proposed project, and measures necessary to reduce these impacts to less-than-significant levels under the California Environmental Quality Act (CEQA). This assessment is based upon the project plans provided to H. T. Harvey & Associates by PAC LAND in late June, 2016.

1.1 Project Location

The project site is 0.43 acre (ac) in size and is located on the north side of Highway 237 at the east side of the Alviso area in San Jose, California (Figure 1). It is located in the *Milpitas, California* 7.5-minute U.S. Geological Survey (USGS) quadrangle at an elevation of approximately 10 to 30 feet (Google Inc. 2016), with the lowest elevations within the bed of Coyote Creek and the highest elevations at the top of the western levee containing the creek. The site is located on parcels APN 015-31-054 and 015-31-068. The entire project site is located within the Santa Clara Valley Habitat Plan (VHP) permit area.

1.2 Proposed Project

The proposed project site is currently largely undeveloped. The purpose of the proposed Cilker Property storm drain outfall project is to construct a new storm drain outfall into Coyote Creek to convey storm water runoff from the proposed Cilker Property development to the west. The project alignment runs in a southwest to northeast orientation. The project site crosses an existing levee along the western side of Coyote Creek. It is adjacent to existing drainage pipe infrastructure, and the project would construct a new drainage pipe directly north of the existing storm water main. The project includes the construction of a storm drain outfall structure. All work, temporary and permanent, is to be completely confined to the limit of environmentally sensitive area (ESA) fencing along the project site borders as shown on project plans. All construction access will be from the existing gravel maintenance roads. There will be no dewatering of the low-flow channel to install the outfall or armoring. Project work would involve the following steps: (1) fencing the site perimeter, (2) preparing the site by removing trees in the trenching area, (3) excavating a sending pit and receiving pit, (4) jacking and boring for 60-inch pipe installation under the existing levee, (5) excavating an open trench east of the levee, (6) installing the 48-inch outfall pipe in the trench, (7) installing rock slope protection at the outfall, and (8) installing erosion control measures for the disturbed areas.

Access into the ESA-fenced project site would be provided by entries at the Santa Clara Valley Water District (SCVWD) lower levee maintenance road. The entrances would be gated to allow for construction access. Equipment would enter the project site from the existing gravel road that crosses through the site on the eastern side of the levee or through the main Cilker Property site located directly west of the project site. Trees in the trenching area would be removed to prepare for outfall construction. Hand crews with chain saws will enter



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Ecological Consultants

Figure 1. Vicinity Map Cilker Property Biological Resources Report (3855-01) August 2016

the work area to cut trees that would be directly impacted by project trenching. The trees would then be dragged upslope to be cut up and off hauled using a front loader with a log attachment or the trees will be cut into sections, and the branches trimmed and ground into a truck using a wood chipper.

Outfall pipe installation would be conducted via jack and bore methods under the levee, to preserve levee integrity and reduce above-ground impacts. The pipe would be installed via trench excavation east of the levee up to Coyote Creek. For the jack and bore pipe installation a backhoe would enter the work area from along the top of SCVWD road and would excavate two pits, the receiving pit on the eastern side of the levee and the sending pit west of the levee. Access to the sending pit would be from the main Cilker Property site to avoid heavy machinery crossing the levee. The side cast earthen material would be placed to the side of the pits temporarily. In accordance with standard National Pollutant Discharge Elimination System (NPDES) permit construction practices the side cast material will be encircled with fiber rolls and a staked silt fence to prevent stream sedimentation. All soil material removed during the jack and bore process would be stockpiled to the side of the sending pit. A boring machine would be set in the sending pit, the auger would be attached, and the machine would bore the hole while a 60-inch diameter culvert pipe would be simultaneously put into place and jacked forward. This process would continue until the pipe is bored from the sending pit to the receiving pit. The 48-inch storm drain outfall pipe would then be fed through the bored culvert using spacers, and the annulus grouted, using a front loader. The material would be delivered to the pit via a Gradall forklift, or similar. A manhole would be constructed in the sending pit to receive the force main from the main Cilker site on-site storm drain treatment systems and connect to the outfall pipe. The sending and receiving pits would then be backfilled with gravel first and then soil. Any extra soil removed from the jack and bore pits and culvert excavation that would not be used in backfilling the pit will be put into standard one-trailer dump trucks positioned on the existing SCVWD access road. The soil would be loaded into the dump truck by a front loader tractor.

The next phase of the work would involve excavating the trench extending from the receiving pit and proceeding down slope to the proposed outfall and rock slope area. During construction the project site would be physically separated from Coyote Creek by using fiber rolls, staking, and silt fencing to prevent water quality impacts as required by the NPDES Construction General Permit. The 6-foot wide trench would be excavated with a long reach backhoe. Trenching soil would be side cast in the project site and a portion would be saved to backfill the trench. Extra material would be off-hauled. The 48-inch diameter pipe would be put in place by hoisting with the front of the front-loader or using a small crane. The outfall rock slope area would be over excavated inside the limits of the fiber rolls and silt fencing. That soil material would be stockpiled and/or off-hauled. The rock slope materials would be put into place using a combination of a front loader and hand crews.

Soil removed from the pits and trenching would be put back into place and lightly compacted so that it would match the pre-construction topography. The disturbed area would be restored by seeding the area with an erosion control mixture that is suitable to the California Department of Fish and Wildlife (CDFW) and the Regional Water Quality Control Board (RWQCB) and would have a mixture of California native grasses and forbs. This will minimize the potential for the germination of the majority of seeds from non-native, invasive

plant species. The seed mixture would be applied and an erosion control blanket would be placed and staked with wooden stakes that are 1 by 2-inches around and 12-inches long. No netting would be used in the erosion control area. Following construction the ESA perimeter fence, silt fences and other temporary protective materials would then be removed. During construction of the proposed project, all straw materials used for erosion control on site will be weed-free rice (or similar material acceptable to the City) straw, and all gravel and fill material will be certified weed free to the satisfaction of the City, and any deviation from this will be approved by the City.

During construction of the proposed project, vehicles and all equipment will be washed (including wheels, undercarriages, and bumpers) before and after entering the proposed project site. Vehicles will be cleaned at existing originating and receiving construction equipment yards or legally operating car washes.

The project is located in the VHP coverage area (ICF International 2012) and is subject to its conditions. The proposed project is partially inside the planning limits of urban growth at the SCVWD levee in the western portion of the project site. Work in the western portion of the site is a "covered project" under the VHP (ICF International 2012) for storm water management facilities, including outfall improvements. The eastern portion of the project site, inboard of the levee, is outside the planning limits of urban growth and is in the private development covered area of the VHP. Due to this VHP coverage, the proposed project is required by the City of San Jose to pay VHP fees for land impacts in accordance with the types and acreage of habitat impacted, and to implement conservation measures specified by VHP conditions. This biological resources report, therefore, incorporates VHP avoidance, minimization, and compensatory mitigation measures as appropriate, in the context of measures that we believe to be appropriate to reduce impacts to less-than-significant levels under CEQA.

Biological resources on the project site are regulated by a number of federal, state, and local laws and ordinances, as described below.

2.1 Federal

2.1.1 Clean Water Act

Areas meeting the regulatory definition of "Waters of the U.S." are subject to the jurisdiction of the U.S. Army Corps of Engineers (USACE) under provisions of Section 404 of the 1972 Clean Water Act (CWA). These waters may include all waters used, or potentially used, for interstate commerce, including all waters subject to the ebb and flow of the tide, all interstate waters, all other waters (intrastate lakes, rivers, streams, mudflats, sandflats, playa lakes, natural ponds, etc.), territorial seas, and wetlands adjacent to Waters of the U.S. (33 Code of Federal Regulations [CFR], Part 328). Wetlands on non-agricultural lands are identified using the Corps of Engineers Wetlands Delineation Manual (1987) using an approach that relies on identification of three parameters: hydrophytic vegetation, hydric soils, and wetland hydrology indicators. Areas typically not considered to be jurisdictional waters include nontidal drainage and irrigation ditches excavated in uplands, artificially irrigated areas, artificial lakes or ponds used for irrigation or stock watering, small artificial water bodies such as swimming pools, and water-filled depressions (33 CFR, Part 328).

Construction activities within jurisdictional waters are regulated by the USACE. The placement of fill into such waters must comply with permit requirements of the USACE. No USACE permit will be effective in the absence of Section 401 Water Quality Certification. The State Water Resources Control Board (SWRCB) is the state agency (together with the Regional Water Quality Control Boards [RWQCBs]) charged with implementing water quality certification in California.

<u>Project Applicability</u>: The project site does support an area that would likely be considered jurisdictional waters of the U.S. as seasonal wetlands. Although the channel of the Coyote Creek is adjacent to the northeastern edge of the project site, the lateral limits of the channel do not overlap with the project site. Installation of rock slope protection and trenching to place a storm drain pipe would occur in seasonal wetlands habitat. Because this work is proposed in Waters of the U.S., a permit from the USACE would be required.

2.1.2 Federal Endangered Species Act

The Federal Endangered Species Act (FESA) protects federally listed wildlife species from harm or "take", which is broadly defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct." Take can also include habitat modification or degradation that directly results in death or injury of a listed wildlife species. An activity can be defined as "take" even if it is unintentional or

accidental. Listed plant species are provided less protection than listed wildlife species. Listed plant species are legally protected from take under the FESA only if they occur on federal lands.

The U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service have jurisdiction over federally listed, threatened, and endangered species under the FESA. The USFWS also maintains lists of proposed and candidate species; on these lists are not legally protected under the FESA, but may become listed in the near future and are often included in their review of a project.

Project Applicability: No federally listed plant or animal species occur on the project site.

2.1.3 Federal Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA), 16 U.S.C. §703, prohibits killing, possessing, or trading of migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. The MBTA protects whole birds, parts of birds, and bird eggs and nests; and prohibits the possession of all nests of protected bird species whether they are active or inactive. An active nest is defined as having eggs or young, as described by the Department of the Interior in its April 16, 2003 Migratory Bird Permit Memorandum. Nest starts (nests that are under construction and do not yet contain eggs) are not protected from destruction.

Project Applicability: All native bird species that occur on the project site are protected under the MBTA.

2.2 State

2.2.1 Porter-Cologne Water Quality Control Act

The SWRCB works in coordination with the nine RWQCBs to preserve, protect, enhance, and restore water quality. Each RWQCB makes decisions related to water quality for its region, and may approve, with or without conditions, or deny projects that could affect Waters of the State. Their authority comes from the CWA and the State's Porter-Cologne Water Quality Control Act (Porter-Cologne). Porter-Cologne broadly defines Waters of the State as "any surface water or groundwater, including saline waters, within the boundaries of the state." Because Porter-Cologne applies to any water, whereas the CWA applies only to certain waters, California's jurisdictional reach overlaps and may exceed the boundaries of Waters of the U.S. For example, Water Quality Order No. 2004-0004-DWQ states that "shallow" waters of the State include headwaters, wetlands, and riparian areas. Moreover, the San Francisco Bay Region RWQCB's Assistant Executive Director, has stated that, in practice, the RWQCBs claim jurisdiction over riparian areas. Where riparian habitat is not present, such as may be the case at headwaters, jurisdiction is taken to the top of bank.

Pursuant to the CWA, projects that are regulated by the USACE must also obtain a Section 401 Water Quality Certification permit from the RWQCB. This certification ensures that the proposed project will uphold state water quality standards. Because California's jurisdiction to regulate its water resources is much broader than that of the federal government, proposed impacts on Waters of the State require Water Quality Certification even if the area occurs outside of USACE jurisdiction. Moreover, the RWQCB may impose mitigation requirements even if the USACE does not. Under the Porter-Cologne, the SWRCB and the nine regional boards also have the responsibility of granting CWA National Pollutant Discharge Elimination System (NPDES) permits and Waste Discharge Requirements for certain point-source and non-point discharges to waters. These regulations limit impacts on aquatic and riparian habitats from a variety of urban sources.

<u>Project Applicability</u>: Waters of the State include Waters of the U.S. as described above, which were determined to be present in the project site as seasonal wetlands. In addition, riparian areas are claimed as Waters of the State, and thus the top of bank at the project site is equivalent to the inboard side of the levee top. All areas east toward Coyote Creek are considered Waters of the State jurisdiction inside top of bank. The riparian tree canopy is contained entirely below the top of the levee, therefore Waters of the State jurisdiction does not extend beyond the top of bank.

2.2.2 California Endangered Species Act

The California Endangered Species Act (CESA) (California Fish and Game Code, Chapter 1.5, §§2050-2116) prohibits the take of any plant or animal listed or proposed for listing as rare (plants only), threatened, or endangered. In accordance with the CESA, the CDFW has jurisdiction over state-listed species (Fish and Game Code 2070). The CDFW regulates activities that may result in "take" of individuals (i.e., "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill"). Habitat degradation or modification is not expressly included in the definition of "take" under the California Fish and Game Code. The CDFW, however, has interpreted "take" to include the "killing of a member of a species which is the proximate result of habitat modification."

Project Applicability: No state listed plant or animal species occur on the project site.

2.2.3 California Environmental Quality Act

The CEQA is a state law that requires state and local agencies to document and consider the environmental implications of their actions and to refrain from approving projects with significant environmental effects if there are feasible alternatives or mitigation measures that can substantially lessen or avoid those effects. The CEQA requires the full disclosure of the environmental effects of agency actions, such as approval of a general plan update or the projects covered by that plan, on resources such as air quality, water quality, cultural resources, and biological resources. The State Resources Agency promulgated guidelines for implementing CEQA known as the State CEQA Guidelines.

Section 15380(b) of the State CEQA Guidelines provides that a species not listed on the federal or state lists of protected species may be considered rare if the species can be shown to meet certain specified criteria. These criteria have been modeled after the definitions in the FESA and the CESA and the section of the California Fish and Game Code dealing with rare or endangered plants and animals. This section was included in the guidelines primarily to deal with situations in which a public agency is reviewing a project that may have a

significant effect on a species that has not yet been listed by either the USFWS or CDFW or species that are locally or regionally rare.

The CDFW has produced three lists (amphibians and reptiles, birds, and mammals) of "species of special concern" that serve as "watch lists". Species on these lists are of limited distribution or the extent of their habitats has been reduced substantially, such that threat to their populations may be imminent. Thus, their populations should be monitored. They may receive special attention during environmental review as potential rare species, but do not have specific statutory protection. All potentially rare or sensitive species, or habitats capable of supporting rare species, are considered for environmental review per the CEQA §15380(b).

The CNPS, a non-governmental conservation organization, has developed rankings for plant species of concern in California in the CNPS Inventory of Rare and Endangered Plants. Lichens, vascular, and non-vascular plants included in these rankings are defined as follows:

- Rank 1A Plants considered extinct.
- Rank 1B Plants rare, threatened, or endangered in California and elsewhere.
- Rank 2A Plants considered extinct in California but more common elsewhere.
- Rank 2B Plants rare, threatened, or endangered in California but more common elsewhere.
- Rank 3 Plants about which more information is needed review list.
- Rank 4 Plants of limited distribution-watch list.

These CNPS rankings are further described by the following threat code extensions:

- .1-seriously endangered in California;
- .2-fairly endangered in California;
- .3-not very endangered in California.

Although the CNPS is not a regulatory agency and plants on these lists have no formal regulatory protection, plants appearing on List 1B or List 2 are, in general, considered to meet CEQA's §15380 criteria, and adverse effects to these species may be considered significant. Impacts on plants that are listed by the CNPS on List 3 or 4 are also considered during CEQA review, although because these species are typically not as rare as those on List 1B or List 2, impacts on them are less frequently considered significant.

Compliance with CEQA Guidelines §15065(a) requires consideration of natural communities of special concern, in addition to plant and wildlife species. Vegetation types of "special concern" are tracked in Rarefind (CNDDB 2016). Further, the CDFW ranks sensitive vegetation alliances based on their global (G) and state (S) rankings analogous to those provided in the CNDDB and using NatureServe's (2016) standard heritage

program methodology. Global rankings (G1–G5) of natural communities reflect the overall condition (rarity and endangerment) of a habitat throughout its range, whereas S rankings are a reflection of the condition of a habitat within California. If an alliance is marked as a G1–G3, all of the associations within it would also be of high priority. The CDFW provides the Vegetation Classification and Mapping Program's currently accepted list of vegetation alliances and associations (California Department of Fish and Game [CDFG] 2010).

<u>Project Applicability</u>: All potential impacts on biological resources will be considered during CEQA review of the project in the context of this Biological Resources Report. Project impacts are discussed below in Section 5, Biotic Impacts and Mitigation.

2.2.4 California Fish and Game Code

Ephemeral and intermittent streams, rivers, creeks, dry washes, sloughs, blue line streams on USGS maps, and watercourses with subsurface flows fall under CDFW jurisdiction. Canals, aqueducts, irrigation ditches, and other means of water conveyance may also be considered streams if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife. A *stream* is defined in Title 14, California Code of Regulations §1.72, as "a body of water that follows at least periodically or intermittently through a bed or channel having banks and that supports fish and other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." Using this definition, CDFW extends its jurisdiction to encompass riparian habitats that function as a part of a watercourse. California Fish and Game Code §2786 defines *riparian habitat* as "lands which contain habitat which grows close to and which depends upon soil moisture from a nearby freshwater source." The lateral extent of a stream and associated riparian habitat that would fall under the jurisdiction of CDFW can be measured in several ways, depending on the particular situation and the type of fish or wildlife at risk. At minimum, CDFW would claim jurisdiction over a stream's bed and bank. In areas that lack a vegetated riparian corridor, CDFW jurisdiction would be the same as USACE jurisdiction. Where riparian habitat is present, the outer edge of riparian vegetation is generally used as the line of demarcation between riparian and upland habitats.

Pursuant to California Fish and Game Code §1603, CDFW regulates any project proposed by any person that will "substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the department, or use any material from the streambeds." California Fish and Game Code §1602 requires an entity to notify CDFW of any proposed activity that may modify a river, stream, or lake. If CDFW determines that proposed activities may substantially adversely affect fish and wildlife resources, a Lake and Streambed Alteration Agreement (LSAA) must be prepared. The LSAA sets reasonable conditions necessary to protect fish and wildlife, and must comply with CEQA. The applicant may then proceed with the activity in accordance with the final LSAA.

Certain sections of the California Fish and Game Code describe regulations pertaining to protection of certain wildlife species. For example, Code §2000 prohibits take of any bird, mammal, fish, reptile, or amphibian except as provided by other sections of the code.

The California Fish and Game Code §§3503, 3513, and 3800 (and other sections and subsections) protect native birds, including their nests and eggs, from all forms of take. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "take" by the CDFW. Raptors (i.e., eagles, hawks, and owls) and their nests are specifically protected in California under Code §3503.5. Section 3503.5 states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto."

Bats and other non-game mammals are protected by California Fish and Game Code §4150, which states that all non-game mammals or parts thereof may not be taken or possessed except as provided otherwise in the code or in accordance with regulations adopted by the commission. Activities resulting in mortality of non-game mammals (e.g., destruction of an occupied nonbreeding bat roost, resulting in the death of bats), or disturbance that causes the loss of a maternity colony of bats (resulting in the death of young), may be considered "take" by the CDFW.

<u>Project Applicability</u>: The project site has seasonal wetlands in the vicinity of Coyote Creek and the top of bank is located at the inboard side of the levee. The area of CDFW jurisdiction on the project site corresponds to all habitat types that occur from top of bank and inboard toward the stream. Therefore, an LSAA will be required for proposed project activities up to the top of bank. Most native bird, mammal, and other wildlife species that occur on the project site and in the immediate vicinity are protected by the California Fish and Game Code.

2.3 Local

2.3.1 City of San José Tree Ordinance

According to the City of San José's Municipal Code, Chapter 13.28.220, no person is allowed to unlawfully prune or remove street trees or heritage trees without obtaining a permit. Any tree planted on a street is protected by this ordinance. In addition, any tree which, because of factors including but not limited to its history, girth, height, species, or unique quality, has been found by the City Council to have special significance to the community may be designated as a heritage tree (also see Chapter 13.28.220 of the Municipal Code). Property owners can contact the City Arborist's Office to nominate a tree for heritage status, and the arborist has the authority to accept or deny requests to add trees to the Heritage Tree List. The list is available on the City of San José's official website (http://www.sanjoseca.gov/index.aspx?NID=1913) and includes the unique identification number, species, girth, and location for each tree.

Permits to prune or remove street trees are issued by the City Department of Transportation, whereas permits to impact heritage trees can be obtained from the Department of Planning, Building, and Code Enforcement. Both types of permits will define protection measures that will be required during development and construction activities to limit adverse environmental effects. For instance, heritage tree work must be performed by a certified arborist and must remain in compliance with the trimming, cutting, or pruning standards adopted by the American National Standards Institute.

<u>Project Applicability</u>: Based upon reviewing the City Tree Map in July 2016 we have verified that heritage trees do not occur. The project site is not adjacent to a City street and thus no street trees occur either.

2.3.2 Envision San José 2040 General Plan

The Envision San José 2040 General Plan (Envision) (City of San José 2012) was adopted in compliance with the state law requirement that each city and county prepare and adopt a comprehensive and long-range general plan for its physical development (California Government Code Section 65300). Envision is an integrated general plan document, with most elements addressed through goals, policies and implementation actions. Envision provides the City with a consistent framework for its decision-making related to the land use and delivery of municipal services. Under California law, no specific plan, area plan, community plan, zoning, subdivision map, nor public works project may be approved unless the City finds that it is consistent with the adopted general plan. The goals and policies set forth by Envision that pertain to biological resources and are relevant to the project are summarized below.

"Measurable Sustainability" includes policies related to City's community's forest and water quality that that fulfill the City's Green Vision goal. Community forest goals that are relevant to the project are described above under *City of San José's Tree Ordinance*. Water quality policies prohibit locating new development or authorizing activities with the potential to negatively impact groundwater quality in areas that have been identified as having a high degree of aquifer vulnerability by the SCVWD, or other public agencies (Goal MS-20.2). Water quality implementation action MS-20.4 protects surface water and groundwater supplies in the City's watershed from pollution and degradation through cooperation of local, regional, and state agencies.

"Environmental Resources" includes policies intended to protect the high-quality ecological habitats and other environmental resources that can be found within the City, such as the urban-natural interface and special-status plants and animals. The following goals preserve, manage, and restore suitable habitat for special-status species that are known to occur in the City, which are listed under Table ER-4 (City of San José 2012):

- Goal ER-4.1 Preserves and restores, to the greatest extent feasible, habitat areas that support special status species. Avoid development in such habitats unless no feasible alternatives exist and mitigation is provided of equivalent value.
- Goal ER-4.2 Limit recreational uses in wildlife refuges, nature preserves and wilderness areas in parks to those activities which have minimal impact on sensitive habitats.
- Goal ER-4.3 Prohibit planting of invasive non-native plant species in natural habitats that support specialstatus species.
- Goal ER-4.4 Require that development projects incorporate mitigation measures to avoid and minimize impacts to individuals of special-status species

In addition to goals that protect special-status species, Envision's lists policies that minimize adverse effects of urbanization on natural lands adjacent to the City's developed areas under "Environmental Resources" (City of San José 2012). Policies and actions that are relevant to the proposed project are listed below:

- Policy ER-6.1 Encourage fencing between residential areas and natural lands to minimize the encroachment of people, pets, and non-native vegetation into natural lands.
- Policy ER-6.2 Design development at the urban-natural land interface of the Greenline/Urban Growth Boundary (UGB) to minimize the length of the shared boundary between urban development and natural areas. In particular, this policy pertains to baylands in the Alviso community.
- Policy ER-6.3 Employ low-glare lighting in areas developed adjacent to natural areas. Any high-intensity lighting used near natural areas will be placed as close to the ground as possible and directed downward or away from natural areas.
- Policy ER-6.4 Site public facilities such as ballparks and fields that require high-intensity night lighting at least 0.5 mile from sensitive habitats to minimize light pollution, unless it can be demonstrated that lighting systems will not substantially increase lighting within natural areas (e.g., due to screening topography or vegetation).
- Policy ER-6.5 Prohibit use of invasive species within the City limits in required landscaping as part of the discretionary review of proposed development.
- Policy ER-6.6 Encourage the use of native plants in the landscaping of developed areas adjacent to natural lands.
- Policy ER-6.7 Include barriers to animal movement within new development and, when possible, within existing development, to prevent movement of animals (e.g., pets and wildlife) between developed areas and natural habitat areas where such barriers will help to protect sensitive species.
- Policy ER-6.8 Design and construct development to avoid changes in drainage patterns across adjacent natural areas and for adjacent native trees, such as oaks.
- Action ER-6.9 Work with landowners, landscapers, nurseries, and the multi-agency Santa Clara County Weed Management Area to remove and prevent the spread of highly invasive and noxious weeds. Invasive plants are those plants listed in the State's Noxious Weed List, the California Invasive Plant Council's list of "Exotic Pest Plants of Greatest Ecological Concern in California," and other priority species identified by the agricultural commissioner and California Department of Agriculture.
- Action ER-6.10 Update the Riparian Corridor Policy Study and all City design guidelines based on guidance from Responsible Agencies on best practices for lighting to protect sensitive habitats and species, including birds and bats.

The Envision San José 2040 General Plan (General Plan) (City of San José 2012) also includes the following policies related to bird-safe design:

- *Environmental Resource-7.1*: In the area north of Highway 237 design and construct buildings and structures using bird-friendly design and practices to reduce the potential for bird strikes for species associated with the baylands or the riparian habitats of lower Coyote Creek.
- *Environmental Resource-7.6*: Update the Riparian Corridor Policy Study and City of San José design guidelines based on guidance from Responsible Agencies and other interested organizations on best practices for avoiding and minimizing bird strikes at new tall buildings.

<u>Project Applicability</u>: The project will comply with the City of San José's General Plan and not use invasive species on the site. No lighting facilities, buildings, or other such structures would be built by this project.

2.3.3 City of San José Riparian Policy

The City of San José has a riparian buffer policy that is in neither the Municipal Code nor the General Plan. The riparian buffer policy is administered through use of a *Riparian Corridor Policy Study* (Policy Study) document that describes suggested buffer widths (City of San José 1999). The Policy Study defines a riparian corridor as any defined stream channel, including the area up to the bank full-flow line, as well as all riparian (streamside) vegetation in contiguous adjacent uplands. Characteristic woody vegetation could include (but is not limited to) willow (*Salix* spp.), alder (*Alnus* spp.), box elder (*Acer negundo*), Fremont cottonwood (*Populus fremontii*), bigleaf maple (*Acer macrophyllum*), western sycamore (*Platanus racemosa*), and oaks (*Querus* spp.). Stream channels include all perennial and intermittent streams shown as a solid or blue line on USGS topographic maps, and ephemeral streams or "arroyos" with well-defined channels and some evidence of scour or deposition. The Policy Study states that riparian setbacks should be measured 100 feet from the outside edges of riparian habitat or the top of bank, whichever is greater. However, the Policy Study also states that setback distances for individual sites may vary if consultation with the City of San José and a qualified biologist, or other appropriate means, indicates that a smaller or larger setback is more appropriate for consistency with riparian preservation objectives (City of San José 1999). Additionally, the setbacks specifically apply to buildings, impervious surfaces, and ornamental landscape areas.

The Santa Clara Valley Water Resources Protection Collaborative Guidelines and Standards for Land-Use Near Streams (Guidelines and Standards) document was also reviewed (Santa Clara Valley Water Resources Protection Collaborative [SCVWRP Collaborative] 2007). This document defines the top of bank line as the stream boundary where a majority of normal discharges and channel forming events take place; containing the active channel, active floodplain, and their associated banks. The top of bank along streams with levees should be delineated on the inner edge of the levee (see Chapter 11, SCVWRP Collaborative 2007).

<u>Project Applicability</u>: The City's Policy Study recommends a protective buffer be established along streams so that aquatic and riparian resources are not impacted by development. The riparian setback along Coyote Creek extends 100 feet inland from the inboard top of levee. The entire project site is dependent on proximity to the creek and is located inside this setback. The project storm drain outfall cannot be designed to avoid the riparian setback because it is designed to discharge to Coyote Creek. However, this project is still consistent with the

policy because buildings, impervious surfaces, and ornamental landscape areas are not proposed, and it meets the utility exemption to the policy.

2.3.4 Santa Clara Valley Habitat Plan

The Santa Clara Valley Habitat Agency leads the implementation of the VHP. It is a regional partnership between six local partners, including the County of Santa Clara, Santa Clara Valley Transportation Authority, Santa Clara Valley Water District (SCVWD), the Cities of San José, Gilroy, and Morgan Hill), CDFW, and USFWS. In 2013 the VHP was adopted by all local participating agencies, and permits were issued from the USFWS and CDFW. It is both a habitat conservation plan and natural community conservation plan, or HCP/NCCP. The planning document helps private and public entities plan and conduct projects and activities in ways that lessen impacts on natural resources, including specific threatened and endangered species. The VHP identifies regional lands (called reserves) to be preserved or restored to benefit of at-risk species, and describes how reserves will be managed and monitored to ensure that they benefit those species. In providing a long-term, coordinated planning for habitat restoration and conservation, the VHP aims to enhance the viability of threatened and endangered species throughout the Santa Clara Valley.

The VHP defines specific measures to avoid, minimize, and mitigate impacts on covered species and their habitats while allowing for the implementation of certain "covered projects". The USFWS, a signatory of the VHP, will provide incidental take approval for the project's impacts to federally listed species via Section 10 of the FESA. In conformance with the VHP, project proponents are required to pay impact fees in accordance with the types and acreage of habitat or "land cover" impacted, and to implement conservation measures specified by the VHP. Land cover impacts are used because it is the best predictor of potential species habitat, and is applicable to all of the covered species (with the exception of the burrowing owl). The Santa Clara Valley Habitat Agency has mapped 3 fee zones in the VHP area: (A) ranchland and natural lands, (B), agricultural and valley floor lands, and (C) small vacant sites (SCVHA 2016). The following areas are exempt from land cover fees:

- All development that occurs on land mapped by the VHP as urban-suburban, landfill, reservoir (excluding dams), or agriculture developed land cover types
- Other exempt activities include urban development in fee zones A-C on parcels less than 0.5 acres
- Additions to structures within 50 feet of existing structure that result in less than 5000 feet of impervious surface so long as there is no effect on wetland or serpentine land cover types
- Construction of recreational facilities within the reserve system.

<u>Project Applicability</u>: The project site is located in the VHP area. Because the project is a VHP-covered project, it will comply with all applicable VHP conditions. Section 5.1.1 on the Santa Clara Valley Habitat Plan further explains how the VHP applies to the project.
2.3.5 State and Local Requirements to Control Construction-Phase and Post-Construction Water Quality Impacts

2.3.5.1 Construction Phase

Construction projects in California causing land disturbances that are equal to one acre or greater must comply with State requirements to control the discharge of stormwater pollutants under the NPDES *General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities* (Construction General Permit; Water Board Order No. 2009-0009-DWQ). Prior to the start of construction/demolition, a Notice of Intent must be filed with the State Water Board describing the project. A Storm Water Pollution Prevention Plan must be developed and maintained during the project and it must include the use of Best Management Practices (BMPs) to protect water quality until the site is stabilized.

Similarly, within the City of San José city limits regardless of size, all construction/demolition projects must comply with the City of San José's Grading Ordinance, which requires the use of erosion and sediment controls to protect water quality while the site is under construction. Prior to the issuance of a permit for grading activity that occurs during the rainy season (October 15 to April 15), an Erosion Control Plan must be submitted to the Department of Public Works detailing Best Management Practices that will prevent the discharge of storm water pollutants.

Standard permit conditions under both of these permits requires that the applicant utilize various measures including: on-site sediment control best management practices, damp street sweeping, temporary cover of disturbed land surfaces to control erosion during construction, and utilization of stabilized construction entrances and/or wash racks, among other factors. Additionally, the Construction General Permit does not extend coverage to projects if storm water discharge-related activities are likely to jeopardize the continued existence, or result in take of any federally-listed endangered or threatened species.

<u>Project Applicability</u>: The outfall project is smaller than one acre but will still comply with the requirements of the NPDES permit and the City Grading Ordinance, thus, construction phase activities would not result in detrimental water quality effects upon biological/regulated resources.

2.3.5.2 Post-Construction Phase

In California, projects must also comply with the *California Regional Water Quality Control Board, San Francisco Bay Region, Municipal Regional Stormwater NPDES Permit* (MRP) (Water Board Order No. R2-2009-0074). Within the City of San José projects must also comply with the *City Councial Policy 6-29, Post Construction Urban Runoff Management* and *City Council Policy 8-14, Post Construction Hydromodification Management Policy and Map.* These policies require that all projects implement Best Management Practices and incorporate Low Impact Development practices into the design that prevents storm water runoff pollution, promotes infiltration, and holds/slows down the volume of water coming from a site. In order to meet these permit and policy requirements, projects must incorporate the use of green roofs, impervious surfaces, tree planters, grassy swales, bioretention and/or detention basins, among other factors. <u>Project Applicability</u>: The project, will comply with the requirements of the MRP permit and the City Policies, thus, post-construction activities would not result in detrimental water quality effects upon biological/regulated resources.

Section 3. Methods

H. T. Harvey & Associates senior wildlife ecologist Patrick Stone, B.S., and senior plant ecologist Élan Alford, Ph.D., characterized the existing biotic conditions at the project site, which included all areas expected to be directly impacted by the proposed project (Figure 2). Prior to conducting fieldwork, H. T. Harvey & Associates ecologists reviewed relevant background information, including information from the following sources:

- California Natural Diversity Database (CNDDB) and its associated species accounts (CNDDB 2016);
- Species list information for the project vicinity from the U.S. Fish and Wildlife Service (USFWS) (https://ecos.fws.gov/ipac/);
- California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California (CNPS 2016);
- Jepson Manual Second Edition (Baldwin et al. 2012);
- Relevant scientific literature, technical databases, and resource agency reports; and
- the VHP (ICF International 2012).

The search of CNDDB Rarefind published accounts (CNDDB 2016) was conducted for special-status plant and wildlife species occurring in the *Milpitas, California* USGS 7.5-minute topographic quadrangle within which the site is located, as well as the eight surrounding quadrangles (*Niles, La Costa Valley, Mountain View, Cupertino, Newark, Calaveras Reservoir, San Jose West,* and *San Jose East*). In addition, for plants, we reviewed the Online Inventory of Rare Plants (CNPS 2016) for information regarding the distribution and habitats of vascular plants designated as California Rare Plant Rank (CRPR) 1A, 1B, 2A, 2B, or 3 that occur in any of the nine USGS quadrangles listed above. We also considered the CNPS plant list for Santa Clara County, as the CNPS does not maintain quadrangle-level records for CRPR 4 species.

Reconnaissance-level surveys of the project site were conducted by Dr. Alford on March 22 and July 5, 2016 and by Mr. Stone on July 6, 2016. The purpose of these surveys was to provide a project-specific impact assessment for the development of the site as described above. Specifically, the surveys were conducted to (1) assess existing biotic habitats and plant and animal communities on the project site, (2) assess the site for its potential to support special-status species and their habitats, and (3) identify potential jurisdictional habitats (such as waters of the U.S./state), although a formal wetland delineation was not conducted. In addition, Mr. Stone conducted focused surveys throughout the project site and surrounding areas within 250-feet of the site for nesting raptors, nesting or roosting western burrowing owls (*Athene cunicularia*), and nesting San Francisco dusky-footed woodrats (*Neotoma fuscipes annectens*).



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H. T. HARVEY & ASSOCIATES Ecological Consultants

Cilker Property Biological Resources Report (3855-01) August 2016 Based on a review of historical aerial photos (National Environmental Title Research 2016, Google Inc. 2016), land use on much of the project site was agricultural row crops west of Coyote Creek from at least 1948 through 1987. Mature riparian forest lined Coyote Creek during this period. After 1987 the existing channel at Coyote Creek was widened and by 1993, land-use changes had reduced the area under row crops. Subsequently, additional trees grew in the widened area and extended to additional areas at the inboard side of the levee that were previously not forested. This new tree growth is visible on historical aerial photographs and the site appears to have supported mature tree canopy by 2002. Currently, the southwestern portion of the project site is an undeveloped, grassy field on the outboard side of the levee. The inboard side of the levee is also undeveloped and contains grassland and mature riparian forest. Wetland habitats occur along the northeastern edge of the site, along the Coyote Creek channel.

Much of the site is gently sloped down toward Coyote Creek. A levee separates the large northeast and smaller southwest portions of the site. Soils in the project site are Elder fine sandy loam soils (Natural Resources Conservation Service 2016). The climate conditions for this area include a 30-year normal of 15.49 inches of annual precipitation and a 70.4° F average maximum temperature and 50.1° F average minimum temperature (PRISM 2016).

4.1 General Habitat Conditions and Wildlife Use

Land cover types on the entire project site were previously mapped as part of the VHP program (ICF International 2012). For this report, the land cover classes present on the project site, while based on the VHP mapping, have been refined and updated to reflect current conditions and a finer mapping scale. These habitats, also termed "land cover" types in accordance with the VHP, are described on the following pages. The field survey identified four general biotic habitats/land cover types on the project site: California annual grassland, mixed riparian forest and woodland, seasonal wetland, and urban/suburban. These habitat/land cover types were named in accordance with accepted VHP land cover classes. Table 1 provides a summary of the land cover acreages on the site, and their distribution is depicted in Figure 2. Representative photos of each land cover type are also provided below.

Land Cover Type	Area (acres)	Percentage of Site
California annual grassland	0.25	58
Mixed Riparian Forest and Woodland	0.11	25
Seasonal Wetland	0.02	5
Urban/Suburban	0.05	12
Total	0.43	100

Table 1. Habitat Acreages in the Project Site

4.1.1 Vegetation

California Annual Grassland. On the project site, the grassland is pervasively present where tree cover is absent (Photo 1) and it comprises 0.25 acre in the project site (Figure 2). It occurs between the northern edge of the tree canopy between the riparian forest and seasonal wetlands along the edge of Coyote Creek. The grassland is ruderal, meaning that it is typically composed of a suite of non-native annual species that tolerate disturbance. Native vegetation is limited in ruderal grassland habitats. Wild oats (*Avena* sp.), ripgut brome (*Bromus diandrus*), Smilo grass (*Stipa miliacea*), wild radish (*Raphanus sativus*), prickly lettuce (*Lactuca serriola*), rattail fescue (*Festuca myuros*), Italian ryegrass (*Festuca perennis*), and cheeseweed (*Malva parviflorea*) are common plants in the California annual grassland. Some scattered invasive perennial pepperweed (*Lepidium latifolium*) are also present but more abundant off site to the north. Portions of this grassland habitat type include the VHP land

cover class "grain, row crop, hay and pasture or willow riparian forest" as mapped on the west side of the levee by ICF International (2012). For the purposes of this analysis, the agricultural VHP land cover type was replaced with California annual grassland to reflect the current site-specific observations. Agricultural practices do not appear to have been in use recently and ruderal, non-native, herbaceous vegetation is currently present. On the southwest side of the project site the grassland and was mowed down to a few inches of stubble at the time of the survey. In addition to the flatter areas of the project site the levee banks are also dominated by this California annual grassland vegetation type.

Mixed Riparian Forest and Woodland. Mature trees occur in the mixed riparian forest and woodland (Photo 2) in 0.11 acre of the project site (Figure 2). Prior VHP mapping by ICF International (2012) shows the entire inboard side of the levee as willow riparian habitat, however this designation was refined here to the existing extent of woodland canopy. Our report changes the designation from willow riparian to mixed riparian forest as a result of the lack of willow species being observed during site visits. Rather, the dominant trees are Fremont cottonwood (*Populus fremontii*), which is mixed with coast live oak (*Quercus agrifolia*) and buckeye (*Aesculus californica*) that have grown up in a broad excavated terrace around



Photo 1. California annual grassland.



Photo 2. Mixed Riparian Forest and Woodland.

Coyote Creek (Photo 2; Figure 2). According to historic imagery analysis, this small extent of woodland appears to have grown up in an area that was previously grassland up until around 1993, and by 1998, trees and scrub

species can be observed in aerial photographs (National Environmental Title Research 2016). Currently the site supports mature forest with several large diameter trees creating an intermittent to closed canopy.

Seasonal Wetland. A small strip of seasonal wetland on 0.02 acre of the project site occurs at the northeast edge of the site (Figure 2). This wetland is dominated by poison hemlock (*Conium maculatum*), curly dock (*Rumex crispus*), and California mugwort (*Artemisia douglasiana*) (Photo 3). The seasonal wetland abuts cattail dominated (*Typha sp.*) coastal valley and freshwater marsh wetland habitat that lines the low flow channel of Coyote Creek. Both the coastal valley and freshwater marsh and stream features are outside the project site. In the on-site seasonal wetland poison hemlock and curly dock plants are approximately 5-7 feet tall and exist in a narrow strip in a transition zone along the slope between the wetter



Photo 3. Seasonal Wetland.

channel below and the drier and flatter terrace where the California annual grassland and mixed riparian woodland occur. Current VHP mapping shows this area as willow riparian forest and scrub, but we have updated the existing VHP mapping based on the current observed site conditions. There is a distinct break in wetland vegetation types between the cattails associated with the channel, which is outside the project site, and this higher and drier suite of facultative plants on the bank slope in the project site. The higher topographic position and plant composition indicates that inundation or saturation in the seasonal wetlands on the project site is less frequent than the lower cattail wetlands, and this hydrology would be associated with seasonal storm flows or reservoir release flows.

Urban/Suburban. Crushed gravel roads on the levee top and the immediate inboard side of the levee are the dominant feature in the urban/suburban habitat type (Photo 4); which occurs on 0.05 acre of the project site (Figure 2). This is a designated land cover defined in the VHP. The VHP definition is that there are one or more structures per 2.5 acres in urban/suburban land cover areas. However, it also includes land that has been cleared of vegetation for transportation purposes. With an unpaved road surface being the major defining factor, we determined that the levee roads are urban/suburban land cover types even if no structures occur in the project site. The roads are mostly devoid of vegetation.



Photo 4. Urban/Suburban.

The edges of the road intergrade with the California annual grassland habitat. Along the edge of the road rattail fescue commonly occurs. Native plant species are generally absent from this habitat because of the level of

disturbance and extent of gravel ground cover material. These areas are also generally described as developed lands. The VHP used the willow riparian forest and scrub and the agricultural land cover of grain, row-crop, hay and pasture, disked/short-term fallowed designation to map these portions of the project site. Our site visit analysis and finer scale mapping resulted in classifying these gravel roads as urban/suburban land cover.

4.1.2 Wildlife

California Annual Grassland. Many of the species that occur on the site are species that are common in urban and suburban areas and use annual grassland habitat on the site for foraging. Such species include the American crow (*Corrus brachyrhynchos*), California towhee (*California towhee*), mourning dove (*Zenaida macroura*), house finch (*Haemorhous mexicanus*), lesser goldfinch (*Carduelis psaltria*), and American goldfinch (*Carduelis tristis*). Likewise, a few species nesting on nearby bridges and overpasses, such as the cliff swallow (*Petrochelidon pyrrhonota*), barn swallow (*Hirundo rustica*), and black phoebe (*Sayornis nigricans*), also forage on or over the grassland habitat on the site. The annual grassland within the project footprint likely does not provide nesting habitat for any bird species such as the white-crowed sparrow (*Zonotrichia leucophrys*) and golden-crowned sparrow (*Zonotrichia atricapilla*) also forage on the ground or in herbaceous vegetation, primarily for seeds. However, the small extent of the project footprint and the high levels of development and human disturbance that occur in nearby areas limit wildlife use of the grassland habitat on the project site. As a result, wildlife species associated with more extensive grassland habitats in the region, such as the grasshopper sparrow (*Ammodramus savannarum*), are absent from this habitat within the project site.

Reptiles and amphibians occurring in the grasslands on the project site include the western fence lizard (*Sceloporus occidentalis*), gopher snake (*Pituophis melanoleucus*), and common garter snake (*Thamnophis sirtalis*). Small mammals present include the western harvest mouse (*Reithrodontomys megalotis*), house mouse (*Mus musculus*), and California ground squirrel (*Spermophilus beecheyt*). These species, in turn, attract raptors such as the American kestrel (*Falco sparverius*), red-tailed hawk (*Buteo jamaicensis*), and northern harrier (*Circus cyaneus*). Larger mammals, such as the striped skunk (*Mephitis mephitis*), raccoon (*Procyon lotor*), Virginia opossum (*Didelphis virginiana*), and black-tailed hare (*Lepus californicus*), also occur in this habitat.

Mixed Riparian Forest and Woodland. The mixed riparian woodland habitat in the project area supports a mature tree canopy and a large diversity of wildlife species, particularly birds, and the riparian woodland corridor associated with Coyote Creek provides suitable breeding and foraging habitat for songbirds in the vicinity. American crows, chestnut-backed chickadees (*Poecile rufescens*), downy woodpeckers (*Picoides pubescens*), Bewick's wrens (*Thryomanes bewickii*), Anna's hummingbirds (*Calypte anna*), American robins (*Turdus migratorius*), and other birds nest in the trees and other vegetation in riparian woodland habitat on the project site. Up to one pair of a raptor species, such as the red-tailed hawk (*Buteo jamaicensis*) or red-shouldered hawk (*Buteo lineatus*), could also nest in the two large cottonwood trees, although the limited extent of such large trees within the project footprint reduces this potential, and no raptor nests were observed on the project site during reconnaissance-level and focused surveys conducted in July 2016. During migration, trees on the site provide foraging habitat for numerous species of migrating birds, including a number of species of warblers, vireos, flycatchers, and

sparrows. The cottonwood trees and the buckeye tree are deciduous, and thus provide poor cover in winter, but the site still supports large numbers of foraging birds during this season. Common waterfowl, such as mallards (*Anas platyrhynchos*), forage in and along Coyote Creek year-round, and may breed in riparian woodland habitat on the project site, but the highest densities of waterbird species in the project vicinity occur during winter and migration.

Reptiles and amphibians occurring in the riparian woodlands on the project site are similar to those occurring in adjacent annual grasslands and include the gopher snake, common garter snake, and Sierran chorus frog (*Pseudacris sierra*). Small mammals present include the house mouse and Norway rat (*Rattus norvegicus*). Larger mammals, such as striped skunk, raccoon, and Virginia opossum occur in the project vicinity and frequently move through the Coyote Creek corridor, including the riparian woodland habitat on the project site.

Seasonal Wetland. The small seasonal wetland in the project area sits in a transition zone between upland and aquatic habitats and provides suitable habitat for a large variety of common wildlife species similar to the California annual grassland and the riparian woodland habitats on the project site. Mallards and other waterfowl that occur in Coyote Creek may use the seasonal wetland habitat for nesting. Insects with aquatic larvae, such as dragonflies (Odonata) and chironomid midges (Chironomidae) occur in the Coyote Creek corridor, including the seasonal wetland habitat. These insects provide food for a variety of aerial foragers such as swallows and bats, which regularly forage over the Coyote Creek channel and suitable adjacent areas, including the seasonal wetland habitat on the project site.

No aquatic habitat for fish or amphibian species occurs on the project site. However, western pond turtle (*Actinemys marmorata*), Sierran chorus frog, bullfrog (*Lithobates catesbeiana*), and a variety of fish species occur in aquatic habitats in Coyote Creek, and these species may occur in the reach located adjacent to and east of the project site. Central California coast steelhead (*Oncorhynchus mykiss*) also move through Coyote Creek during migration between estuarine/oceanic habitat downstream and spawning or rearing habitat upstream, although this species is not expected to spawn in the reach located adjacent to the project site.

Urban/Suburban. Gravel areas that lack vegetation do not provide high-quality wildlife habitat; however, snakes and lizards may bask on these surfaces and a variety of wildlife may cross over or move along the levee roads within the project site to move between other habitats in the vicinity.

4.2 Special-Status Plant and Animal Species

As described in *Methods* above, information concerning threatened, endangered, or other special-status species that could occur on the project site was collected from several sources and reviewed by H. T. Harvey & Associates biologists. The specific habitat requirements and the locations of known occurrences of each special-status species were the principal criteria used for inclusion in the list of species potentially occurring on the site. Figures 3 and 4 are maps of the CNDDB's special-status plant and animal species records in the general vicinity of the project site, defined for the purposes of this report as the area within a 5-mile radius. These generalized

maps are valuable on a historical basis, as they show areas where special-status species occur or have occurred previously, but they do not necessarily represent current conditions or indicate where species are absent.

4.2.1 Special-Status Plants

A list of 70 special-status plants with some potential for occurrence on the project site was compiled using CNPS (2016) and CNDDB (2016) records and then reviewed. Analysis of the documented habitat requirements and occurrence records associated with all of the species considered allowed us to reject 69 of the 70 species as not having a reasonable potential to occur on the project site. These 69 species were rejected based on one or more of the following reasons: (1) the species has a very limited range of endemism and has never been observed in the vicinity of the project site; (2) species elevation ranges are outside the elevation limits of the project site; (3) specific, edaphic soil characteristics, such as serpentine soils are absent from the project site; (4) observed absence of perennial special-status species; or (5) the site is too disturbed.

Based upon species habitat occurrences, edaphic requirements, and ranges, one species were determined to have some potential to occur on the project site, Congdon's tarplant (*Centromadia parryi* ssp. *congdonii*). It was considered to have some potential to occur within habitats similar to those in the project site based on its general habitat requirements and known distribution, and thus warranted further analysis.

Congdon's Tarplant (*Centromadia partyi* ssp. *congdonii***).** Federal Listing Status: None; State Listing Status: None; CRPR: 1B.1. Congdon's tarplant is an annual herb in the composite family (Asteraceae) that has a variable blooming period extending from June through November. It occurs in valley and foothill grasslands, particularly those with alkaline substrates, and in slumps or disturbed areas where water collects in lower elevation wetlands below approximately 760 feet. This subspecies tolerates disturbance and often occurs in disked fields with non-native, California annual grassland habitat with hood canary grass (*Phalaris paradoxa*) and alkali mallow (*Malvella leprosa*). This species is documented from 91 occurrences, including several from Alviso, and it is considered seriously threatened by development (CNPS 2016). The closest known CNDDB specific location record of Congdon's tarplant (CNDDB occurrence #41) is located approximately 1.8 miles west of the project site in disturbed grassland.





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> Calaveras Reservoir

most beautiful jewelflower

Santa Clara red ribbons

chaparralharebell

maple-leaved checkerbloom fragrant fritillary Hall's bush-mallow

Foothills

No

RACI

East

Santa Clara red ribbons

Background: Esri Street Base Map

Figure 3. CNDDB Plant Records Cilker Property Biological Resources Report (3855-01) August 2016





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Figure 4. CNDDB Animal Records Cilker Property Biological Resources Report (3855-01) August 2016

Based on the proximity of the project site to known occurrences of the species and this species' ability to grow in disturbed habitats, it was determined that potentially suitable habitat for Congdon's tarplant exists within the project site in the small area of California annual grassland habitat on the outboard and inboard levee sides of the site. Congdon's tarplant is most commonly found in seasonal alkaline wetland depressions that are periodically disturbed (often with mowing or disking). This species is also known to tolerate disturbance of the type that has occurred on portions of the project site, and it is known from several occurrences including Alviso and the Sunnyvale Baylands Park. Therefore, the project site is considered suitable habitat for this species. The July 5, 2016 site survey was conducted during the published bloom period for Congdon's tarplant. A reference site at Sunnyvale Baylands Park was observed in bloom on June 29, 2016. Reconnaissance-level project site surveys conducted by Dr. Alford in July 2016 did not detect any plants resembling Congdon's tarplant at the site. Therefore, Congdon's tarplant is considered absent from the project site.

4.2.2 Special-Status Animals

CNDDB (2016) records (Figure 4), VHP mapping, and other data sources, coupled with our review of habitat conditions on the project site, determined that several special-status animal species are known to occur in the project region. The legal status and likelihood of occurrence on the project site of special-status animal species known to occur, or potentially occurring, in the project region are presented in Table 2. The majority of these species were determined to be absent from the project site due to a lack of suitable habitat or to evidence that the species does not occur in the project vicinity. Species considered for occurrence but rejected, as well as the reasons for their rejection, include the following (among others):

- Populations of the California tiger salamander (*Ambystoma californiense*), federally and state listed as threatened, located on the Santa Clara Valley floor have been extirpated due to habitat loss, and the species is now considered absent from the majority of the region, including the project site (H. T. Harvey & Associates 1999, 2012; Santa Clara Valley Water District 2011). No recent records of California tiger salamanders are located anywhere in the project vicinity (CNDDB 2016), and the project site is not mapped as habitat for the California tiger salamander by the VHP. Thus, the species is determined to be absent from the project site.
- The California red-legged frog (*Rana draytonii*), federally listed as threatened and a California species of special concern, has been extirpated from the majority of the project region, including the entire urbanized Santa Clara Valley floor, due to development, the alteration of hydrology of its aquatic habitats, and the introduction of non-native predators such as non-native fishes and bullfrogs (H. T. Harvey & Associates 1997; Santa Clara Valley Water District 2011). The VHP model maps the northeastern portion of the project site, inboard of the levees and along Coyote Creek, as primary habitat for this species. However, there is no suitable aquatic habitat on the project site, we do not expect this species to be present on the site for the previously mentioned reasons, and there are no records of California red-legged frogs from anywhere in the project vicinity (CNDDB 2016). Thus, California red-legged frogs are determined to be absent from the project site.

- The California Ridgway's rail (*Rallus obsoletus obsoletus*), federally and state listed as endangered, is known to occur 4 miles west of the project site in Alviso Slough (CNDDB 2016), where the tidal marsh is dominated by salt-marsh plant species. However, suitable habitat is not present within the project site, or in the reach of the Coyote Creek corridor adjacent to the project site, which is dominated by freshwater vegetation. This species has not been recorded in Coyote Creek or as far upstream as the project site. Thus, the California Ridgway's rail is determined to be absent from the project site.
- The California black rail (*Laterallus jamaicensis*), state listed as threatened, is also known to occur west of the project site in Alviso Slough, in tidal salt marsh and brackish marsh habitats. However, suitable habitat is not present within the project site, or in the freshwater marsh vegetation along the Coyote Creek corridor adjacent to the project site, and this species has not been recorded in Coyote Creek or as far upstream as the project site. Thus, the California black rail is determined to be absent from the project site.
- The yellow-breasted chat (*Icteria virens*), a California species of special concern, is a rare breeder, and only slightly more regular transient, in willow-dominated riparian habitats in the project region. However, suitably large, dense stands of riparian habitat with a dense understory are not present on or adjacent to the project site, and this species has not been recorded breeding in the project vicinity. Thus, the yellow-breasted chat is determined to be absent.
- Although the VHP maps a portion of the project site adjacent to Coyote Creek as habitat for the tricolored blackbird (*Agelaius tricolor*), a state candidate for listing, this species has not been recorded nesting on the project site (CNDDB 2016, Bousman 2007a), despite regular coverage of the area by birders assisting with bird-banding at the nearby Coyote Creek Field Station. Further, although potentially suitable nesting habitat was identified along the Coyote Creek channel to the east of the project site, this habitat was limited in extent and no tricolored blackbirds were observed during the reconnaissance-level and focused surveys conducted in July 2016. Individual tricolored blackbird may occur in seasonal wetland and freshwater marsh habitats in the project vicinity as occasional foragers; however, this species is determined to be absent from the project site as a breeder.
- The salt marsh harvest mouse (*Reithrodontomys raviventris*), federally and state listed as endangered, and the salt marsh wandering shrew (*Sorex vagrans halicoetes*), a California species of special concern, are known to occur in salt marsh habitats of the south Bay to the north and northwest of the project site (CNDDB 2016). However, suitable salt marsh habitat for these species is not present within the project site, or in the reach of Coyote Creek adjacent to the project site. The reach of the Coyote Creek corridor located adjacent to the project site supports only freshwater vegetation that is not suitable for these species. Thus, these species are determined to be absent from the project site.
- The project site supports large riparian trees, but these trees lack large cavities that would provide suitable roosting habitat for maternity colonies, or large nonbreeding colonies, of the pallid bat (*Antrozous pallidus*), a California species of special concern. Although the pallid bat may occasionally fly over the project site or the adjacent Coyote Creek channel while foraging, breeding colonies of special-status bat species are determined to be absent from the project site.

- The San Francisco dusky-footed woodrat, a California species of special concern, is known to occur in the Coyote Creek corridor downstream from the project site (H. T. Harvey & Associates 2010a; CNDDB 2016). However, a focused survey of the project site in July 2016 detected no woodrat nests within the project footprint. Thus, this species is determined to be absent from the project site.
- The Central California coast steelhead (*Oncorhynchus mykiss*), federally listed as threatened, and the Central Valley Fall-Run Chinook salmon (*Oncorhynchus tshanytscha*), a California species of special concern, occur in the reach of Coyote Creek located adjacent to the project site during migration between marine habitats and upstream spawning habitats. However, no aquatic habitat for special-status fish species occurs on the project site, and these species are thus determined to be absent.

Name	*Status	Habitat	Potential for Occurrence on Project Site		
Federal or State Endangered, Rare, or Threatened Species					
Green sturgeon (Acipenser medirostris)	FT, CSSC	Spawns in large river systems such as the Sacramento River; forages in nearshore oceanic waters, bays, and estuaries.	Absent. No aquatic habitat is present on the project site. Green sturgeon may forage infrequently, and in low numbers, in tidal reaches of Coyote Creek downstream from the site; however, the reach of the creek located adjacent to the project site does not provide suitable habitat.		
Longfin smelt (Spirinchus thaleichthys)	FC, ST	Spawns in fresh water in the upper end of the Bay; occurs year-round in the South Bay.	Absent. No aquatic habitat is present on the project site and the species is not known to spawn in the project vicinity. Pre- spawning adults and yearling juveniles may be present in tidal reaches of Coyote Creek and slough downstream of the project site, although fish sampling in Coyote Slough has detected the species only in January and March, suggesting that it may be absent during the summer (Hobbs et al. 2012).		
Central California Coast steelhead (Oncorhynchus mykiss)	FT	Cool streams with suitable spawning habitat and conditions allowing migration between spawning and marine habitats.	Absent. No aquatic habitat is present on the project site. However, steelhead occur in Coyote Creek adjacent to the project site during upstream migration of adults to spawning areas and downstream migration of both adults and smolts.		

 Table 2.
 Special Status Animal Species, Their Status, and Potential Occurrence on the Project Site

Name	*Status	Habitat	Potential for Occurrence on Project Site
California tiger salamander (Ambystoma californiense)	FT, ST, VHP	Vernal or temporary pools in annual grasslands or open woodlands.	Absent. Populations located on the Valley floor have been extirpated due to habitat loss, and the species is now considered absent from the majority of the valley floor, including the project site (H. T. Harvey & Associates 1999a, 2012; SCVWD 2011). No recent records of California tiger salamanders are located anywhere in the project vicinity (CNDDB 2016), the VHP does not map the project site as supporting the species, and the species is determined to be absent from the project site and vicinity.
California red- legged frog (Rana draytonii)	FT, CSSC, VHP	Streams, freshwater pools, and ponds with emergent or overhanging vegetation.	Absent. The VHP maps primary habitat for this species along Coyote Creek and within the project site inboard of the levee (ICF International 2012). However, this species has been extirpated from the majority of the project region, including the entire urbanized Valley floor, due to development, the alteration of hydrology of its aquatic habitats, and the introduction of non-native predators such as non-native fishes and bullfrogs (H. T. Harvey & Associates 1997; SCVWD 2011). Also, no suitable aquatic habitat for this species occurs on the project site. Thus, California red-legged frogs are determined to be absent from the project site.
Bank swallow (Riparia riparia)	ST	Colonial nester on vertical banks or cliffs with fine-textured soils near water.	Absent. No recent nesting records from Santa Clara County (CNDDB 2016), and no suitable nesting habitat occurs in or near the project site.
Bald eagle (Haliaeetus leucocephalus)	SE, SP	Occurs mainly along seacoasts, rivers, and lakes; nests in tall trees or in cliffs, occasionally on electrical towers. Feeds mostly on fish.	Absent. No suitable nesting or foraging habitat on the project site.
Swainson's hawk (Buteo swainsonî)	ST	Nests in trees surrounded by extensive marshland or agricultural foraging habitat.	Absent. Historically nested in small numbers in Santa Clara County; there is a record of this species nesting in the Berryessa area (eastern San José) in 1894 (Bousman 2007b). Currently, the species is known to nest in Santa Clara County only in one location in Coyote Valley; otherwise, it occurs in the project region only as a very infrequent transient during migration, and the suitable nesting and foraging habitat on the project site is very limited in extent. Thus, the species is determined to be absent.

Name	*Status	Habitat	Potential for Occurrence on Project Site
California Ridgway's rail (Rallus obsoletus obsoletus)	FE, SE, SP	Salt marsh habitat dominated by pickleweed and cordgrass.	Absent. No marsh habitat is present on the project site.
California black rail (Laterallus jamaicensis coturniculus)	st, sp	Breeds in fresh, brackish, and tidal salt marsh.	Absent. No suitable nesting or foraging habitat for the California black rail is present on the project site or in Coyote Creek corridor adjacent to the site.
Salt marsh harvest mouse (Reithrodontomys raviventris)	FE, SE, SP	Salt marsh habitat dominated by common pickleweed or alkali bulrush.	Absent. Suitable pickleweed/alkali bulrush- dominated salt marsh habitat is not present on the project site or along the adjacent reach of the Coyote Creek channel.
California Species of	Special Con	cern	
Central Valley fall- run Chinook salmon (Oncorhynchus tshawytscha)	CSSC	Cool rivers and large streams that reach the ocean and that have shallow, partly shaded pools, riffles, and runs.	Absent. No aquatic habitat for this species is present on the project site. Small numbers of Chinook occur in Coyote Creek adjacent to the project site but this species is not expected to spawn there and these individuals do not represent a native run.
Foothill yellow- legged frog (Rana boylii)	CSSC, VHP	Partially shaded shallow streams and riffles with a rocky substrate. Occurs in a variety of habitats in coast ranges.	Absent. Although the VHP maps the reach of Coyote Creek located adjacent to the project site as secondary habitat (i.e., low- use habitat) for this species (ICF International 2012), suitable habitat for foothill yellow-legged frogs is absent from the project site. This species has disappeared from farmed and urbanized areas as well as many of the perennial streams below major reservoirs (H. T. Harvey & Associates 1999b).

Name	*Status	Habitat	Potential for Occurrence on Project Site
Western pond turtle (Actinemys marmorata)	CSSC, VHP	Permanent or nearly permanent water in a variety of habitats.	May be present. The VHP mapped primary and secondary habitat for this species along Coyote Creek and within the project site (ICF International 2012), although no suitable aquatic habitat is present within the site. Although breeding populations have been extirpated from most agricultural and urbanized areas in the project region, individuals of this long-lived species still occur in urban streams and ponds in the Santa Clara Valley. Individuals of this species have been recorded in the project vicinity, the reach of Coyote Creek adjacent to the project site provides suitable aquatic habitat, and individuals may occasionally use habitat on the project site for dispersal or refuge. Therefore, this species may be present on the project site as an occasional dispersant. However, owing to the small populations in urban portions of Coyote Creek and the hard-packed nature of most of the project site (on and around the levee), this species is unlikely to nest on the site.
Northern harrier (Circus cyaneus)	CSSC (nesting)	Nests in marshes and moist fields, forages over open areas.	May be Present. Northern harriers are not expected to nest on the project site due to a lack of suitable habitat. However, harriers may nest in nearby freshwater marsh habitats and likely forage on the site.
Burrowing owl (Athene cunicularia)	CSSC, VHP	Nests and roosts in open grasslands and ruderal habitats with suitable burrows, usually those made by California ground squirrels.	May be Present. The annual grassland habitat on the project site provides suitable foraging habitat for the burrowing owl, but provides only marginally suitable nesting and roosting habitat, as no suitable burrows were observed within the site during a focused survey. However, burrowing owls could nest in nearby grassland habitats with suitable ground squirrel burrows. Further, the entire project site is mapped by the VHP as occupied burrowing owl habitat, based on the historic presence of burrowing owl nests within 1 mile, and the site is located within the VHP Burrowing Owl Fee zone (SCVHA 2016).
Loggerhead shrike (Lanius ludovicianus)	CSSC (nesting)	Nests in tall shrubs and dense trees; forages in grasslands, marshes, and ruderal habitats.	May be Present. Suitable nesting and foraging habitat is present on the project site, and this species is known to breed in the Alviso area.

Name	*Status	Habitat	Potential for Occurrence on Project Site
Yellow warbler (Setophaga petechia)	CSSC (nesting)	Nests in riparian woodlands with dense understory.	May be Present. Riparian habitat on the project site provides at least moderately suitable breeding conditions for up to one pair, and this species is known to breed in small numbers along Coyote Creek downstream from Highway 237. This species also occurs on the site as a common migrant.
San Francisco common yellowthroat (Geothlypis trichas sinuosa)	CSSC	Nests in herbaceous vegetation, usually in wetlands or moist floodplains.	May be Present. This species is a common breeder in the overflow channel along Coyote Creek, and the seasonal wetland vegetation provides potential breeding habitat for up to one pair.
Yellow-breasted chat (Icteria virens)	CSSC (nesting)	Nests in dense stands of willow and other riparian habitat.	Absent as Breeder. This species is a rare breeder, and only slightly more regular transient, in willow-dominated riparian habitats in the project region. Suitably large, dense stands of willow are not present on the project site. However, this specie may occasionally use nearby dense stands of riparian habitat in the Coyote Creek corridor, and may rarely occur in the project site as a forager, if at all.
Alameda song sparrow (Melospiza melodia pusillula)	CSSC	Nests in salt marsh, primarily in marsh gumplant and cordgrass along channels.	Absent. Suitable nesting habitat for the Alameda song sparrow is not present on the project site. However, song sparrows breed in the tidal salt marshes along Coyote Slough downstream of the project site (San Francisco Bay Bird Observatory 2012).
Bryant's savannah sparrow (Passerculus sandwichensis alaudinus)	CSSC	Nests in pickleweed dominant salt marsh and adjacent ruderal habitat.	Absent as Breeder. Suitable breeding habitat is not present on the project site or along the reach of Coyote Creek adjacent to the project site, but small numbers of this species may forage on the site during the nonbreeding season.
Tricolored blackbird (Agelaius tricolor)	CSSC, VHP (nesting colony)	Nests near fresh water in dense emergent vegetation.	Absent as Breeder. Typically nests in extensive stands of tall emergent herbaceous vegetation in non-tidal freshwater marshes and ponds, which are not present on the project site. This species has not been recorded nesting on the project site (CNDDB 2016). However, the species is known to occasionally forage in the project vicinity during the nonbreeding season, and may occur on the project site only as an uncommon nonbreeding visitor, if at all.
Salt marsh wandering shrew (Sorex vagrans halicoetes)	CSSC	Medium to high marsh 6 to 8 feet above sea level with abundant driftwood and common pickleweed.	Absent. Suitable pickleweed -dominated salt marsh habitat is not present on the project site or along the adjacent reach of Coyote Creek.

Name	*Status	Habitat	Potential for Occurrence on Project Site	
Pallid bat (Antrozous pallidus)	CSSC	Forages over many habitats; roosts in caves, rock outcrops, buildings, and hollow trees.	Absent as Breeder. Historically, pallid bats were likely present in a number of locations throughout the project region, but their populations have declined in recent decades. No suitable roosting habitat for large breeding colonies is present on the project site, and no known maternity colonies are present near the project site. This species has been extirpated as a breeder from urban areas close to the Bay, as is the case around the project site. There is a low probability that the species occurs in the project vicinity due to urbanization; however, individuals from more remote colonies could occasionally forage over open habitats on the project site.	
Townsend's big- eared bat (Corynorhinus townsendii)	CSSC	Roosts in caves and mine tunnels, and occasionally in deep crevices in trees such as redwoods or in abandoned buildings, in a variety of habitats.	Absent. No known extant populations occur on the Santa Clara Valley floor, and no breeding sites are known from the project area. Suitable breeding habitat is not present on or adjacent to the project site.	
San Francisco dusky-footed woodrat (Neotoma fuscipes annectens)	CSSC	Nests in a variety of habitats including riparian areas, oak woodlands, and scrub.	Absent. Although suitable habitat is present on and immediately adjacent to the project site, no woodrat nests or evidence of woodrats were observed on the project site during focused surveys conducted in July 2016. Thus, this species is determined to be absent from the project site.	
State Fully Protected	Species			
American peregrine falcon (Falco peregrinus anatum)	SP	Forages in many habitats; nests on cliffs and tall bridges and buildings.	Absent as Breeder. Peregrine falcons are known to nest on electrical transmission towers within managed ponds near the Mountain View/Alviso area to the west of the project site, and on other structures in the South Bay, but they are not known or expected to nest on the project site. Nevertheless, the peregrine falcon may occur on the project site as an occasional forager, primarily during migration and winter.	
Golden eagle (Aquila chrysaetos)	SP	Breeds on cliffs or in large trees (rarely on electrical towers), forages in open areas.	Absent as Breeder. Suitable breeding habitat is not present on, or immediately adjacent to, the project site. This species is expected to forage in the open habitats near the project site only infrequently, if at all, based on the limited extent of suitable habitat and the low number of recorded occurrences in the project vicinity.	

Name	2	*Status	Habitat	Potential for Occurrence on Project Site
White-tailed kite SP (Elanus leucurus)		SP	Nests in tall shrubs and trees, forages in grasslands, marshes, and ruderal habitats.	May be Present. Suitable foraging and nesting habitat is present on the project site.
	-Status Specie	es Code Desi	<u>gnations</u>	
E =	Federally listed	l Endangered		
-T =	Federally listed Threatened			
-C =	Federal Candidate for listing			
SE =	State listed End	dangered		
ST =	State listed Thr	eatened		
SC =	State Candida	ate for listing		
CSSC =	California Spe	cies of Special	Concern	
SP =	State Fully Prot	ected Specie	5	
VHP =	Santa Clara V	allev Habitat P	lan Covered-Species	

No federal or state listed species are expected to occur on the project site. Several special-status species, including the western pond turtle, northern harrier, Bryant's savannah sparrow (*Passerculus sandwichensis alaudinus*), yellow-breasted chat (*Icteria virens*), tricolored blackbird, American peregrine falcon (*Falco peregrinus anatum*), golden eagle (*Aquila chrysaetos*), and pallid bat, may occur on the project site only as occasional foragers, but they do not breed on or very near the site, nor do they occur regularly or in large numbers.

Special-status animals that may breed on or very close to the site include four California species of special concern, the burrowing owl, loggerhead shrike (*Lanius ludovicianus*), yellow warbler (*Setophaga petechia*), and San Francisco common yellowthroat (*Geothlypis trichas sinuosa*), as well as the white-tailed kite (*Elanus leucurus*), a state fully protected species. These species are discussed in detail below.

Burrowing Owl (*Athene cunicularia***).** Federal Listing Status: None; State Listing Status: Species of Special Concern. Burrowing owls occur year-round in the Santa Clara Valley, using open, agricultural or grassland areas with active small mammal burrows, which they use for nesting and roosting. Typical burrowing owl habitat is treeless (because tall trees provide perches for raptors that can easily prey on burrowing owls), with minimal shrub cover and woody plant encroachment, and low density and foliage height diversity, which allows the owls to observe approaches to their nest or roost burrows. In the San Francisco Bay Area, burrowing owls are chiefly associated with burrows of California ground squirrels, which, in addition to providing nesting, roosting, and escape burrows, improve habitat for burrowing owls in other ways. For example, burrowing owls are known to favor areas with short, sparse vegetation (Coulombe 1971, Haug and Oliphant 1990, Plumpton and Lutz 1993), which provides visual protection from avian predators and foraging habitat, and ground squirrel colonies maintain short vegetation height. In the absence of ground squirrel populations, habitats soon become unsuitable for occupancy by owls.

The burrowing owl nesting season as recognized by the CDFW runs from February 1 through August 31. In Santa Clara County, burrowing owl families with non-flying young have been found as early as March 30, suggesting egg-laying dates in mid to late February, and fledged young still dependent on adults have been

found into late August (Trulio 2007). After nesting is completed, adult owls may remain in their nesting burrows or in nearby burrows, or they may migrate and over-winter elsewhere (Gorman et al. 2003). Young birds disperse across the landscape from 0.1 to 35 miles from their natal burrows (Rosier et al. 2006). Philopatry (the tendency for individuals to breed at or near their place of birth), site tenacity (the tendency for individuals to breed at or near their place of birth), site tenacity (the tendency for burrowing owls (Martin 1973, Gleason 1979, Rich 1984, Plumpton and Lutz 1993), and burrowing owls may return to a nesting site and attempt to nest even after the site has been developed. Further, past reproductive success may influence future site reoccupancy. Female burrowing owls with large broods tend to return to previously occupied nest sites, while females that fail to breed, or which produce small broods, may change nest territories in subsequent years (Lutz and Plumpton 1999).

The annual grasslands on the project site provide at least marginally suitable nesting, foraging, and roosting habitat for the burrowing owl, and the entire project site is mapped as occupied burrowing owl habitat by the VHP based on the relatively occurrence of burrowing owls in nearby areas (ICF International 2012). No California ground squirrel burrows that provide suitable nesting or wintering habitat for burrowing owls were observed within the project site during focused-level surveys conducted in July 2016, although multiple suitable ground squirrel burrows were observed within 250 feet of the site. Although we are aware of no observations of burrowing owls in the immediate vicinity of the site, several records of burrowing owl occurrence are located within 1 mile of the site (CNDDB 2016). If the species occurs on the site, it likely does so primarily as an occasional forager, but we cannot rule out the possibility that the species may nest or roost in a ground squirrel burrow on or near the site.

Loggerhead Shrike (*Lanius ludovicianus*). Federal Listing Status: None; State Listing Status: Species of Special Concern (Nesting). The loggerhead shrike is a predatory songbird associated with open habitats interspersed with shrubs, trees, poles, fences, or other perches from which it can hunt (Yosef 1996). Nests are built in densely foliated shrubs or trees, often containing thorns, which offer protection from predators and upon which prey items are impaled. The breeding season for loggerhead shrikes may begin as early as mid-February and lasts through July (Yosef 1996). Nationwide, loggerhead shrike populations have declined significantly over the last 20 years. Loggerhead shrikes are still fairly common in parts of the San Francisco Bay area, but urbanization has reduced available habitat, and local populations are likely declining (Cade and Woods 1997, Humple 2008).

Loggerhead shrikes nest in a number of locations in the project region where open grassland, ruderal, or agricultural habitats with scattered brush, chaparral, or trees provide perches and nesting sites for the species (Bousman 2007c). This species occurs slightly more widely (i.e., in smaller patches of open areas providing foraging habitat) during the nonbreeding season. The ruderal grassland and riparian woodland habitats on the project site provide suitable nesting and foraging habitat for the loggerhead shrike. However, based on the extent of suitable habitat on the project site and typical territory sizes of this species, no more than one pair of loggerhead shrikes is expected to nest on the project site.

Yellow Warbler (*Dendroica petechia*). Federal Listing Status: None; State Listing Status: Species of Special Concern (Nesting). The yellow warbler is a widespread neotropical migrant that inhabits wet deciduous forests throughout North America (Lowther et al. 1999). In California, yellow warbler occupies wooded riparian habitats along the coast, on both eastern and western slopes of the Sierra Nevada up to approximately 1,700 feet, and throughout the northern portion of the state (Heath 2008). Its range has remained relatively stable over time, but populations have declined substantially in many localities because of habitat loss (Cain et al. 2003, Heath 2008) and expansion of the brood-parasitic, brown-headed cowbird (*Molothrus ater*). As a result, breeding yellow warbler has been largely extirpated from the Santa Clara Valley (Heath 2008). Ideal breeding habitat for yellow warbler consists of riparian corridors with dense, shrubby understory and open canopy (Lowther et al. 1999, Cain et al. 2003, Heath 2008). Yellow warbler breeds from early May through early August, and constructs open-cup nests in upright forks of shrubs or trees in dense willow thickets or other dense vegetation (Lowther et al. 1999).

Yellow warblers are uncommon breeders in the project vicinity due to loss of riparian habitat, invasion by nonnative plants, development along riparian corridors, and the abundance of the brown-headed cowbirds in the San Jose area. However, small numbers of yellow warblers still breed in remnant riparian areas within Santa Clara County (Bousman 2007d). Suitable breeding habitat consists of riparian corridors, often with an overstory of mature cottonwoods and sycamores, a midstory of box elder and willow, and a substantial shrub understory (Bousman 2007d). Riparian areas with reduced understory because of grazing or disturbance generally are not used by this species, and riparian corridors lacking open ruderal or herbaceous vegetation along the edges of the corridors or with development up to the corridor edge often are avoided as well. This species breeds in very low numbers along the lower reaches of South Bay streams, such as Coyote Creek, being somewhat more common in the upper reaches of the cottonwood/willow-dominated zone. The riparian woodland habitat on the project site provides at least moderately suitable breeding conditions for up to one pair of yellow warblers, and this species is known to breed in small numbers along Coyote Creek downstream from Highway 237. Yellow warblers are also an abundant migrant throughout the Santa Clara Valley during the spring and fall.

San Francisco Common Yellowthroat (*Geothlypis trichas sinuosa*). Federal Listing Status: None; State Listing Status: Species of Special Concern. The San Francisco common yellowthroat inhabits emergent vegetation and breeds in fresh and brackish marshes and moist floodplain vegetation around the San Francisco Bay. Common yellowthroat uses small and isolated patches of habitat as long as groundwater is close enough to the surface to encourage the establishment of dense stands of rushes, cattails, willows, and other emergent vegetation (Nur et al. 1997, Gardali and Evens 2008). Ideal habitat, however, has extensive, thick riparian, marsh, or herbaceous floodplain vegetation in perpetually moist areas, where populations of brown-headed cowbirds are low (Menges 1998). San Francisco common yellowthroat breeds primarily in fresh and brackish marshes, although it nests in salt marsh habitats that support tall vegetation (Guzy and Ritchison 1999). This subspecies builds open-cup nests, low in the vegetation, and nests from mid-March through late July (Guzy and Ritchison 1999, Gardali and Evens 2008).

The San Francisco common yellowthroat is one of the approximately 12 subspecies of common yellowthroat recognized in North America, two of which occur in the project vicinity. Because subspecies cannot be reliably distinguished in the field, determination of the presence of San Francisco common yellowthroat can be achieved only by locating breeding birds in the breeding range known for this subspecies. Common yellowthroats breeding along the edge of the Bay and in riparian and wetland habitats away from the Bay from the Milpitas/northern San Jose/Santa Clara/Los Gatos area northward are considered San Francisco common yellowthroats, while those breeding from southern San Jose southward are of the more widespread subspecies *arizela*. The demarcation between the two subspecies apparently occurs somewhere in the mid-San Jose area (Grinnell and Miller 1944), and although those breeding in the southern part of the Project Area are certainly *arizela*, yellowthroats breeding in such areas as along Silver Creek near Lake Cunningham could be either subspecies, or could be intergrades.

The San Francisco common yellowthroat is a fairly common breeder in fresh and brackish marshes, and in herbaceous riparian habitats, in the project vicinity. San Francisco common yellowthroats commonly breed in the overflow channel along Coyote Creek downstream of Highway 237 (Bousman 2007e), and up to one pair of this species could potentially breed in the seasonal wetland habitat within the project site.

White-tailed Kite (*Elanus leucurus*). Federal Listing Status: None; State Listing Status: Fully Protected. In California, white-tailed kites can be found in the Central Valley and along the coast, in grasslands, agricultural fields, cismontane woodlands, and other open habitats (Zeiner et al. 1990, Dunk 1995, Erichsen et al. 1996). White-tailed kites are year-round residents of the state, establishing nesting territories that encompass open areas with healthy prey populations, and snags, shrubs, trees, or other nesting substrates (Dunk 1995). Nonbreeding birds typically remain in the same area over the winter, although some movements do occur (Polite 1990). The presence of white-tailed kites is closely tied to the presence of prey species, particularly voles, and prey base may be the most important factor in determining habitat quality for white-tailed kites (Dunk and Cooper 1994, Skonieczny and Dunk 1997). Although the species recovered after population declines during the early 20th century, its populations may be exhibiting new declines as a result of recent increases in habitat loss and disturbance (Dunk 1995, Erichsen et al. 1996).

In the project vicinity, white-tailed kites are known to nest along the northern edge of Santa Clara County throughout the open areas edging the Bay, including areas along Coyote Creek downstream from the project site (Bousman 2007f). Suitable foraging habitat for the white-tailed kite is present in annual grassland habitats on the project site and the two large cottonwoods on the site provide suitable nesting habitat for this species, although no white-tailed kite nests were observed in these trees or within 300 feet of the project site during focused surveys conducted in July 2016.

4.3 Sensitive and Regulated Habitats

CDFW Sensitive Habitats. The CDFW ranks certain rare or threatened plant communities, such as wetlands, meadows, and riparian forest and scrub, as 'threatened' or 'very threatened'. These communities are tracked in

the CNDDB. Impacts on CDFW sensitive plant communities, or any such community identified in local or regional plans, policies, and regulations, must be considered and evaluated under the CEQA (California Code of Regulations: Title 14, Div. 6, Chap. 3, Appendix G).

A query of sensitive habitats in Rarefind (CNDDB 2016) was performed for the *Milpitas, California* 7.5-minute USGS quadrangle and surrounding eight quadrangles. Based on this query, Northern Coastal Salt Marsh and Sycamore Alluvial Woodland are the only sensitive communities occurring in the project vicinity; however, neither habitat type is present on the project site because the key indicator plant species do not occur on the site. The closest mapped record of Northern Coastal Salt Marsh in the CNDDB is located approximately 2 miles north of the project site in downstream reaches of Coyote Creek (Figure 3). The closest mapped record of Sycamore Alluvial Woodland in the CNDDB is located approximately 9-miles northeast of the project site near San Antonio Reservoir (Figure 3).

CDFW maintains a list of vegetation alliances and associations within the state of California (California Department of Fish and Game 2010). This list includes global (G) and state (S) rarity ranks for associations and alliances. Alliances and associations currently ranked as S1-S3 are considered highly imperiled. A crosswalk of the identified habitats on the site is conducted here to identify habitats that conform to the CDFW alliances and associations. The California annual grassland would be consistent with non-native grassland according to Holland (1986), which is a non-sensitive habitat. The seasonal wetland would be consistent with poison hemlock and fennel patches (Sawyer, Keeler-Wolf, and Evans 2009) or non-native grassland in Holland (1986) and is not a considered a sensitive habitat. The mixed riparian forest and woodland is consistent with the Central Coast cottonwood-sycamore riparian forest in Holland (1986) and the Fremont cottonwood forest (Sawyer, Keeler-Wolf, and Evans 2009), which is a S3.2 ranked alliance. Thus, the mixed riparian forest is considered imperiled and a sensitive habitat type. Urban-suburban habitat has exceptionally little vegetation and does not conform to a CDFW vegetation category nor does it have an associated rarity rank.

Section 1602 of the Fish and Game Code establishes jurisdiction over the bed, channel, or bank of any river, stream, or lake. Riparian habitats along stream and drainage corridors are typically claimed by CDFW because they offer unique resources for wildlife. In accordance with the CDFW guidance we determined that riparian habitat is present in the project site. The CDFW riparian jurisdiction on the project site goes up to the inboard top of levee.

5.1 CEQA Overview

The CEQA and the State CEQA Guidelines provide guidance in evaluating impacts of projects on biological resources and determining which impacts will be significant. The Act defines "significant effect on the environment" as "a substantial adverse change in the physical conditions which exist in the area affected by the proposed project." Under State CEQA Guidelines section 15065, a project's effects on biotic resources are deemed significant where the project would:

- A. "substantially reduce the habitat of a fish or wildlife species"
- B. "cause a fish or wildlife population to drop below self-sustaining levels"
- C. "threaten to eliminate a plant or animal community"
- D. "reduce the number or restrict the range of a rare or endangered plant or animal"

In addition to the section 15065 criteria that trigger mandatory findings of significance, Appendix G of State CEQA Guidelines provides a checklist of other potential impacts to consider when analyzing the significance of project effects. The impacts listed in Appendix G may or may not be significant, depending on the level of the impact. For biological resources, these impacts include whether the project would:

- A. "have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service"
- B. "have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service"
- C. "have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act"
- D. "interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites"
- E. "conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance"
- F. "conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan"

5.1.1 Santa Clara Valley Habitat Plan

As described in Section 2.3.4, the project site is entirely inside the VHP permit area and in Fee Zone A (Ranchlands and Natural Lands) (SCVHA 2016). The proposed project is consistent with a "covered project" under the VHP as determined by use of the Coverage Screening Form (ICF International 2012) because the site is partially located in an undeveloped location in Area 1-Private Development Covered lands (SCVHA 2016). Based on the mapped VHP Private Development Areas, the project site is divided between Area 1 and Area 4 (SCVHA 2016). The Area 1, Private Development Covered area, is located from the top of levee and inboard toward Coyote Creek. The remainder of the project site outboard of the levee top is located in Area 4, Urban Development area. The project site is located near Coyote Creek, which is mapped as a Category 1 streams have an associated 150-foot setback. There is no serpentine habitat on the project site, and therefore, fees in lieu of mitigation for impacts to this habitat types would not be required. However, fees for impacts on burrowing owl habitat will apply because the VHP maps habitat on the site as occupied burrowing owl habitat and fees for impacts on wetlands may apply. Because the proposed project entails new development, nitrogen deposition fees may apply.

This impact assessment summarizes the applicable fees and conservation measures that are required by the VHP. The impact analysis below provides the VHP conditions that apply to the proposed project. Chapter 6 of the VHP includes conditions on all covered activities. Condition 1 pertains to all covered activities. The rest of the conditions are split by activity type, natural community, and species. Table 3 below includes all conditions of the VHP and their applicability to the project. Following this table is an expanded description of specific Conditions applicable to the project site.

Condition	Project Applicability and Justification
Conditions on all covered activities	
Condition 1. Avoid direct impacts on legally protected plant and wildlife species	Applicable. Applies to all projects.
Conditions on specific covered activities	
Condition 2. Incorporate urban-reserve system interface design requirements	Not applicable. Project is outside urban-reserve areas.
Condition 3. Maintain hydrologic conditions and protect water quality	Applicable. Applies to all projects.
Condition 4. Avoidance and minimization for in-stream projects	Applicable. Project is within stream banks and riparian corridor.
Condition 5. Avoidance and minimization measures for in-stream operations and maintenance	Not applicable. Project is not for operations and maintenance.
Condition 6. Design and construction requirements for covered transportation projects	Not applicable. Project is not for transportation.
Condition 7. Rural development design and construction requirements	Not applicable. Project is not in rural area.

 Table 3.
 Santa Clara Valley Habitat Plan Conditions and Project Applicability

Condition 8. Implement avoidance and minimization measures for rural road maintenance	Not applicable . Project is not for rural road work.			
Condition 9. Prepare and implement a recreation plan	Not applicable. Project is not a reserve.			
Condition 10. Fuel buffer	Not applicable. Project would not construct a dwelling or structure.			
Conditions to minimize impacts on natural communities				
Condition 11. Stream and riparian setbacks	Not applicable . Outfall construction projects are exempt.			
Condition 12. Wetland and pond avoidance and minimization	Applicable . Project would impact wetlands.			
Condition 13. Serpentine and associated covered species avoidance and minimization	Not applicable . No serpentine habitat exists on the site.			
Condition 14. Valley oak and blue oak woodland avoidance and minimization	Not applicable. No valley or blue oak woodland exists on the site.			
Conditions to minimize impacts on specific covered species				
Conditions to minimize impacts on specific covered species				
Conditions to minimize impacts on specific covered species Condition 15. Western burrowing owl	Applicable. Site is within a mapped occupied habitat area and fee zone for this species.			
Conditions to minimize impacts on specific covered species Condition 15. Western burrowing owl Condition 16. Least Bell's vireo	Applicable. Site is within a mapped occupied habitat area and fee zone for this species. Not applicable. Absent from site and no suitable habitat occurs.			
Conditions to minimize impacts on specific covered species Condition 15. Western burrowing owl Condition 16. Least Bell's vireo Condition 17. Tricolored blackbird	 Applicable. Site is within a mapped occupied habitat area and fee zone for this species. Not applicable. Absent from site and no suitable habitat occurs. Applicable. Site is within 250 feet of a mapped survey area for this species. 			
Conditions to minimize impacts on specific covered species Condition 15. Western burrowing owl Condition 16. Least Bell's vireo Condition 17. Tricolored blackbird Condition 18. San Joaquin kit fox	 Applicable. Site is within a mapped occupied habitat area and fee zone for this species. Not applicable. Absent from site and no suitable habitat occurs. Applicable. Site is within 250 feet of a mapped survey area for this species. Not applicable. Absent from project site and no suitable habitat present. 			
Conditions to minimize impacts on specific covered species Condition 15. Western burrowing owl Condition 16. Least Bell's vireo Condition 17. Tricolored blackbird Condition 18. San Joaquin kit fox Condition 19. Plant salvage when impacts are unavoidable	 Applicable. Site is within a mapped occupied habitat area and fee zone for this species. Not applicable. Absent from site and no suitable habitat occurs. Applicable. Site is within 250 feet of a mapped survey area for this species. Not applicable. Absent from project site and no suitable habitat present. Not applicable. No covered plants occur. 			

5.1.1.1 Condition 1- Avoid Direct Impacts on Legally Protected Plant and Wildlife Species

Contra Costa goldfields (*Lasthenia conjugens*) is a protected plant species under federal law. If this species is encountered on the project site, coordination with the U.S. Fish and Wildlife Service is required. Several wildlife species that occur in the proposed project vicinity are protected under state and federal laws. Some of these animal species are listed as fully protected under the California Fish and Game Code (e.g., American peregrine falcon and white-tailed kite), and eagles are protected under the Bald and Golden Eagle Protection Act. Further, all native bird species and their nests are protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code. Actions conducted under the VHP must comply with the provisions of the MBTA and California Fish and Game Code.

5.1.1.2 Condition 3. Maintain Hydrologic Conditions and Protect Water Quality

Condition 3 applies to all projects and identifies a set of programmatic best management practices (BMPs), performance standards, and control measures to minimize increases of peak discharge of storm drain waters

and to reduce runoff of pollutants to protect water quality, including during project construction. These requirements include pre-construction, construction site, and post-construction actions. Pre-construction conditions are site design planning approaches that protect water quality by preventing and reducing the adverse impacts of storm drain water pollutants and increases in peak runoff rate and volume. They include hydrologic source control measures that focus on the protection of natural resources. Construction site conditions include source and treatment control measure to prevent pollutants from leaving the construction site and minimizing site erosion and local stream sedimentation during construction. Post-construction conditions include measures for storm drain water treatment and flow control.

5.1.1.3 Condition 4 – Avoidance and Minimization for In-Stream Projects

Condition 4 applies to in-stream projects and identifies design requirements and construction practices to minimize impacts on riparian and aquatic habitat (See Table 6-2 of the VHP). In-stream projects are defined as work in the streambed, banks, and riparian corridor adjacent to a stream. In-stream projects must be designed to minimize impacts on stream morphology, habitats, and flow conditions. The design requirements and construction avoidance and minimization measures are required unless the measures are not appropriate for the activity or field data from the site suggests that the measures would not benefit wildlife or reduce impacts in to natural communities. The avoidance and minimization measures address construction staging, dewatering, sediment management, vegetation management, bank protection, drainage, trail construction, and ground disturbance.

5.1.1.4 Condition 12 - Wetland and Pond Avoidance and Minimization

Condition 12 applies to covered projects that would directly or indirectly affect wetlands or ponds. The purpose of Condition 12 is to minimize impacts on wetlands and ponds and avoid impacts on high quality wetlands and ponds by prescribing vegetated storm drain water filtration features, proper disposal of cleaning materials, and other requirements (see pages 6-55 to 6-68 of the VHP). Project proponents are required to pay a wetland fee for impacts on wetlands and ponds to cover the cost of restoration or creation of aquatic land cover types required by the VHP. Covered activities can avoid paying the wetland fee if they avoid impacts on wetlands.

5.1.1.5 Condition 15 - Western Burrowing Owl

Condition 15 requires the implementation of measures to avoid and minimize direct impacts on burrowing owls, including pre-construction surveys, establishment of 250-foot non-disturbance buffers around active nests during the breeding season (February 1 through August 31), establishment of 250-foot non-disturbance buffers around occupied burrows during the nonbreeding season, and construction monitoring. Pre-construction surveys for burrowing owls are required by the VHP in areas mapped as breeding habitat, which include the project site. As mentioned above, additional fees in-lieu of providing compensatory mitigation are imposed for VHP covered projects that impact burrowing owls. Because the project site includes VHP-mapped occupied habitat for burrowing owls and is located within the VHP Burrowing Owl Fee zone, a specialty fee for impacts on habitat for this species would apply.

5.1.1.6 Condition 17 – Tricolored Blackbird

Condition 17 calls for surveys of project areas within 250 feet of any riparian, coastal and valley freshwater marsh (perennial wetlands), or pond land cover types for potential tricolored blackbird nesting substrate. A qualified biologist is required to conduct a field investigation to identify and map potential nesting substrate. If potential nesting substrate is found, the project proponent may revise the project to avoid all areas within a 250-foot buffer around the potential nesting habitat. If the project proponent chooses not to avoid potential nesting habitat and the 250-foot buffer, additional nesting surveys are required. Avoidance and minimization measures are required for covered activities in tricolored blackbird nesting habitat that is currently occupied or has been used in the past 5 years. Although it is our opinion that tricolored blackbirds are absent from the project site and all areas within 250 feet of the site, based on the species' known distribution, we expect that the project applicant will need to conduct surveys per this condition for VHP compliance purposes.

5.2 Less-than-Significant Impacts

5.2.1 Impacts on Non-Sensitive Habitats and Associated Common Plant and Animal Communities

Construction activities related to the development of the storm drain outfall site with an excavated trench, sending and receiving pits, new outfall pipe placement, and construction access would result in permanent and temporary impacts to California annual grassland and urban/suburban habitats (Figure 2, Table 4). Permanent impacts would result from the conversion of less than 0.01 acre of California annual grassland to rock slope protection. Temporary impacts to 0.24 acre of California annual grassland and to 0.05 acre of Urban/suburban habitats would occur from trenching, pit installation, and access. Impacts on these habitats during construction would temporarily reduce the extent of ruderal grassy vegetation on the project site and would result in a reduction in abundance of some of the common plant and wildlife species that use the site. However, these habitat types are abundant and widespread regionally, and none of these habitats on the site represent particularly sensitive, valuable (from the perspective of providing important plant or wildlife habitat), or exemplary occurrences of these habitat types.

The very small areas of California annual grassland to be impacted by the current project will occur in areas that have been subject to disturbance and fragmentation in the past, such that these areas are not likely to support native vegetation to such an extent that a sensitive vegetation alliance or special-status plant would be considered to occur in this location (Figure 2). Similarly, although the trenching, pit excavation, and construction access would temporarily be impacted, the existing habitat does not support high quality native vegetation or provide high-quality habitat for wildlife species. Therefore, impacts on these habitats are considered less than significant. Further, because the number of individuals of any common plant or animal species within these habitats, and the proportion of these species' regional populations that could be disturbed, is very small, the project's impacts would not substantially reduce regional populations of these species. Thus, these impacts do not meet the CEQA standard of having a *substantial* adverse effect, and would not be considered significant under CEQA.

Habitat	Permanent Impact (acres)	Temporary Impact (acres)	Permanent Impact outside Project Site (acres)
California annual grassland	<0.01	0.24	0.00
Mixed riparian forest and woodland	0.11	0.00	0.05
Seasonal wetlands	0.01	0.01	0.00
Urban/Suburban	0.00	0.05	0.00
Total	0.12	0.31	0.05

Table 4. Proposed Project Impacts

The undeveloped habitats within the project footprint provide suitable nesting habitat for native bird species. Birds may also nest in undeveloped habitats outside the project footprint in areas adjacent to the project site, and thus, implementation of the project has the potential to result in the direct loss or indirect disturbance of nests, including eggs and young, of common birds. Such impacts may occur because of the removal of tree and other vegetation or the disturbance of individuals nesting within or immediately adjacent to the project footprint. However, the habitats within the project site represent a very small proportion of the habitats that support these species regionally and are available in the vicinity. Due to the loss of two large trees, fewer pairs of birds are expected to nest and forage on the site following project construction. However, the decline in bird abundance resulting from the project, if any, would be very low based on the limited extent of the project footprint and the abundance of similar large trees in the project vicinity. Therefore, project impacts on nesting and foraging birds that use the site, due to habitat impacts or disturbance of nesting birds, would not rise to the CEQA standard of having a *substantial* adverse effect, and these impacts would not constitute a significant impact on these species or their habitats under CEQA. However, all native bird species are protected from direct take by federal and state statutes (see Section 5.1, Regulatory Overview for Nesting Birds).

5.2.2 Impacts on Water Quality

Increased hardscape can lead to an increase in runoff and a decrease in infiltration and groundwater recharge. Because the outfall structure is a discharge pipe for storm drain water, possible introduction of anthropogenic contaminants such as petrochemicals, herbicides, and fertilizers into regulated habitats could occur. Other project activities such as trenching, tree and plant removal, and other soil disturbances can increase the potential for soil erosion on site. These construction activities could increase the amount of soils and sediments entering waterways, thereby negatively influencing aquatic habitats and water quality. Any contamination of the seasonal wetland features has the potential to migrate into Coyote Creek as a result of the proximity to the low flow channel and existing sloped topography. As a result, the direct impacts on the seasonal wetlands would constitute wetland loss and the indirect impacts would constitute substantial adverse effects on water quality. These adverse effects on water quality could eventually have an indirect impact on aquatic wildlife species occurring in Coyote Creek. However, as described in the project description, during construction the project site would be physically separated from Coyote creek by using fiber rolls, staking, and silt fencing to reduce water quality impacts as required by the NPDES Construction General Permit. The project will conform with all relevant VHP conditions to protect water quality, including Conditions 3, 4, and 12. VHP Condition 3 requires implementation of design phase, construction phase, and post-construction phase measures, including programmatic BMPs, performance standards, and control measures, to minimize increases of peak discharge of storm drain water and to reduce runoff of pollutants to protect water quality, including during project construction. VHP Condition 4 requires design phase and construction practices to minimize impacts on riparian and aquatic habitats such that the project would avoid or minimize adverse impacts on stream morphology, aquatic and riparian habitat, and flow conditions. Compliance with Condition 4 addresses construction staging, dewatering, sediment management, vegetation management, bank protection, drainage, trail construction, and ground disturbance. VHP Condition 12 requires the implementation of design phase and construction phase measures to avoid and minimize impacts on wetlands and ponds, including erosion control measures, fencing of avoided wetlands during construction, establishment of buffers between wetlands and refueling areas, and measures to minimize the spread of invasive species. Additionally, the neighboring development of the Cilker Property that will generate the runoff to be discharged through this outfall would comply with the Regional MRP for post construction storm water treatment, and as such, deleterious contributions of this outfall to water quality in Coyote Creek would not be substantial, and this impact would be less than significant.

5.2.3 Impacts from Invasive Weeds

The project could potentially have a substantial adverse effect due to the spread of noxious and invasive weeds. The introduction or spread of noxious and invasive species is a special concern for native plant and animals. Noxious and invasive weeds pose a threat to the natural processes of plant community succession, fire frequency, biological diversity, and species composition. Noxious and invasive weeds can affect the persistence of some populations of special-status species by replacing the foraging base, altering habitat structure, or excluding a species by vegetative growth. Invasive weeds occur in all habitat types and can be difficult to eradicate. Many non-native, invasive plant species produce seeds that germinate readily following disturbance. Further, disturbed areas are highly susceptible to colonization by non-native, invasive species that occur locally, or whose propagules are brought in by personnel, vehicles, and other equipment.

A local propagule source of one weed species with "high" impact ratings (Cal-IPC 2016) was observed in the project site vicinity as well as a few plants are currently present in the site. Perennial pepperweed (*Lepidum latifolium*) is present in small quantities at the site and is present in larger quantities in the immediate project vicinity, both on the inboard levee side and outboard levee side. This species could potentially invade and/or spread onto additional areas of the project site. Introduction or spread of invasive weeds could degrade sensitive riparian and wetland habitats, and/or reduce or eliminate their ability to support special-status plant or wildlife species in and downstream of the project site, and as such would be a significant impact. Also, perennial pepperweed from the project site could be spread to other project sites on equipment. However, the project proposes to implement the following BMPs to prevent such introduction or spread of existing weeds.

- During construction of the proposed project, all straw materials used on site will be weed-free rice (or similar material acceptable to the City) straw, and all gravel and fill material will be certified weed free to the satisfaction of the City and any deviation from this will be approved by the City.
- During construction of the proposed project, vehicles and all equipment will be washed (including wheels, undercarriages, and bumpers) before and after entering the proposed project site. Vehicles will be cleaned at existing construction yards or legally operating car washes.
- Following construction of the proposed project, a standard erosion control seed mix (acceptable to the City) from a local source will be planted within the temporary impact zones on any disturbed ground that will not be under hardscape, landscaped, or maintained. This will minimize the potential for the germination of the majority of seeds from non-native, invasive plant species.

With implementation of these BMPs, the project will have a less than significant impact on spread or introduction of invasive weeds on sensitive habitats and species within the project region.

5.2.4 Impacts on the Western Pond Turtle

Suitable habitat for the western pond turtle, a California species of special concern, consists of ponds or instream pools (i.e., slack water environments) with available basking sites, nearby upland areas with clay or silty soils for nesting, and shallow aquatic habitat with emergent vegetation and invertebrate prey for juveniles (Jennings and Hayes 1994). Although the reach of Coyote Creek located adjacent to the project site provides suitable aquatic habitat for western pond turtles, populations along the lower reaches of this creek are apparently very low due to the long duration of urban impacts in this part of the Santa Clara Valley. In addition, no suitable aquatic habitat is present on the project site. Therefore, the project would not result in the loss of aquatic foraging or dispersal habitat. Furthermore, due to the hard-packed nature of soils on most of the project site, the very limited extent of the project area, and the very low numbers of western pond turtles in the adjacent reach of the creek, we do not expect this species to nest on the project site. Approximately 0.36 ac of potentially suitable dispersal habitat is present on the project site, and a temporary loss of this habitat will occur during project construction; however, it is unlikely that dispersing individuals or nests would be present within the project impact area due to the limited extent of habitat within the project site and the very low numbers of individuals in the project vicinity. No direct loss of individual western pond turtles is expected to occur as a result of the project. Further, suitable nesting and upland dispersal habitat is abundant in the areas surrounding the project site, and the majority of the site will continue to function as suitable nesting and upland dispersal habitat for this species after the project is constructed. Therefore, potential project impacts on western pond turtle do not meet the CEQA standard of having a substantial adverse effect and would not be considered significant under CEQA.

5.2.5 Impacts on Nesting White-tailed Kite, Loggerhead Shrike, Yellow Warbler, and San Francisco Common Yellowthroat

Implementation of the proposed project would result in the permanent loss of 0.11 acre of potential riparian nesting and foraging habitat for the yellow warbler, white-tailed kite, and loggerhead shrike; 0.01 acre of seasonal

wetland nesting and foraging habitat for the San Francisco common yellowthroat; and <0.01 acre of grassland foraging habitat for the loggerhead shrike and white-tailed kite, as well as temporary impacts to limited areas of grassland and seasonal wetland that may be used by these species.

Proposed construction activities could result in the destruction or abandonment of active nests of these species, should they nest on the site during project implementation. However, no more than one pair each of these species is expected to nest on or immediately adjacent to the project site, if these species are present as breeders at all, and thus the loss of individuals potentially resulting from project activities would represent a very small fraction of the regional populations of these species. Further, the annual grassland, seasonal wetland, and riparian woodland habitats within the project site represent a very small proportion of the habitats that support these species regionally.

Therefore, neither the potential loss of individuals of these species, nor the loss of potential nesting habitat for them would rise to the CEQA standard of having a substantial adverse effect, and these impacts would thus not constitute a significant impact on these species or their habitats under the CEQA. However, all native bird species are protected from direct take by federal and state statutes (see Section 5.1, *Regulatory Overview for Nesting Birds*), and compliance with VHP Condition 1 necessitates the implementation of measures to ensure that no take of these species (e.g., disturbance of active nests) occurs.

5.3 Impacts Found to be Less than Significant with Mitigation

5.3.1 Impacts on Waters of U.S./State

Aquatic habitats and wetlands control overall water quality, watershed functions, and provide habitat for plants and animals. Aquatic habitats, such wetlands, facilitate groundwater recharge, and control water quality and watershed functions. Contamination of these habitats with pollutants and sediment can adversely affect ecosystem health and reduce habitat quality for plant and animal species. Loss of these habitats may adversely affect plant and wildlife communities dependent upon water sources and these valuable habitats.

No technical wetland delineation was conducted at the project site during the 2016 survey. However, prior reconnaissance surveys conducted in March 2016, identified aquatic and coastal valley freshwater marsh wetland habitats at the bank toe of slope. These identified areas were used to help define the current project work area and limits of rock slope protection such that that aquatic habitat at the low-flow channel of Coyote Creek and adjoining perennial marsh wetland is avoided by the project. Approximately 0.02 acres of regulated seasonal wetlands habitat occurs in the project site (Figure 2; Table 1). The project area has a more xeric wetland type, a seasonal wetland feature that occurs inland from the edge of the perennial coastal and valley freshwater marsh and the low-flow channel of Coyote Creek that are located outside the project site. Although the seasonal wetland does abut the stream where coastal and valley freshwater marsh and Coyote Creek occur, the seasonal wetland provides medium to low-quality habitat as a result of being dominated by non-native species like poison hemlock. The seasonal wetland habitat extends outside the project site into the adjoining areas downstream.

The project would permanently impact a seasonal wetland that lines the edge of the coastal and valley freshwater marsh outside the project site. Areas in the aquatic habitat at Coyote Creek outside the project site, the adjoining perennial marsh habitat directly outside the project site, and the seasonal wetland habitat in the project site are likely considered jurisdictional habitats by various state and federal resource/regulatory agencies. Project implementation could result in potentially significant direct impacts to seasonal wetlands. Indirect impacts to water quality in the seasonal wetlands on site and the off site perennial marsh and aquatic habitat could potentially occur through project implementation.

The proposed project would have direct permanent impacts on 0.01 acre of seasonal wetland features from the installation of hardscape as rock slope protection armoring the outfall pipe opening and temporary impacts to 0.01 acre from trenching and construction access (Figure 2; Table 4). The seasonal wetlands are potentially regulated habitats and are considered waters of the U.S./State. Though the wetlands on site are not of high quality, and the project will conform with Conditions 3, 4, and 12 of the VHP, permanent and temporary direct impacts on the seasonal wetland would be considered significant without mitigation because of the limited distribution of wetland habitats. Implementation of Mitigation Measure 1 will avoid indirect impacts on Coyote Creek and mitigate water quality impacts to a less-than-significant level.

Mitigation Measure 1. Compliance with VHP and Wetland Impact Fee Payment Implementation of Conditions 3, 4, and 12 (Chapter 6 of the Final VHP), as well as payment of wetland fees for impacts will reduce impacts on waters of the U.S./State to a less-than-significant level.

5.3.2 Impacts to Mixed Riparian Forest from Tree Removal

The existing trees on site are a mixture of native species and include Fremont cottonwood, buckeye, and coast live oaks. Because riparian communities are considered sensitive habitats and provide a wide range of biological functions for wildlife, such as nesting habitat for birds, any tree loss in riparian habitats may be considered significant. The removal of riparian trees at this site would have a significant impact on wildlife because the trees are mature native species in an extensive riparian setting, and because riparian habitat along lower Coyote Creek is known to support high densities of nesting, wintering, and migrant birds. Because riparian tree removal occurs in a sensitive habitat with important ecological values for common and rare wildlife species, project-specific impacts to the mixed riparian forest and woodland habitat would be significant if not mitigated.

Project implementation would result in permanent impacts to approximately 0.11 acre of existing mixed riparian forest and woodland in the project site from project trenching and installation of a new storm drain outfall (Figure 2; Table 4). The project would remove numerous trees that have root systems within the proposed trench excavation area. Tree loss resulting from project implementation was estimated conservatively by counting the number of trees that would be impacted by trenching. Any tree where trenching would occur to roots located in the root crown directly underneath the tree canopy were considered to be severely impacted. In this manner, all trees with trenching within the crown limits were determined to be lost trees that would be removed by the project. Therefore, six mature trees were determined to be lost as a result of trenching activities.

This includes two Fremont cottonwoods, one buckeye, and three coast live oak trees. In addition, nine sapling trees were also determined to be lost, including two Fremont cottonwood, two buckeye, and five coast live oak saplings.

Based on canopy extent from the loss of trees, the entire area of mixed riparian woodland (0.11 acre) is considered permanently impacted as well as canopy area outside of the project site (Figure 2; Table 4). Tree canopy outside the project site was added in the permanent impact area because some larger trees would be trenched through such that the entire tree, including canopy outside the project site, was considered impacted and lost. Loss of additional tree canopy outside the project site would result in the additional loss of 0.05 acre (Figure 2; Table 4). Project specific impacts to 0.16 acre of mixed riparian forest and woodland habitat would be significant if not mitigated.

Applicable conditions and BMPs required by the VHP would be implemented for impacts to riparian habitats resulting from the project. These include Condition 3 (Maintain Hydrologic Conditions and Protect Water Quality) and Condition 4 (Stream Avoidance and Minimization for In-stream Projects). In particular, the proposed project complies with the following applicable impact avoidance conditions and design criteria:

- Removal of riparian vegetation and trees will be limited to the minimum extent required to construct the project,
- The project will comply with all conditions required by the project-specific LSAA issued by CDFW, and
- Seed mixtures used for revegetation of the impacted riparian habitat will not contain invasive non-native species but will be composed of native or sterile non-native species. If sterile non-native mixtures must be used for temporary erosion control, native seed mixtures will be used in subsequent treatments to provide long-term erosion control and prevent colonization by invasive non-native species.

Mitigation for direct impacts to mixed riparian forest and woodland habitat is required to remain consistent with the conditions and recommendation of the VHP. With the implementation of mitigation measure 1 above (Implementing VHP Conditions 3, 4, and 12), the following mitigation measure, and the measures described below in Section 5 to avoid direct impacts to nesting birds, the significance of these impacts would be reduced to a less than significant level.

Mitigation Measure 2: VHP Fee Payment. An impact fee specific to the riparian habitat impacts will be calculated based on the permanent and temporary riparian habitat impacts from the proposed project at on site and off site canopy impact area. Compensatory mitigation for the permanent impacts to approximately 0.11 acres on site and 0.05 acres off site will be provided for a total of 0.16 acres through payment of impact fees per the VHP.
5.3.3 Impacts on the Burrowing Owl

California annual grassland habitats in the project vicinity that support California ground squirrels provide potential nesting, wintering, and foraging habitat for burrowing owls. Although no ground squirrel burrows were observed on the project site during focused surveys conducted in July 2016, numerous ground squirrel burrows were observed within 250 feet of the project site, in grassland habitats located along the levee slopes, and squirrels in the area could excavate new burrows within the project site in the future. If active burrowing owl nests are present on the project site at the time of construction, construction-related disturbance could result in injury or mortality of an owl. In addition, construction-related disturbance to a burrowing nest in the surrounding areas could lead to the incidental loss of fertile eggs or nestlings or otherwise lead to nest abandonment. Even if burrowing owls are not breeding on the site, construction could result in injury or mortality of individual owls if construction activities were to fill or compact an occupied burrow. The project would also result in permanent impacts to <0.01 acre and temporary impacts to 0.24 acre of annual grasslands that provide potential nesting, wintering, and foraging habitat for burrowing owls, and the entire project site is mapped by the VHP as occupied burrowing owl habitat and within the VHP Burrowing Owl Fee zone. However, the removal of 0.16 acres of riparian woodland habitat and the implementation of the erosion control measures described above in Section 4.3.3 would result in an equivalent increase in annual grassland habitats, potentially suitable for burrowing owl nesting, wintering, and foraging, within the project site. Therefore, the project is expected to result in a temporary loss of 0.24 acres and a potential increase of 0.16 acres of suitable habitat for burrowing owls. In addition, the project will result in temporary and permanent impacts on up to 0.43 acres of VHP-mapped occupied burrowing owl habitat, including developed roads and riparian woodlands within the site.

Given the regional rarity of burrowing owls, and recent population declines in the Bay Area, any loss of burrowing owls, any activities resulting in the destruction of occupied burrowing owl burrows, or the loss of occupied burrowing owl habitat would substantially impact the species, a significant impact under CEQA. Implementation of the following mitigation measures will reduce impacts on the burrowing owl to a less-than-significant level.

Mitigation Measure BIO-4a: Pre-construction Surveys for Burrowing Owls. Prior to any ground disturbance related to covered activities, a qualified biologist will conduct preconstruction surveys in all suitable habitat areas as identified during habitat surveys. The purpose of the preconstruction surveys is to document the presence or absence of burrowing owls on the project site, particularly in areas within 250 feet of construction activity.

To maximize the likelihood of detecting owls, the preconstruction survey will last a minimum of three hours. The survey will begin 1 hour before sunrise and continue until 2 hours after sunrise (3 hours total) or begin 2 hours before sunset and continue until 1 hour after sunset. Additional time may be required for large project sites. A minimum of two surveys will be conducted (if owls are detected on the first survey, a second survey is not needed). All owls observed will be counted and their location will be mapped.

Surveys will conclude no more than 2 calendar days prior to construction. Therefore, the project proponent must begin surveys no more than 4 days prior to construction (2 days of surveying plus up to 2 days between surveys and construction). To avoid last minute changes in schedule or contracting that may occur if burrowing owls are found, the project proponent may also conduct a preliminary survey up to 14 days before construction. This preliminary survey may count as the first of the two required surveys as long as the second survey concludes no more than 2 calendar days in advance of construction.

Mitigation Measure BIO-4b: Avoidance Measures for Burrowing Owls.

<u>Breeding Season</u>. If evidence of western burrowing owls is found during the breeding season (February 1–August 31), the project proponent will avoid all nest sites that could be disturbed by project construction during the remainder of the breeding season or while the nest is occupied by adults or young (occupation includes individuals or family groups foraging on or near the site following fledging). Avoidance will include establishment of a 250-foot non-disturbance buffer zone around nests. Construction may occur outside of the 250-foot non-disturbance buffer zone. Construction may occur inside of the 250-foot non-disturbance buffer during the breeding season if:

- the nest is not disturbed, and
- the project proponent develops an avoidance, minimization, and monitoring plan that will be reviewed by the Implementing Entity and the Wildlife Agencies prior to project construction based on the following criteria.
 - The Implementing Entity and the Wildlife Agencies approves of the avoidance and minimization plan provided by the project applicant.
 - A qualified biologist monitors the owls for at least 3 days prior to construction to determine baseline nesting and foraging behavior (i.e., behavior without construction).
 - The same qualified biologist monitors the owls during construction and finds no change in owl nesting and foraging behavior in response to construction activities.
 - If there is any change in owl nesting and foraging behavior as a result of construction activities, these activities will cease within the 250-foot buffer. Construction cannot resume within the 250-foot buffer until the adults and juveniles from the occupied burrows have moved out of the project site.
 - If monitoring indicates that the nest is abandoned prior to the end of nesting season and the burrow is no longer in use by owls, the non- disturbance buffer zone may be removed. The biologist will excavate the burrow to prevent reoccupation after receiving approval from the Wildlife Agencies.

The Implementing Entity and the Wildlife Agencies have 21 calendar days to respond to a request from the project proponent to review the proposed construction monitoring plan. If these parties do not respond within 21 calendar days, it will be presumed that they concur with the proposal and work can commence.

<u>Non-Breeding Season</u>. During the non-breeding season (September 1–January 31), the project proponent will establish a 250-foot non-disturbance buffer around occupied burrows as determined by a qualified biologist. Construction activities outside of this 250-foot buffer are allowed. Construction activities within the non-disturbance buffer are allowed if the following criteria are met in order to prevent owls from abandoning important overwintering sites.

- A qualified biologist monitors the owls for at least 3 days prior to construction to determine baseline foraging behavior (i.e., behavior without construction).
- The same qualified biologist monitors the owls during construction and finds no change in owl foraging behavior in response to construction activities.
- If there is any change in owl nesting and foraging behavior as a result of construction activities, these activities will cease within the 250-foot buffer.
- If the owls are gone for at least one week, the project proponent may request approval from the Implementing Entity that a qualified biologist excavate usable burrows to prevent owls from reoccupying the site. After all usable burrows are excavated, the buffer zone will be removed and construction may continue.

Monitoring must continue as described above for the non-breeding season as long as the burrow remains active.

Mitigation Measure BIO-4c: Construction Monitoring for Burrowing Owls. Based on the avoidance, minimization, and monitoring plan developed (as required in the above section), during construction, the non-disturbance buffer zones will be established and maintained if applicable. A qualified biologist will monitor the site consistent with the requirements described above to ensure that buffers are enforced and owls are not disturbed. The biological monitor will also conduct training of construction personnel on the avoidance procedures, buffer zones, and protocols in the event that a burrowing owl flies into an active construction zone.

Because the project site is mapped as burrowing owl habitat by the VHP, the project proponent will be required to pay a burrowing owl fee. The fee will help fund the VHP conservation program, including requirements for the use of impact fees toward both preservation and management of 5,300 acres of occupied or potential burrowing owl nesting habitat, and an aggressive suite of measures aimed at reversing the declining trend of the burrowing owl population in Santa Clara County. Contributions to the VHP conservation program will further mitigate potential project impacts on the western burrowing owl and its habitat.

5.4 Cumulative Impacts

Cumulative impacts arise due to the linking of impacts from past, current, and reasonably foreseeable future projects in the region. The proposed project, in combination with other projects in the area and other activities that impact the species and habitats that are affected by this project, could contribute to cumulative effects on special-status species and sensitive habitats. Other projects in the area include both development and maintenance projects (such as the neighboring Cilker Property project) that could adversely affect these species and habitats as well as restoration projects that will benefit these species.

Locally, the SCVWD's Stream Maintenance Program (SMP) involves maintenance activities in SCVWD flood control channels, creeks, and canals within jurisdictional waters of the U.S. The maintenance activities include, bank stabilization, sediment removal, minor in-channel maintenance activities, and mitigation projects. Implementation of the SMP BMPs will avoid or minimize impacts on sensitive habitats and special-status species associated with these habitats.

Many projects in the region that impact resources similar to those impacted by the proposed project will be covered activities under the VHP and will mitigate impacts on sensitive habitats and many special-status species through that program, which will require payment of fees for habitat restoration and conservation.

Further, the project would implement a number of BMPs and mitigation measures to reduce impacts on sensitive habitats, such as Coyote Creek, and to both common and special-status species, as described above. Thus, provided that this project successfully incorporates the mitigation measures described in this biological resources report, the project will not make a cumulatively considerable contribution to substantial cumulative effects on biological resources.

Section 6. Compliance with Additional Laws and Regulations Applicable to Biotic Resources of the Site

6.1 Regulatory Overview for Nesting Birds

Construction disturbance during the nesting season (February 1 through August 31, for most species) could result in the incidental loss of eggs or nestlings, either directly through the destruction or disturbance of active nests or indirectly by causing the abandonment of nests. This type of impact would not be significant under CEQA for the species that could potentially nest in the project site due to the local and regional abundances of these species and/or the low magnitude of the potential impact of the project on these species (i.e., the project is only expected to impact one or two individual pairs of these species, which is not a significant impact to their regional populations). However, VHP Condition 1 requires all actions conducted under the VHP to comply with the provisions of the MBTA and California Fish and Game Code. Thus, the project will implement the following measures to ensure that project activities comply with the MBTA and California Fish and Game Code:

Measure 1a. Avoidance. To the extent feasible, construction activities should be scheduled to avoid the nesting season. If construction activities are scheduled to take place outside the nesting season, all impacts to nesting birds protected under the MBTA and California Fish and Game Code will be avoided. The nesting season for most birds in Santa Clara County extends from February 1 through August 31.

Measure 1b. Pre-construction/Pre-disturbance Surveys. If it is not possible to schedule construction activities between September 1 and January 31, then pre-construction surveys for nesting birds should be conducted by a qualified ornithologist to ensure that no nests will be disturbed during project implementation. We recommend that these surveys be conducted no more than seven days prior to the initiation of construction activities. During this survey, the ornithologist will inspect all trees and other potential nesting habitats (e.g., shrubs, ruderal grasslands, and buildings) in and immediately adjacent to the impact areas for nests.

Measure 1c. Buffers. If an active nest is found sufficiently close to work areas to be disturbed by these activities, the ornithologist will determine the extent of a construction-free buffer zone to be established around the nest (typically 300 feet for raptors and 100 feet for other species), to ensure that no nests of species protected by the MBTA and California Fish and Game Code will be disturbed during project implementation.

Measure 1d. Inhibition of Nesting. If construction activities will not be initiated until after the start of the nesting season, all potential nesting substrates (e.g., bushes, trees, grasses, and other vegetation) that are scheduled to be removed by the project may be removed prior to the start of the nesting season (e.g., prior to February 1). This will preclude the initiation of nests in this vegetation, and minimize the potential delay of the project due to the presence of active nests in these substrates.

- Baldwin, B. G., D. H. Goldman, D. J. Keil, R. Patterson, T. J. Rosatti, and D. H. Wilken (eds.) 2012. The Jepson Manual: Vascular Plants of California. 2nd Edition. University of California Press, Berkeley.
- Bousman, W. G. 2007a. Tricolored blackbird *Agelains tricolor*. Pages 426-427 in W. G. Bousman, editor. Breeding Bird Atlas of Santa Clara County. Santa Clara Valley Audubon Society, Cupertino, California.
- Bousman, W. G. 2007b. Swainson's hawk *Buteo swainsoni*. Pages 506-507 in W. G. Bousman, editor. Breeding bird atlas of Santa Clara County. Santa Clara Valley Audubon Society, Cupertino, California.
- Bousman, W. G. 2007c. Loggerhead shrike *Lanius ludovicianus*. Pages 288-289 in W. G. Bousman, editor. Breeding bird atlas of Santa Clara County. Santa Clara Valley Audubon Society, Cupertino, California.
- Bousman, W. G. 2007d. Yellow warbler *Dendroica petechia*. Pages 376-377 in W. G. Bousman, editor. Breeding bird atlas of Santa Clara County. Santa Clara Valley Audubon Society, Cupertino, California.
- Bousman, W. G. 2007e. Common yellowthroat *Geothlypis trichas*. Pages 386-387 in W. G. Bousman, editor. Breeding bird atlas of Santa Clara County. Santa Clara Valley Audubon Society, Cupertino, California.
- Bousman, W. G. 2007f. White-tailed Kite *Elanus leucurus*. Pp 172-173 in Bousman, W. G., editor. Breeding Bird Atlas of Santa Clara County. Santa Clara Valley Audubon Society, Cupertino, California.
- Cade, T. J. and C. P. Woods. 1997. Changes in distribution and abundance of the loggerhead shrike. Conservation Biology 11:21-31.
- Cain, J. W., M. L. Morrison, and H. L. Bombay. 2003. Predator activity and nest success of willow flycatchers and yellow warblers. Journal of Wildlife Management 67:600-610.
- California Department of Fish and Game. 2010. List of Vegetation Alliances and Associations. Vegetation Classification and Mapping Program, California Department of Fish and Game. Sacramento, CA. September 2010.
- [Cal-IPC] California Invasive Plant Council. 2016. California Invasive Plant Inventory Database. Accessed July 2016. http://www.cal-ipc.org/paf/
- City of San José. 1999. Riparian Corridor Policy Study. Prepared with The Habitat Restoration Group and Jones and Stokes Associates, Inc. Approved by the City Council.
- City of San José. 2012. Envision San José 2040: General Plan.

[CNDDB] California Natural Diversity Data Base. 2016. Rarefind. California Department of Fish and Wildlife.

- [CNPS] California Native Plant Society. 2016. Inventory of Rare and Endangered Plants of California (7th edition). Rare Plant Scientific Advisory Committee.
- Coulombe, H. N. 1971. Behavior and population ecology of the burrowing owl, *Speotyto cunicularia*, in the Imperial Valley of California. Condor 73:162-176.
- Dunk, J. R. 1995. White-tailed Kite (*Elanus leucurus*), The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: <u>http://bna.birds.cornell.edu/bna/species/178</u>.
- Dunk, J. R. and R. J. Cooper. 1994. Territory-size regulation in black-shouldered kites. Auk 111:588-595.
- Erichsen, E. L., K. S. Smallwood, A. M. Commandatore, B. W. Wilson, and M. D. Fry. 1996. White-tailed kite movement and nesting patterns in an agricultural landscape in D. Bird, D. Varland, and J. Negro, editors. Raptors in Human Landscapes. Academic Press, San Diego, California.
- Gardali, T., and J. G. Evens. 2008. San Francisco common yellowthroat (*Geothlypis trichas sinuosa*) in W. D. Shuford and T. Gardali, editors. California bird species of special concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Western Field Ornithologists and California Department of Fish and Game, Camarillo and Sacramento, California.
- Gleason, R. L. and T. H. Craig. 1979. Food habits of burrowing owls in southeastern Idaho. Great Basin Naturalist 39:274-276.
- Google Inc. 2016. Google Earth Pro (Version 7.1.5.1557) [Software]. Available from www.google.com/earth.
- Gorman, L. R., D. K. Rosenberg, N.A. Ronan, K.L. Haley, J. A. Gervais, and V. Franke. 2003. Estimation of reproductive rates of burrowing owls. Journal of Wildlife Management 67:493-500.
- Grinnell, J., and A. H. Miller. 1944. The distribution of the birds of California. Cooper Ornithological Club, Berkeley, California.
- Guzy, M. J., and G. Ritchison. 1999. Common yellowthroat (Geothlypis trichas) in A. Poole and F. Gill, editors. The Birds of North America. The Birds of North America, Inc., Philadelphia
- H. T. Harvey & Associates. 1997. Santa Clara Valley Water District California Red-legged Frog Distribution and status 1997. June.

- H. T. Harvey & Associates. 1999. Santa Clara Valley Water District California Tiger Salamander Distribution and Status 1999. Prepared for the Santa Clara Valley Water District.
- H. T. Harvey & Associates. 2010a. Santa Clara Valley Water District San Francisco Dusky-footed Woodrat Distribution and Status – 2010. Prepared for the Santa Clara Valley Water District.
- H. T. Harvey & Associates. 2010b. Lower Llagas Creek Least Bell's Vireo Surveys. Prepared for the Santa Clara Valley Water District.
- H. T. Harvey & Associates 2012. Santa Clara Valley Water District California Tiger Salamander Surveys and Site Assessments at Selected Santa Clara County Locations. Prepared for the Santa Clara Valley Water District. August 2012.
- Haug, E. A. and L. W. Oliphant. 1990. Movements, activity patterns, and habitat use of burrowing owls in Saskatchewan. Journal of Wildlife Management 54:27-35.
- Heath, S. K. 2008. Yellow warbler (*Dendroica petechia*) in W. D. Shuford and T. Gardali, editors. California bird species of special concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Western Field Ornithologists and California Department of Fish and Game, Camarillo and Sacramento, California.
- Hobbs, J. A., P. Moyle, and N. Buckmaster. 2012. Monitoring the Response of Fish Communities to Salt Pond Restoration: Final report. Prepared for the South Bay Salt Pond Restoration Program and Resource Legacy Fund. University of California, Davis, California.
- Holland, R. F. 1986. Preliminary descriptions of the terrestrial natural communities of California. California Department of Fish and Game.
- Humple, D. 2008. Loggerhead shrike (Lanius ludovicianus) (mainland populations) in W. D. Shuford and T. Gardali, editors. California bird species of special concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Western Field Ornithologists and California Department of Fish and Game, Camarillo and Sacramento, California.
- ICF International. 2012. Final Santa Clara Valley Habitat Plan, Santa Clara County, California. Prepared for the County of Santa Clara, City of San José, City of Morgan Hill, City of Gilroy, Santa Clara Valley Water District, and Santa Clara Valley Transportation Authority.
- Jennings, M. R. and M. P. Hayes. 1994. Amphibian and reptile species of special concern in California. California Department of Fish and Game, Inland Fisheries Division, Rancho Cordova, California. iii+255 p.

- Lowther, P. E., C. Celada, N. K. Klein, C. C. Rimmer, and D. A. Spector. 1999. Yellow warbler (*Dendroica petechia*) in A. Poole and F. Gill, editors. The Birds of North America. The Birds of North America, Inc., Philadelphia.
- Lutz, R. S. and D. L. Plumpton. 1999. Philopatry and nest site reuse by burrowing owls: Implications for productivity. J. Raptor Research 33:149-153.
- Martin, D. J. 1973. Selected aspects of burrowing owl ecology and behavior. Condor 75:446-456.
- Menges, T. 1998. Common yellowthroat (*Geothlypis trichas*) in The riparian bird conservation plan: A strategy for reversing the decline of riparian-associated birds in California. California Partners in Flight.
- Nationwide Environmental Title Research. 2016. Historic Aerials Website. Available from http://www.historicaerials.com/.
- Natural Resources Conservation Service. 2016. Web Soil Survey. Available online at http://websoilsurvey.nrcs.usda.gov/. Accessed July 2016.
- Nur, N., S. Zack, J. Evans, and T. Gardali. 1997. Tidal marsh birds of the San Francisco Bay region: Status distribution, and conservation of five Category 2 taxa. PRBO Conservation Science final draft report to the United States Geological Survey.
- Plumpton, D. L. and R. S. Lutz. 1993. Nesting habitat use by burrowing owls in Colorado. Journal of Raptor Research 27:175-179.
- Polite, C. 1990. Black-shouldered Kite *Elanus caeruleus*. In California's Wildlife, Vol II: Birds. D. C. Zeiner, W.
 F. Laudenslayer Jr., K. E. Mayer, and M. White, Eds. California Department of Fish and Game, California Statewide Wildlife Habitat Relationships System. Pp 120-121.
- PRISM Climate Group. 2016. Online PRISM Data Explorer. Oregon State University, Corvallis, OR. Accessed July 2016 from <u>http://www.prism.oregonstate.edu/normals/</u>.
- Rich, T. 1984. Monitoring burrowing owl populations: implications of burrow re-use. Wildlife Society Bulletin 12:178-180.
- Rosier, J. R., N. A. Ronan, and D. K. Rosenberg. 2006. Post-breeding dispersal of burrowing owls in an extensive California grassland. American Midland Naturalist 155:162-167.
- San Francisco Bay Bird Observatory. 2012. Determining the Breeding Extent of the San Francisco Common Yellowthroat and the Alameda Song Sparrow in Santa Clara County, California. Final Report. 17 December 2012.

- [SCVHA] Santa Clara Valley Habitat Agency. 2016. Geobrowser. Accessed July 2016 at http://www.hcpmaps.com/habitat/.
- [SCVWD] Santa Clara Valley Water District. 2011. Stream Maintenance Program Update 2011-2022. Final Subsequent Environmental Impact Report.
- [SCVWRP Collaborative] Santa Clara Valley Water Resources Protection Collaborative. 2007. Guidelines & Standards for Land Use Near Streams. A Manual of Tools, Standards and Procedures to Protect Streams and Streamside Resources in Santa Clara County. Revised July 2006.
- Sawyer, J. O., T. Keeler-Wolf, and J. M. Evans. 2009. A Manual of California Vegetation Second Edition. California Native Plant Society Press Sacramento, CA.
- Skonieczny, M. F., and J. R. Dunk. 1997. Hunting synchrony in white-tailed kites. Journal of Raptor Research.
- Trulio, L. A. 2007. Burrowing owl Athene cunicularia. Pages 236-237 in W. G. Bousman, editor. Breeding Bird
- [USACE] U. S. Army Corps of Engineers. 1987. Corps of Engineers Wetlands Delineation Manual. Environmental Laboratory U.S. Army Corps of Engineers, Waterways Experiment Station, Wetlands Research Program Technical Report Y-87-1. Vicksburg, MS
- Yosef, R. 1996. Loggerhead shrike in A. Poole and F. Gill, editors. The Birds of North America. The Birds of North America, Inc., Philadelphia.
- Zeiner, D. C., W. F. Laudenslayer Jr., K. E. Mayer, and M. White, editors. 1990. California's Wildlife. Volume II: Birds. California Department of Fish and Game, Sacramento, California.

Appendix E

Tree Inventory

EXHIBIT A - GENERAL TREE LOCATION MAP



HMH 408.487.2200

EXHIBIT A - GENERAL TREE LOCATION MAP ENLARGEMENTS



ENLARGEMENT TREES 24-54



ENLARGEMENT TREES 55-78





TREE EVALUATION TABLE

Prepa	red By: Lisa Harri	is, ISA Certified Arborist #WE-9977A
DBH M	EASUREMENT HE	GHT: 24"
Date of	Evaluation:9/18/15	
Suitab	ility for Preservat	tion is based on the following
Good - [·]	Trees with good health	and structural stability that have the potential for longevity at the site.
Moderat	te - Trees in somewhat	t declining health and/or exhibits structural defects that cannot be abated with treatment. Trees will require more intense management and will have a
shorter	lifespan than those in t	he 'Good' category.
Poor - T	rees in poor health or	with significant structural defects that cannot be mitigated. Tree is expected to decline, regardless of treatment.
Health	Rating	
5	A healthy, vigorous tre	ee, reasonably free of disease, with good structure and form typical of the species.
4	A tree with slight decli	ne in vigor, small amount of twig dieback, minor structural defects that could be corrected.
3	A tree with moderate v	vigor, moderate twig and small branch dieback, thinning of crown, poor leaf color, moderate structural defects that may that might be mitigated with care.
2	A tree in decline, epice	ormic growth, extensive dieback of medium to large branches, significant structural defects that cannot be abated.
1	A tree in severe declin	e, dieback of scaffold branches and or trunk, mostly epicormic growth; extensive structural defects that cannot be abated.
0	Tree is dead.	
Abbre	viations and Defin	nitions
CD	Codominant branches	Forked branches nearly the same size in diameter, arising from a common junction an lacking a normal branch union.
CDB	Dieback in Crown	Condition where branches in the tree crown die from the tips toward the center.
DB	Dieback	Progressive death of twigs and branches which generally starts at the tip
DBH	Diameter at Breast Height	Measurement of tree diameter in inches. Measurement height varies by City and is noted above.
FB	Fireblight	A disease in fruit trees resulting in burnt looking foliage.
Н	Hazardous	A tree that in it's current condition, presents a hazard.
HD	Headed	Poor pruning practice of cutting back branches. Often practiced under utility lines to limit tree height.
IB	Included Bark	Structural defect where bark is included between the branch attachment so the wood can't join. Such defect can have a higher probability of failure.
LN	Leaning Tree	Tree leaning, see notes for severity.
MS	Multi-stem	A tree having 2 or more trunks, either originating at grade or branching after DBH height measurement.
ND	Nitrogen Deficiency	Deficiency often resulting in lack of growth and yellow or pale green leaves.
PA	Planting Area	
S	Suckers	Shoot arising from the roots.
SC	Soil Compaction	Compaction of soil around tree root system which can damage vitality.
SD	Structural Defects	Naturally or secondary conditions including cavities, poor branch attachments, cracks, or decayed wood in any part of the tree that may contribute to structural failure.
SR	Surface Roots	Roots visible at finished grade.
SS	Sunscald	Injury to bark tissues on the trunk/branches caused by rapid temperature changes
NT	Not Tagged	Tree not tagged due to small DBH, lack of access or stability concerns.
	Ordinance Tree	A tree defined in this section herein below and whose removal or topping is covered by and subject to the provisions of chapter 13. Ordinance tree means any live or dead woody perennial plant characterized by having a main stem or trunk which measures 56" or more in circumference at a height of 24" above natural grade slope. A multi-trunk tree shall be considered a single tree and measurement of that tree shall include the sum of the circumference of the trunks of that tree at a height of 24" above natural grade slope. "Tree" shall include the plural of that term" (13.32.020).

TREE #	BOTANICAL NAME	COMMON NAME	MS DBH	TOTAL DBH	CIRCUMF- ERENCE	(CIR. ≥ 56") ORDINANCE TREE	LOCATION	NATIVE	HEALTH	PRESERVAT- ION SUITABILITY	NOTES	RECOMMENDATION S
1	Acer negundo californicum	California Box Elder		10.0	31		SW property corner off Ranch Drive	yes	3	Good	general area of trees 1-5 not accessible due to dense brush growth. NT	monitor for vigor in the spring
2	Acer negundo californicum	California Box Elder		5.0	16		SW property corner off Ranch Drive	yes	3	Moderate	NT	monitor for vigor in the spring
3	Acer negundo californicum	California Box Elder		10.0	31		SW property corner off Ranch Drive	yes	2	Poor	NT Covered in mistletoe, otherwise leafless, appears to have extensive DB	monitor for vigor in the spring
4	Sambucus caerulea	Blue Elderberry		16.0	50		SW property corner off Ranch Drive	no	3	Moderate	NT shrubby weeping habit	
5	Acer negundo californicum	California Box Elder	2"x4	8.0	25		SW property corner off Ranch Drive	yes	3	Moderate	NT	monitor for vigor in the spring
6	Jacaranda mimosifolia	Jacaranda		4.6	14		E side of gravel drive	no	4	Good	NT irrigated via drip system, slight LN	prune
7	Pistacia chinensis	Chinese pistache		6.2	19		E side of gravel drive	no	4	Good	NT irrigated via drip system, slight LN	prune
8	Jacaranda mimosifolia	Jacaranda		9.8	31		E side of gravel drive	no	3	Moderate	irrigated via drip system, curving trunk, LN	prune
9	Liquidambar styraciflua	Sweet Gum		5.5	17		E side of gravel drive	no	3	Moderate	tagged on tree stake, drooping branches, irregular habit, irrigated	prune
10	Prunus persica	Peach		6.1	19		E side of gravel drive	no	1	Moderate	planted as a fruit bearing tree, severe decay, near death, limb is leaning on brick	tree is not a danger and can remain if it is useful to the current site conditions.
11	Prunus persica	Peach		4.0	13		E side of gravel drive	no	4	Moderate	NT, leaf curl, low branching Measured before tree fork.	tree is not a danger and can remain if it is useful to the current site conditions.

TREE #	BOTANICAL NAME	COMMON NAME	MS DBH	TOTAL DBH	CIRCUMF- ERENCE	(CIR. ≥ 56") ORDINANCE TREE	LOCATION	NATIVE	HEALTH	PRESERVAT- ION SUITABILITY	NOTES	RECOMMENDATION S
12	Prunus persica	Peach		6.4	20		E side of gravel drive	no	1	Moderate	severe decay, poor structure	tree is not a danger and can remain if it is useful to the current site conditions.
13	Prunus persica	Peach		4.0	13		E side of gravel drive	no	4	Moderate	NT, leaf curl, low branching Measured before tree fork.	tree is not a danger and can remain if it is useful to the current site conditions.
14	Prunus persica	Peach		4.0	13		E side of gravel drive	no	1	Moderate	severe decay, poor structure	tree is not a danger and can remain if it is useful to the current site conditions.
15	Prunus persica	Peach	7.3+8	15.3	48		E side of gravel drive	no	1	Moderate	hollow decaying base	tree is not a danger and can remain if it is useful to the current site conditions.
16	Quercus agrifolia	Coast Live Oak		12.7	40		E side of gravel drive	yes	3	Moderate	slight LN, low branching, flat topped, wound at base	
17	Quercus agrifolia	Coast Live Oak		10.0	31		at end of gravel drive	yes	4	Moderate	In tight cluster with trees 18 and 19. All are low branching, shrubby forms, growing on a mound of dirt.	
18	Quercus agrifolia	Coast Live Oak		6.0	19		at end of gravel drive	yes	4	Moderate	See tree #17 notes	
19	Quercus agrifolia	Coast Live Oak		14.0	44		at end of gravel drive	yes	4	Moderate	NT, see tree #17 notes	
20	Quercus agrifolia	Coast Live Oak		4.0	13		at end of gravel drive	yes	4	Moderate	NT growing in tight cluster with tree 21 on a	
21	Quercus agrifolia	Coast Live Oak		7.0	22		at end of gravel drive	yes	4	Moderate	NT, see tree #20 notes	

TREE #	BOTANICAL NAME	COMMON NAME	MS DBH	TOTAL DBH		(CIR. ≥ 56") ORDINANCE TREE	LOCATION	NATIVE	HEALTH	PRESERVAT- ION SUITABILITY	NOTES	RECOMMENDATION S
22	Sambucus caerulea	Blue Elderberry		12.0	38		at end of gravel drive near bee boxes	no	3	Moderate	NT, low branching shrubby habit	
23	Fraxinus uhdei	Shamel Ash		30.0	94	yes	NW corner of greenhouse bldg.	no	3	Moderate	IB at base and poor branching pattern, very close to structure	
24	Prunus species	Cherry		6.0	19		along E side of house and trailers	no	3	Moderate	NT, low branching shrubby habit, not accessible	
25	Olea europaea	European Olive	12+1+2+ 3+3+3+1 0	34.0	107	yes	along E side of house and trailers	no	4	Moderate		
26	Olea europaea	European Olive	4.5+7	11.5	36		along E side of house and trailers	no	4	Moderate		
27	Olea europaea	European Olive	7+6+1+1 +1	16.0	50		along E side of house and trailers	no	4	Moderate	trees #25-30 are fruit bearing olives, typical specimen of the species- low branching MS	
28	Olea europaea	European Olive	4.5+6.7+ 1+2+3+5	22.2	70	yes	along E side of house and trailers	no	4	Moderate		
29	Olea europaea	European Olive	10+2+1+ 1+1+2	16.0	50		along E side of house and trailers	no	4	Moderate		
30	Olea europaea	European Olive	11+1+1	13.0	41		along E side of house and trailers	no	4	Moderate		
31	Ligustrum lucidum	Glossy Privet	2.5+3	5.5	17		E side of house	no	3	Poor	volunteer tree with a low crotch	

TREE #	BOTANICAL NAME	COMMON NAME	MS DBH	TOTAL DBH	CIRCUMF- ERENCE	(CIR. ≥ 56") ORDINANCE TREE	LOCATION	NATIVE	HEALTH	PRESERVAT- ION SUITABILITY	NOTES	RECOMMENDATION S
32	Juniperus species	Juniper		11.0	35		E side of house	no	2	Poor	severe LN	
33	Ligustrum lucidum	Glossy Privet	6.6+2+7	15.6	49		E side of house	no	1	Poor	at house foundation	remove
34	Lagerstroemia indica	Crape Myrtle	4+4+4	12.0	38		yard between house and trailer	no	4	Moderate	NT, low branching,MS specimen	prune
35	Podocarpus gracilior	Fern Pine		5.0	16		yard between house and trailer	no	3	Moderate	low branching	prune to improved structure
36	Ligustrum lucidum	Glossy Privet	6.5+4.7	11.2	35		yard between house and trailer	no	2	Poor	NT	
37	Schinus Molle	Peruvian Pepper		12.3	39		yard between house and trailer	no	3	Moderate	LN, covered with spiders	
38	Ligustrum lucidum	Glossy Privet	4+4+3	11.0	35		yard between house and trailer	no	4	Moderate	low branching	
39	Ligustrum lucidum	Glossy Privet		4.8	15		front of trailer	no	3	Poor	low branching	
40	Ligustrum lucidum	Glossy Privet		4.8	15		front of trailer	no	3	Poor		
41	Ligustrum lucidum	Glossy Privet		13.0	41			no	3	Poor		
42	Ligustrum lucidum	Glossy Privet		12.0	38			no	3	Poor		
43	Ligustrum lucidum	Glossy Privet	8+7+7	22.0	69	yes		no	3	Poor		

TREE #	BOTANICAL NAME	COMMON NAME	MS DBH	TOTAL DBH	CIRCUMF ERENCE	(CIR. ≥ 56") ORDINANCE TREE	LOCATION	NATIVE	HEALTH	PRESERVAT- ION SUITABILITY	NOTES	RECOMMENDATION S
44	Ligustrum lucidum	Glossy Privet		14.0	44		front of yard between house and trailer	no	3	Poor	Trees #41-47 are growing as a tightly clustered hedge	
45	Ligustrum lucidum	Glossy Privet		12.0	38			no	3	Poor		
46	Ligustrum lucidum	Glossy Privet		12.0	38			no	3	Poor	*	
47	Ligustrum lucidum	Glossy Privet		10.0	31			no	3	Poor		
48	Ligustrum lucidum	Glossy Privet	5+7	12.0	38		close to house foundation	no	2	Poor	growing close to house foundation	remove
49	Pistacia chinensis	Chinese pistache		7.2	23		house front yard grass	no	4	Moderate		
50	Ligustrum lucidum	Glossy Privet		8.0	25		S side of house, grass	no	1	Poor		remove
51	Pseudotsuga menziesii	Douglas Fir		5.4	17		S side of house, grass	no	1	Poor		remove
52	Ligustrum lucidum	Glossy Privet		5.1	16		S side of house, close to house	no	1	Poor	volunteer	remove
53	Ligustrum lucidum	Glossy Privet		7.3	23		S side of house, close to house	no	2	Poor		
54	Ligustrum lucidum	Glossy Privet	3+3+3+3 +3+3+1	19.0	60	yes	S side of house, close to house	no	2	Poor		
55	Sequoia sempervirens	Coast Redwood		39.0	122	yes	1657 Ranch Dr. yard	no	4	Good	upright sizeable tree in good health	
56	Lagerstroemia indica	Crape Myrtle	8.1+6+8 +8	30.1	95	yes	1657 Ranch Dr. yard	no	4	Moderate	nice specimen, low branching, slightly stressed, likely due to drought	

TREE #	BOTANICAL NAME	COMMON NAME	MS DBH	TOTAL DBH	CIRCUMF ERENCE	(CIR. ≥ 56") ORDINANCE TREE	LOCATION	NATIVE	HEALTH	PRESERVAT- ION SUITABILITY	NOTES	RECOMMENDATION S
57	Platanus acerifolia	London Plane		47.0	148	yes	1657 Ranch Dr. yard	no	5	Good	beautiful tree, limbs overhang the house	monitor branches, prune to avoid limb drop onto structure
58	Platanus acerifolia	London Plane		52.5	165	yes	1657 Ranch Dr. yard	no	4	Good		remove ivy from tree, monitor branches, prune to avoid limb drop onto structure
59	Quercus agrifolia	Coast Live Oak		13.0	41		1657 Ranch Dr. yard	yes	3	Moderate	slight LN, upright form, large cankers apparent on trunk	
60	Ligustrum lucidum	Glossy Privet		16.5	52		1657 Ranch Dr. yard	no	2	Poor	severe leaf scale	
61	Umbellularia californica	California Bay Laurel		37.0	116	yes	1657 Ranch Dr. yard, asphalt drive	yes	4	Moderate	severe aphid infestation	spray off foliage, prune out any heavily infested areas as a first measure. Additional measures may be necessary to control
62	Prunus species	Cherry	8.1+5.9+ 5.4+6.5+ 9	34.9	110	yes	1657 Ranch Dr. yard	no	3	Moderate	leaf curl, low crotch	tree is not a danger and can remain if it is useful to the current site conditions.
63	Malus species	Apple		7.6	24		1657 Ranch Dr. yard	no	1	Poor	fruit bearing	tree is not a danger and can remain if it is useful to the current site conditions.
64	Juglans californica	California Walnut		20.0	63	yes	SCVWD slope behind chain link fence	yes	4	Good	NT	
65	Malus species	Apple		6.0	19		1657 Ranch Dr. yard	no	3	Poor	fruit bearing	tree is not a danger and can remain if it is useful to the current site conditions.

TREE #	BOTANICAL NAME	COMMON NAME	MS DBH	TOTAL DBH	CIRCUMF- ERENCE	(CIR. ≥ 56") ORDINANCE TREE	LOCATION	NATIVE	HEALTH	PRESERVAT- ION SUITABILITY	NOTES	RECOMMENDATION S
66	Platanus acerifolia	London Plane	24+23.8	47.8	150	yes	1657 Ranch Dr. yard	no	4	Good	low forking tree with aged trunk, sooty mold	
67	Malus species	Apple		4.0	13		1657 Ranch Dr. yard	no	0	Poor	measured low	remove
68	Camellia species	Camellia	3.7+3+3 +3	12.7	40		1657 Ranch Dr. yard, near front door	no	4	Moderate		
69	Quercus agrifolia	Coast Live Oak		16.0	50		near 1657 Ranch Dr. yard behind chain link fence	yes	4	Good	NT, not accessible	
70	Sambucus caerulea	Blue Elderberry	3+3+3+8 +10+12	39.0	122	yes	in corner of fencing near gate to 1657 Ranch Dr.	no	3	Moderate	low branching	
71	Platanus acerifolia	London Plane		8.2	26			no	3	Moderate	Planted in a row with trees #71-76, covered by canopy of tree #70	
72	Platanus acerifolia	London Plane		6.6	21			no	3	Moderate		
73	Platanus acerifolia	London Plane	11.7+11. 7	23.4	73	yes	of drive to 1657 Ranch	no	4	Good		
74	Platanus acerifolia	London Plane		10.3	32		Drive	no	4	Good		
75	Platanus acerifolia	London Plane		5.8	18			no	3	Moderate	irregular uneven habit	prune
76	Platanus acerifolia	London Plane		8.2	26			no	4	Moderate		prune
77	Sambucus caerulea	Blue Elderberry	12+4+14	30.0	94	yes	corner near gate to 1657 Ranch Dr.	no	2	Poor	low branching, dead canopy	
78	Sambucus caerulea	Blue Elderberry	7+3+3	13.0	41		corner near gate to 1657 Ranch Dr.	no	3	Moderate		

TREE #	BOTANICAL NAME	COMMON NAME	MS DBH	TOTAL DBH	CIRCUMF- ERENCE	(CIR. ≥ 56") ORDINANCE TREE	LOCATION	NATIVE	HEALTH	PRESERVAT- ION SUITABILITY	NOTES	RECOMMENDATION S
79	Sambucus caerulea	Blue Elderberry	3+3+3+3 +3+3+8	24.0	75	yes	near 1657 Ranch Dr. mailbox	no	3	Poor		
80	Juglans californica	California Walnut	6+6+6	18.0	57	yes	N property boundary	yes	2	Poor	severe DB, decline	remove
81	Acer negundo californicum	California Box Elder	16+10+1 0+9	45.0	141	yes	N property boundary	yes	0	Poor	previously tagged #134	remove
82	Acer negundo californicum	California Box Elder		11.0	35		N property boundary	yes	0	Poor	previously tagged #133, next to tree #81	remove
83	Acer negundo californicum	California Box Elder		20.0	63	yes	N property boundary	yes	0	Poor	NT	remove
84	Acer negundo californicum	California Box Elder	18+8+8	34.0	107	yes	N property boundary	yes	0	Poor	NT	remove. Judging from the many fallen trees in the area, tree is a risk to fall soon as are most in this area of the site
85	Juglans californica	California Walnut		6.0	19		N property boundary	yes	2	Poor	NT, stressed	remove
86	Acer negundo californicum	California Box Elder		10.0	31		N property boundary	yes	0	Poor	NT	remove
87	Acer negundo californicum	California Box Elder		10.0	31		N property boundary	yes	0	Poor	NT	remove
88	Acer negundo californicum	California Box Elder	4+4+3	12.0	38		N property boundary	yes	0	Poor	NT, in cluster with trees #89, 90	remove
89	Acer negundo californicum	California Box Elder	6+2+7	15.0	47		N property boundary	yes	0	Poor	NT	remove
90	Acer negundo californicum	California Box Elder	7+7	14.0	44		N property boundary	yes	0	Poor	NT	remove
91	Populus fremontii	Fremont's Cottonwood	6+6	12.0	38		N property boundary	yes	2	Poor	low branching MS	remove
92	Populus fremontii	Fremont's Cottonwood	3+3+3+3 +6	18.0	57	yes	N property boundary	yes	1	Poor	severe decay	remove
93	Populus fremontii	Fremont's Cottonwood	2+2+4	8.0	25		N property boundary	yes	0	Poor	low branching MS	remove
94	Populus fremontii	Fremont's Cottonwood	6+6+6+6	24.0	75	yes	N property boundary	yes	0	Poor	low branching MS	remove

TREE #	BOTANICAL NAME	COMMON NAME	MS DBH	TOTAL DBH	CIRCUMF- ERENCE	(CIR. ≥ 56") ORDINANCE TREE	LOCATION	NATIVE	HEALTH	PRESERVAT- ION SUITABILITY	NOTES	RECOMMENDATION S
95	Populus fremontii	Fremont's Cottonwood	6+7+8	21.0	66	yes	N property boundary	yes	0	Poor	low branching MS	remove

TREE #	BOTANICAL NAME	COMMON NAME	MS DBH	TOTAL DBH	(CIR. ≥ 56") ORDINANCE TREE	LOCATION	NATIVE	HEALTH	PRESERVAT- ION SUITABILITY	NOTES	RECOMMENDATION S
Offs	ite trees										

Trees along the western property edge and S perimeter adjoining the electrical facility were not included in the survey. See tree location map for general locations. Species consist of roughly 100 Peruvian Pepper and a mixture of roughly 75 Pine, London Plane, and Elderberry. These trees may be on the adjacent property owner's parcel. Ownership should be verified prior to any action.

Attachment DR-14 Revised Appendix 3.5 Cultural Resources Investigation Report - CONFIDENTIAL

Attachment DR-14

Five copies of the Revised Appendix 3.5 Cultural Resource Investigation in Support of the San Jose Data Center Project report have been provided under a request for confidentiality.