

APPENDIX C

BIOLOGICAL RESOURCES REVIEW

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October 16, 2025

Justin Chapel
Public Works Superintendent, Water Division
City of Redwood City
1400 Broadway
Redwood City, CA 94063

Subject: Biological Resources Review for the Phase 2 Recycled Water Master Plan Project,
Redwood City, San Mateo County, California (LSA Project No. RWC2201.03)

Dear Mr. Chapel:

LSA is pleased to provide this biological resources review pursuant to the California Environmental Quality Act (CEQA) for the proposed City of Redwood City (City) Phase 2 Recycled Water Master Plan (RWMP) Project (Project). This letter provides a brief summary of the Project location, background, environmental setting, potential special-status resources and recommendations, all evaluated pursuant to CEQA requirements.

PROJECT UNDERSTANDING AND APPROACH

The City proposes to adopt and implement the RWMP Project, shown in Figure 1 (all figures are provided in Attachment B). The purpose of the Project is to provide a logical planning framework for the City to expand the existing Phase 1 recycled water system in phases to service additional customers and improve the existing recycled water system. Specifically, the proposed Project would establish a plan to: (a) expand the City's Recycled Water Service area to include the east market Assessment Service Area, which would then be subject to the Recycled Water Use Ordinance; (b) expand the City's Recycled Water pipeline system in the central and east areas, which is home to a higher concentration of high-demand customers in close proximity; and (c) include back up water storage tanks and pumps.

The proposed Phase 2 expansion focuses on the central area, which is home to a higher concentration of high-demand customers in close proximity. The proposed recycled water expansion plan includes more than 30,000 linear feet, or 5.7 miles, of transmission and distribution pipelines that would create multiple transmission and distribution loops as shown in Figure 2.

Construction of pipelines would occur primarily within existing roadway and public easement rights-of-way. Most pipeline construction would be performed by the "trench-and-cover" method, which involves excavating an open trench, laying pipe, and replacing and compacting soil to refill the trench. For construction in paved areas, the trench area is then repaved. For construction in landscaped areas, the landscaping would be replaced. Construction equipment would typically occupy approximately a 20- to 26-foot-wide segment of the roadway.

Construction of some pipeline segments will utilize either the bore-and-jack method or horizontal directional drilling where the pipelines cross railroad tracks, creeks or other water bodies, major transportation facilities (e.g., highways), or congested street intersections. These methods involve excavating a pit on either side of the area to be crossed.

Based on discussions with the City over the last several months, it was determined that a Program Environmental Impact Report (PEIR) would likely be the appropriate document to fulfill CEQA requirements and to allow CEQA tiering opportunities for executing and implementing projects under the RWMP.

Project Location

The City is in the central portion of San Mateo County, approximately 15 miles southeast of San Francisco and 15 miles northwest of San Jose (Figure 1). The City is bounded by Foster City and San Francisco Bay (Bay) to the north; Bay to the east; Menlo Park, Atherton, and Woodside to the south; and San Carlos and Belmont to the west.

METHODS

For the purposes of this review, the Biological Study Area (BSA) is defined by the Demand Buffer for the proposed Phase 2 Expansions Area/Project Area (Figure 3).

Definition of Special-Status Resources

For the purposes of this review, special-status resources include:

- Species listed or proposed to be listed as threatened or endangered or otherwise considered candidates for listing under the Federal Endangered Species Act (FESA);
- Species listed as candidate, threatened, or endangered under the California Endangered Species Act (CESA);
- Species designated as Fully Protected or Species of Special Concern by the California Department of Fish and Wildlife (CDFW);
- Plant species with a California Rare Plant Rank (CRPR) in Categories 1 or 2;
- Species designated as sensitive by the United States Forest Service or Bureau of Land Management, if the project would affect lands administered by these agencies;
- Species designated as locally important by the Local Agency and/or otherwise protected through ordinance or local policy;
- Sensitive natural communities as defined by the CDFW or local agencies; and
- Aquatic features.

Database Search and Background Review

The following sources were reviewed for information on special-status biological resources in the Project vicinity:

- CDFW California Natural Diversity Database (CNDDDB; CDFW 2025a)
- CDFW Biogeographic Information and Observation System (BIOS; CDFW 2025b)
- CDFW California Wildlife Habitat Relationships (CWHR) System (Mayer and Laudenslayer 1990)
- California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California (CNPS 2025)
- United States Fish and Wildlife Service's (USFWS) Information for Planning and Consultation system (USFWS 2025b)
- USFWS Critical Habitat Mapper (USFWS 2025a)
- USFWS National Wetlands Inventory (NWI; USFWS 2025c)
- United States Department of Agriculture, Natural Resources Conservation Service (NRCS) Web Soil Survey (NRCS 2025)
- Current and historical aerial imagery (Google LLC 2025)

For each of these data sources, the search was focused on the *Palo Alto, California* United States Geological Survey (USGS) 7.5-minute quadrangle in which the Project is located, plus the surrounding eight quadrangles. For the CNDDDB, a 10-mile search radius was used.

The CNDDDB provides element-specific spatial information on individually documented occurrences of special-status species and sensitive natural communities. Some of the information available in the CNDDDB is still undergoing review by the CDFW; these records are identified as unprocessed data. The CNPS database provides similar information as the CNDDDB, but at a much lower spatial resolution. Much of this information in these databases is obtained opportunistically and is often focused on protected lands or on lands where development has been proposed. Neither database represents a comprehensive survey for special-status resources in the region. As such, the absence of recorded occurrences in these databases at any specific location does not preclude the possibility that a special-status resource could be present. The NWI and Web Soil Survey provide comprehensive data but at a low resolution, requiring confirmation in the field.

The results of the database inquiries were reviewed to develop a list of special-status resources that may be present on and within the vicinity of the Project. This list was then evaluated against the existing conditions observed during the reconnaissance site visit of the BSA to determine which

special-status resources have the potential to occur, as well as the potential for impacts to those resources from implementation of the Project.

References are in Attachment A.

Potential for Occurrence Assessment

Assessments for the potential occurrence of special-status species are based on known ranges, habitat preferences for the species, species occurrence records from the CNDDDB and CNPS, species occurrence records from other sites in the vicinity of the survey area, previous reports for the Project site, and the results of surveys of the Project site. The potential for each special-status species to occur in the BSA was evaluated according to the following criteria:

- **No:** Habitat on and adjacent to the site is clearly unsuitable to meet the needs of the species (i.e., foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime), and species would have been identifiable on site if present (e.g., oak trees). Protocol surveys (if conducted) did not detect species.
- **Yes:** Conditions within the BSA may, in some way, support a portion of the species' ecology (e.g., foraging, reproduction, movement/migration). Protocol surveys (if conducted) were conducted, but negative results do not exclude the potential for a species to occur.
- **Present:** The species was observed within the BSA or has been recorded (e.g., CNDDDB, other reports) in the BSA recently (within the last 5 years).

ENVIRONMENTAL SETTING

Topography and Land Use

The Project site is relatively flat and is developed and surrounded almost entirely by residential, commercial, and industrial land uses.

Hydrology

As shown in Figure 4, the proposed Project intersects Redwood Creek and its tributary, Arroyo Ojo De Agua, at multiple locations. At Veteran's Boulevard, Redwood Creek appears as wide channel bordered by narrow strips of natural habitat. Elsewhere in the Project site, Redwood Creek and Arroyo Ojo De Agua are primarily underground and appear in a few locations as concrete-lined channels. Vegetation along these sections appears to be dominated by ornamental species associated with adjacent homes and businesses.

Land Cover and Wildlife

The entire BSA is comprised of Urban (URB) habitat in accordance with the California Wildlife Habitat Relationships System (CDFW 2025b; Mayer and Laudenslayer 1990). Urban is a developed habitat that typically includes five general types of vegetative structure: tree grove, street strip,

shade tree/lawn, lawn, and shrub cover. Plant species most often include horticultural plant varieties but may include a mix of native species.

Wildlife species commonly found in Urban habitats include a mix native and nonnative species such as mourning dove (*Zenaidura macroura*), house sparrow (*Passer domesticus*), European starling (*Sturnus vulgaris*), northern mockingbird (*Mimus polyglottos*), western scrub jay (*Aphelocoma californica*), California ground squirrels (*Otospermophilus beecheyi*), raccoon (*Procyon lotor*), and domestic cats and dogs.

SPECIAL-STATUS RESOURCES

Special-Status Plants and Animals

The literature review identified 49 special-status plant species and 39 special-status animal species known or with potential to occur in the vicinity of the Project (Attachment B). Of these, 23 special-status plants and 19 special-status animals were determined to have a low potential to occur.

The majority of the Project site consists of urban development that is unsuitable for most special-status species. The potential for special-status species is limited primarily to the natural habitat in and around Redwood Creek where it flows under Veteran's Boulevard. The Veteran's Boulevard bridge may also support special-status bat species. The potential for some special-status species to occur increases as the creek flows into the Bay, away from the Project site. Many recorded observations of special-status species are located in wetland and upland habitats in the Bay within 3 miles of the Project, but where human disturbance is lower than at the Veteran's Boulevard crossing.

Upstream of this location, much of Redwood Creek and Arroyo Ojo De Agua are underground with few scattered locations where it daylight. In those areas where the creeks are above ground, they are concrete-lined channels and vegetation is dominated by ornamentals associated with adjacent properties. The adjacent vegetation may support native bird nests protected under the Migratory Bird Treaty Act and California Fish and Game Code would nest in these areas, as well as many other trees throughout the Project site, but these creek sections would not support special-status species.

Additional review will be required to confirm the potential for special-status species to be present and impacted once the individual Project has been designed. Potential direct impacts to special-status species could include injury or death of a species. Potential indirect impacts could include loss of habitat or disruption of normal behaviors during construction that may lead to harm or death to adults and young. Impacts would occur during the construction phase and to be temporary.

Aquatic Resources and Sensitive Habitats

Redwood Creek and Arroyo Ojo De Agua, a tributary to Redwood Creek, flow through the Project area and into the Bay. The Project crosses the creeks at four locations:

- **Veteran's Boulevard at Redwood Creek:** A wide channelized feature with natural habitat on both banks.
- **1036 El Camino Real:** Arroyo Ojo De Agua flows above ground through a concrete canal at this location.
- **855 Jefferson Avenue:** Redwood Creek is underground at this location.
- **1039 Middlefield Road:** Redwood Creek is underground at this location.

The literature review also identified five sensitive natural communities known to occur within the vicinity of the Project: north central coast steelhead/sculpin stream, northern coastal salt marsh, serpentine bunchgrass, valley needlegrass grassland, and valley oak woodland. None of these are anticipated to be present in Redwood Creek at Veteran's Boulevard.

Redwood Creek is federally designated critical habitat for the southern distinct population segment of green sturgeon (*Acipenser medirostris* pop. 1) and is within the mapped essential fish habitat area for coho salmon (*Oncorhynchus kisutch*) and Chinook salmon (*Oncorhynchus tshawytscha*).

Additional review will be required to confirm the potential for sensitive natural communities to be present and impacted once the individual Project has been designed. Potential direct impacts to sensitive natural communities could include loss of habitat, which is expected to be temporary. No indirect impacts are anticipated.

Wildlife Movement

Wildlife movement corridors, also referred to as dispersal corridors or landscape linkages, are generally defined as linear features that enable animals to travel between different habitat or resource areas. Wildlife movement corridors can be large tracts of land connecting regionally important habitats that support wildlife in general, such as stop-over habitat that supports migrating birds or contiguous natural habitats that support animals with very large home ranges (e.g., coyotes [*Canis latrans*] or mule deer). They can also be small-scale movement corridors (e.g., riparian zones) that provide connectivity and cover to support movement at a local scale.

The Project site lacks corridors conducive to wildlife movement. Most of Redwood Creek is underground with small disconnected, channelized sections above ground. Where the creek empties into the Bay, it may support some highly localized movement but development upstream of Veteran's Boulevard provides a substantial barrier to wildlife moving further inland.

At creek crossings, the Project pipelines will be installed under the creeks via jack and bore or horizontal directional drilling, and no permanent above ground structures would be installed. As such, no impacts to wildlife movement are anticipated.

Local Policies and Ordinance

The Project appears to be outside of the jurisdiction of the San Francisco Bay Conservation and Development Commissions jurisdiction; however, this should be confirmed for the Project crossing Redwood Creek at Veteran's Boulevard because a permit may be required.

The Redwood City General Plan contains a variety of policies aimed at protection of natural resources. The Project is not expected to conflict with any of these policies.

The Redwood City municipal code includes a chapter for tree preservation (Chapter 35). The Project would install pipelines primarily within existing roadways; however, there may be a need to impact trees depending on the specific location of the pipelines, including where it will be installed under creeks and railroads. Compliance with this section of the municipal code, including acquisition of a tree permit if required, would have a less than significant impact on trees.

Adopted or Approved Plans

Pacific Gas & Electric Company (PG&E) has prepared a Bay Area Operations and Maintenance Habitat Conservation Plan (HCP), which was permitted in 2017. This HCP applies only to PG&E operations and maintenance activities and does not apply to the proposed Project. No impact would occur.

MITIGATION MEASURES

The following mitigation measures (MMs) are recommended:

Mitigation Measure BIO-1

Site-Specific Biological Resources Evaluation. Prior to commencement of work for any pipeline segment within 250 feet of Redwood Creek, the City of Redwood City (City) shall retain a qualified biologist to conduct a biological resources evaluation. The evaluation shall include a habitat assessment for special-status plants, wildlife, and riparian resources; and maps depicting the location of sensitive habitat features, including all habitats that could support special-status species. The evaluation shall include the proposed construction footprint plus a 250-foot buffer.

Based on the habitat assessment, the report shall identify which measures below shall be implemented. Protection measures shall be incorporated into the construction contract and/or construction plans. The report shall be submitted to the City for review and approval. No construction may proceed within 250 feet of Redwood Creek until the City approves the report.

Mitigation Measure BIO-2

Protocol-Level Special-Status Plant Surveys, Avoidance, and Habitat Protection. Prior to any ground disturbance, staging, bore-

pit excavation, or vegetation removal within 250 feet of Redwood Creek, the City shall implement the following:

- a. **Protocol-Level Plant Surveys.** The City shall retain a qualified botanist to conduct protocol-level floristic surveys for special-status plant species with potential to occur along Redwood Creek as identified in **Table 4.4.A**, including but not limited to:
- *Acanthomintha duttonii* (San Mateo thorn-mint)
 - *Allium peninsulare* var. *franciscanum* (Franciscan onion)
 - *Amsinckia lunaris* (bent-flowered fiddleneck)
 - *Astragalus pycnostachyus* var. *pycnostachyus* (coastal marsh milk-vetch)
 - *Chloropyron maritimum* ssp. *palustre* (Point Reyes salty bird's-beak)
 - *Cirsium fontinale* var. *fontinale* (fountain thistle)
 - *Fritillaria liliacea* (fragrant fritillary)
 - *Hesperolinon congestum* (Marin western flax)
 - *Lasthenia conjugens* (Contra Costa goldfields)
 - *Plagiobothrys chorisianus* var. *chorisianus* (Choris' popcornflower)
 - *Sagittaria sanfordii* (Sanford's arrowhead)
 - *Lessingia arachnoidea* (Crystal Springs lessingia)
 - *Spergularia macrotheca* var. *longistyla* (long-styled sand-spurrey)
 - *Suaeda californica* (California seablite)
 - *Trifolium amoenum* (two-fork clover)
 - *Trifolium buckwestiorum* (Santa Cruz clover)
 - *Trifolium hydrophilum* (saline clover)
 - *Triphysaria floribunda* (San Francisco owl's-clover)

Surveys shall follow California Department of Fish and Wildlife (CDFW) and California Native Plant Society (CNPS) botanical protocols, be floristic in nature, and be scheduled to coincide with the peak blooming periods for all target taxa. The botanist shall document their qualifications, all plant species observed, survey methods, mapped special-status populations, and photo

documentation. This report shall be submitted to the City no fewer than 30 calendar days before the City issues a Notice to Proceed for the relevant construction segment. If surveys detect special-status species or active use of the site by listed species, the City will implement avoidance and minimization measures identified by the botanist and coordinate with resource agencies as required; if surveys are negative, the survey report shall document the methods and conditions supporting the negative finding and submitted to the City.

If multiple blooming windows are required to cover all species, multiple surveys shall be conducted.

- b. **Avoidance Requirements.** If one or more special-status plant individuals or populations are detected the following performance standards shall be met to avoid impacts:
 - **Establish Environmentally Sensitive Areas (ESAs):** ESA fencing (orange exclusion fencing, wildlife-friendly fencing, or pin-flags depending on density and substrate) shall be installed around the outermost extent of each population, including a buffer sufficient to avoid indirect impacts such as soil compaction, hydrology changes, equipment intrusion, or shading.
 - **Prohibited Activities in ESAs:** No excavation, bore pit construction, spoils storage, laydown, staging, vehicle travel, or vegetation clearing may occur within ESAs.
 - **Relocation of Work Areas:** Jack-and-bore pits, horizontal directional drilling (HDD) staging areas, access paths, and storage locations shall be shifted outside ESA boundaries to the maximum extent feasible.
 - **Contractor Training:** All contractor personnel shall receive a biological resources orientation describing the ESA, species present, buffer restrictions, and penalties for ESA breach.
- c. **Minimization, Soil Handling, and Habitat Restoration (If Complete Avoidance Is Infeasible).** If avoidance is determined infeasible by the City and the qualified botanist:
 1. **Topsoil Salvage and Preservation:**

- The top 5 inches of occupied habitat shall be carefully removed using hand tools or low-impact excavation equipment.
- Soil shall be placed in weed-free containers, sealed, labeled, and stored in a protected location to preserve seedbank viability.
- Salvaged topsoil shall remain moist but not saturated and protected from erosion and cross-contamination.

2. Seedbank and Propagule Conservation:

- If feasible, the botanist shall collect mature seed heads, corms, or vegetative propagules of perennial taxa for use in post-construction restoration.

3. Restoration Plan Requirements:

- Following construction, salvaged soil shall be spread evenly over restored areas in consultation with the qualified botanist.
- A site-specific restoration plan shall include performance criteria (e.g., cover, density, species richness), monitoring for at least three growing seasons, invasive plant management, and remedial planting if success criteria are not met.

4. Compensatory Mitigation (If Impacts Are Permanent):

- If permanent impacts cannot be avoided, the City shall consult with CDFW and/or USFWS on species-specific compensatory mitigation, which may include off-site preservation, enhancement of riparian habitat, or conservation easements.

d. Reporting Requirements. Within 30 days of the final survey, the botanist shall prepare a Special-Status Plant Survey and Mitigation Implementation Report summarizing:

- Survey dates and methods
- Full plant species list

- Mapped populations
- ESA locations and fencing details
- Soil salvage locations and quantities
- Restoration methods
- Recommendations for additional protection measures

No construction may proceed within 250 feet of Redwood Creek until the City approves the report.

Mitigation Measure BIO-3

Bat Habitat Evaluation. Prior to initiation of construction activities at the Veterans Boulevard bridge over Redwood Creek, a qualified biologist with demonstrated experience in assessing trees, bridges, and buildings for bat roosts shall conduct a preconstruction survey to identify potential bat roosting habitat within 100 feet of the work area, including the bridge structures and adjacent features. Surveys shall occur no more than 30 days prior to the start of construction. The bat habitat evaluation shall include a daytime habitat assessments and, if suitable habitat is identified, one or more night emergence surveys using infrared, thermal, or acoustic monitoring methods as determined by the qualified biologist and consistent with CDFW guidance. If an active bat roost is identified, construction activities that could disturb the roost shall be avoided until appropriate avoidance and minimization measures are implemented. Disturbance of maternity roosts shall be prohibited during the maternity season (April 15 through September 1). If exclusion of non-maternity roosts is proposed, exclusion measures shall be implemented only outside of the maternity season and shall be conducted in accordance with CDFW guidance and under the supervision of the qualified bat biologist.

The qualified biologist shall prepare and implement a site-specific bat avoidance or exclusion plan, as necessary, which shall be subject to review and approval by the City prior to initiation of construction activities in the affected area.

If no active bat roosts are detected during preconstruction surveys, no further mitigation related to bats shall be required.

Mitigation Measure BIO-4

Construction Best Management Practices at Redwood Creek.

The contractor shall implement enhanced best management practices (BMPs) to avoid and minimize impacts on riparian habitat

and water quality when conducting any construction activities within 100 feet of Redwood Creek. At a minimum, the following measures shall be implemented:

1. **Fueling and Hazardous Materials Buffer:** All equipment refueling, fluid changes, lubrication, hazardous materials storage, and equipment maintenance shall occur at least 50 feet from the top of bank of Redwood Creek. Secondary containment, drip pans, and absorbent pads shall be used during all maintenance activities to prevent accidental releases.
2. **Spoil and Material Management:** All excavated soils, drilling spoils, and construction materials shall be stockpiled in designated upland locations outside the 50-foot buffer and shall be covered, contained, and bermed to prevent erosion or stormwater transport toward the creek. Spoils shall be placed on impervious or stabilized surfaces to minimize mobilization during rain events.
3. **Spill Prevention and Response:** Fully stocked spill response kits shall be staged at all bore-pit locations and within immediate access of drilling equipment. All personnel working within the creek buffer shall be trained in spill response procedures and emergency shutdown of equipment.
4. **Erosion and Sediment Control:** Prior to any ground-disturbing activity, the contractor shall install erosion and sediment control devices—such as fiber rolls, silt fencing, straw wattles, stabilized construction entrances, or water bars—consistent with the project’s Stormwater Pollution Prevention Plan (SWPPP). These devices shall be actively maintained, inspected daily during active construction, and after any rainfall event.
5. **Equipment Staging Setbacks:** Construction vehicles, heavy machinery, and laydown areas shall be staged a minimum of 50 feet from riparian vegetation, except where access within the buffer is explicitly required for trenchless construction setup and approved by the City.
6. **Protection of Riparian Vegetation:** No trimming, removal, or disturbance of riparian vegetation shall occur unless identified and approved in advance through biological evaluation. Protective ESA (Environmentally Sensitive Area) fencing shall be installed around all riparian vegetation not authorized for disturbance.

7. **Training and Communication:** The contractor shall ensure that all field personnel receive an environmental awareness briefing describing creek buffer requirements, BMP locations, and emergency procedures for avoiding contamination of riparian habitat.
8. **Monitoring / Verification Mechanism:** A qualified biologist or City-approved environmental monitor shall (1) verify installation of all BMPs prior to the start of ground disturbance; (2) conduct regular inspections—at least weekly during active construction and within 24 hours following storm events—to confirm that BMPs remain functional and in compliance; and (3) document all inspections in a monitoring log submitted to the City. Any deficiencies identified shall be corrected immediately, and the monitor shall have the authority to halt work if BMPs are not properly implemented or maintained.

A qualified biologist or City-approved environmental monitor shall (1) verify installation of all BMPs prior to the start of ground disturbance; (2) conduct regular inspections—at least weekly during active construction and within 24 hours following storm events—to confirm that BMPs remain functional and in compliance; and (3) document all inspections in a monitoring log submitted to the City. Any deficiencies identified shall be corrected immediately, and the monitor shall have the authority to halt work if BMPs are not properly implemented or maintained.

Mitigation Measure BIO-5

Frac-Out Contingency. Prior to initiating any jack-and-bore or horizontal directional drilling (HDD) activities beneath Redwood Creek, the contractor shall prepare and submit a comprehensive Frac-Out Prevention, Monitoring, and Response Plan to the City for review and approval. The plan shall describe site-specific measures to minimize the risk of inadvertent drilling fluid releases (frac-outs) and shall include, at a minimum: (1) detailed monitoring protocols for continuous observation of drilling pressures, drilling fluid returns, and surface conditions within and adjacent to the creek; (2) field procedures for rapid detection of frac-out indicators; (3) immediate shutdown and containment actions to be implemented in the event of a suspected or confirmed frac-out; (4) methods and materials for isolating and recovering released drilling fluids to prevent migration into aquatic or riparian habitats; (5) cleanup and site restoration procedures of affected areas to pre-construction conditions or better; and (6) clear communication and

reporting requirements, including notification of the City and relevant resource agencies, including, as applicable to the CDFW and the Regional Water Quality Control Board. All drilling fluids shall be composed of non-toxic materials, and any dyes used to aid detection shall be non-toxic, non-petroleum-based, and verified safe for aquatic species to ensure full protection of water quality and sensitive biological resources within Redwood Creek.

Prior to construction, the City shall review and approve the Frac-Out Prevention, Monitoring, and Response Plan and verify its inclusion in all construction contracts and field manuals. During construction, the City's biological monitor or construction inspector shall verify that all frac-out monitoring procedures, shutdown protocols, containment materials, and spill response equipment are present on site and implemented in accordance with the approved plan, including documentation of daily monitoring logs and any incidents requiring agency notification, which shall be retained by the City.

Mitigation Measure BIO-6

Pre-activity Nesting Bird Surveys. If Proposed Project activities are scheduled to occur during the avian nesting season (February 15 through August 31), a qualified biologist shall conduct pre-activity nesting bird surveys no more than 7 days prior to the start of construction. Surveys shall encompass the entire construction footprint and a minimum 250-foot buffer for passerines and other small birds, and a 500-foot buffer for raptors. The survey shall identify all active nests, nesting behaviors, and territorial displays.

If no active nests are observed, the biologist shall document the findings, and no further action is required.

If any active nests are identified during the survey or encountered at any point during construction, the biologist shall establish a species-appropriate no-disturbance buffer—typically ranging from 50 to 350 feet, depending on species sensitivity, nest location, visibility, ambient noise levels, and the type of construction activity proposed. These buffers shall be clearly demarcated and shall remain in place until the biologist determines that the young have fledged and the nest is no longer active.

Construction activities that must occur within reduced buffers may proceed only under direct guidance and approval of the qualified biologist, with concurrence of the City, who shall implement additional protective measures as needed to avoid nest abandonment or take. The biologist shall have the authority to halt or modify construction activities immediately if nesting adults

exhibit signs of stress, disturbance, or nest abandonment, or if new nests are discovered.

Prior to construction, the City shall verify receipt and approval of the nesting bird survey report documenting survey timing, methods, and findings, including mapped nest locations (if any) and prescribed buffers.

The City's environmental monitor or qualified biologist shall conduct routine site checks—at least weekly during the nesting season or more frequently if nests are present—to confirm that exclusion buffers remain intact and construction activities comply with the measure.

Any nest discoveries, behavioral concerns, buffer modifications, or corrective actions shall be documented in a Nesting Bird Monitoring Log, submitted to the City at intervals specified in contract documents.

Construction shall not proceed in buffered areas until the biologist provides written verification that the nest is inactive.

Mitigation Measure BIO-7

Compliance with BCDC Jurisdictional Requirements. Prior to initiating any construction activities within 100 feet of the tidally influenced portion of Redwood Creek, the City shall complete a San Francisco Bay Conservation and Development Commission (BCDC) jurisdictional determination to evaluate whether the proposed work—including but not limited to jack-and-bore or horizontal directional drilling, staging, vegetation trimming, or installation of erosion control—occurs within the BCDC shoreline band or otherwise falls under BCDC jurisdiction. If any portion of the Proposed Project is subject to BCDC authority, the City or contractor shall obtain all required BCDC permits, authorizations or letters of consistency before construction. All BCDC permit conditions, avoidance measures, BMPs, reporting requirements, and post-construction restoration obligations imposed by BCDC shall be incorporated into Proposed Project construction documents, work plans, and the Mitigation Monitoring and Reporting Program (MMRP) and implemented throughout construction.

To ensure timely implementation and enforceability, the City shall incorporate these measures into all Proposed Project contract documents and specifications. The City shall confirm completion of the jurisdictional evaluation and receipt of any required BCDC permits prior to issuing a Notice to Proceed for any construction

segment. A City inspector or qualified environmental monitor shall verify compliance with all BCDC permit conditions during construction, verify installation of required BMPs, ESAs and monitoring equipment prior to ground disturbance, shall inspect compliance at the frequency specified in the MMRP, and shall have the authority to stop work immediately upon any observed non-compliance and the ability to withhold subsequent Notices to Proceed until outstanding corrective actions are completed and verified. All monitoring activities shall be documented in the Proposed Project's environmental compliance record.

This concludes the evaluation of biological resources with potential to occur in the Project area. For questions, please contact Carie Wingert at carie.wingert@lsa.net or (510) 231-7711 or Dena Giacomini at dena.giacomini@lsa.net or (805) 316-7550.

Sincerely,

LSA Associates, Inc.



Carie Wingert
Associate/Senior Biologist

Attachments: A – References
B – Figures
C – Special-Status Species in the Vicinity of the Project

ATTACHMENT A

REFERENCES

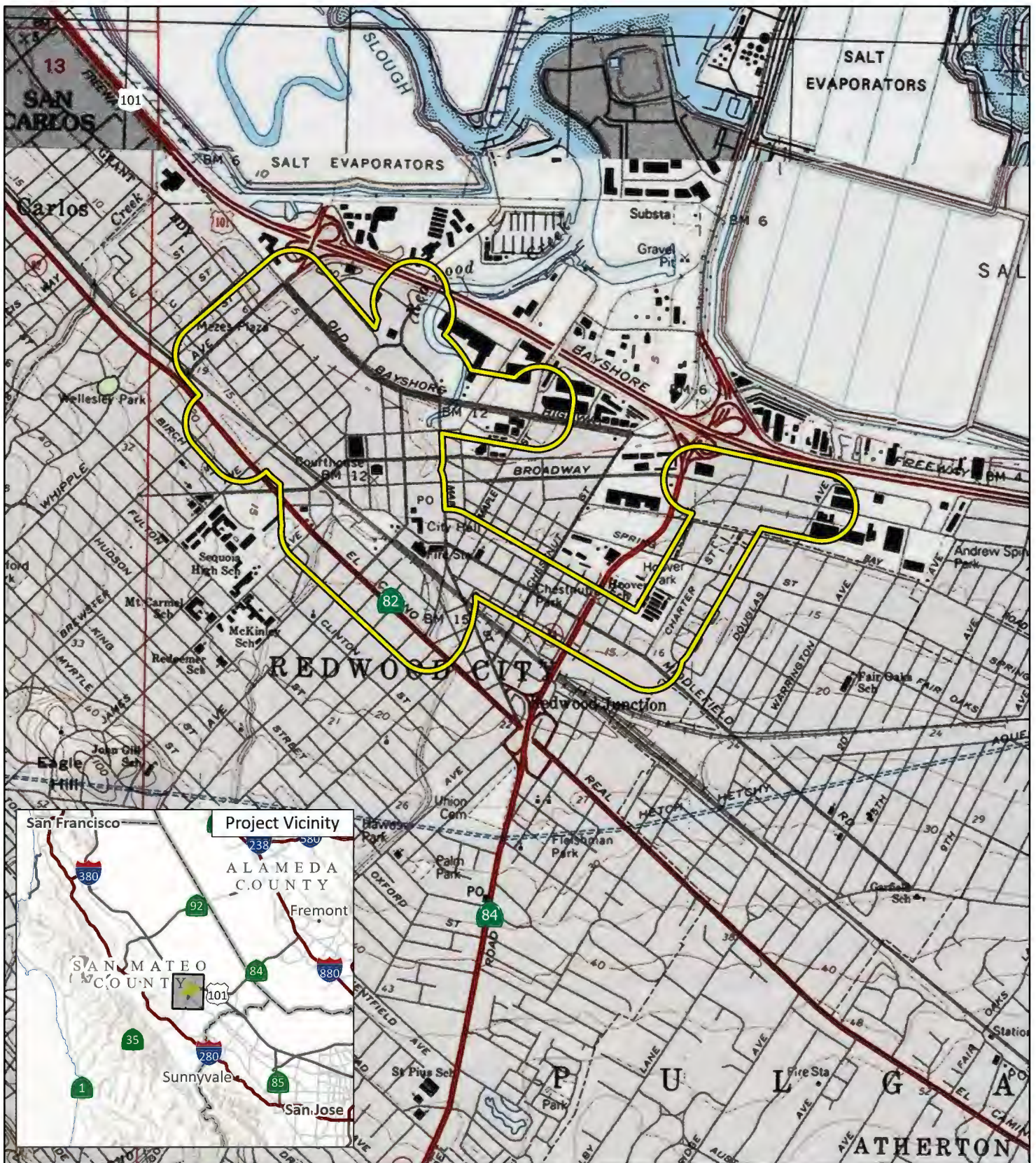
- California Department of Fish and Wildlife (CDFW). 2025a. California Natural Diversity Database (CNDDDB) – Commercial version dated September 2, 2025. Website: <https://map.dfg.ca.gov/rarefind/view/RareFind.aspx> (accessed September 2025).
- _____. 2024b. Biogeographic Information and Observation System (BIOS). Website: www.wildlife.ca.gov/data/BIOS (accessed September 2025).
- California Native Plant Society (CNPS). 2025. Inventory of Rare and Endangered Plants. V.7-08c-Interim 8-22-02. Website: www.rareplants.cnps.org (accessed September 2025).
- Chan, Y. and H. Spautz. 2008. Alameda Song Sparrow (*Melospiza melodia pusillula*). Pages 163-166 in: Shuford, W. D., and Gardali, T., editors. 2008. California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento.
- Gardali, T. and J. Evens. 2008. San Francisco Common Yellowthroat (*Geothlypis trichas sinuosa*). Pages 346-350 in: Shuford, W. D., and Gardali, T., editors. 2008. California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento.
- Google LLC. 2025. Google Earth Pro.
- Mayer, K.E., and W.F. Laudenslayer, Jr. 1990. *A guide to wildlife habitat of California*. State of California, Resources Agency, Department of Fish and Wildlife. Sacramento, CA 166 pp.
- Molina, K. 2008. Black Skimmer (*Rynchops niger*). Pages 163-166 in: Shuford, W. D., and Gardali, T., editors. 2008. California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento.
- National Environmental Title Research LLC (NETR). 2024. Historic Aerials. Website: <https://www.historicaerials.com/viewer> (accessed September 2025)

- Natural Resources Conservation Service (NRCS). 2025. Web Soil Survey. Soil Survey Area: San Mateo County, Eastern Part, and San Francisco County, California (CA689). Soil Survey Data: Spatial Data Version 7, September 14, 2022. USDA Natural Resources Conservation Service. Website: <https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm> (accessed September 2025).
- Sterling, J. 2008. Yellow Rail (*Coturnicops noveboracensis*). Pages 163-166 in: Shuford, W. D., and Gardali, T., editors. 2008. California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento.
- United States Fish and Wildlife Service (USFWS). 2025a. Critical Habitat Portal. Website: <https://ecos.fws.gov/ecp/report/table/critical-habitat.html> (accessed September 2025).
- _____. 2025b. Information for Planning and Consultation online Project planning tool. Website: <https://ecos.fws.gov/ipac/> (accessed September 2025).
- _____. 2025c. National Wetlands Inventory Wetlands Mapper. Website: <https://www.fws.gov/wetlands/data/mapper.html> (accessed September 2025).
- United States Geological Survey (USGS). 2025. National Hydrography Dataset. Website: <https://www.usgs.gov/core-science-systems/ngp/national-hydrography> (accessed September 2025).
- Zeiner, D., W.F. Laudenslayer, Jr., and K.E. Mayer. 1990. *California's Wildlife. California Statewide Wildlife Habitat Relationship System, Volumes I, II, & III*, with online updates. California Department of Fish and Wildlife. May.

ATTACHMENT B

FIGURES

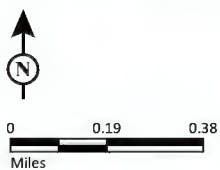
- Figure 1: Project Location and Vicinity
- Figure 2: Proposed Phase 2 Recycled Water System Expansion
- Figure 3: Biological Study Area
- Figure 4: NWI and NHD Records of Aquatic Resources



 Project Location

FIGURE 1

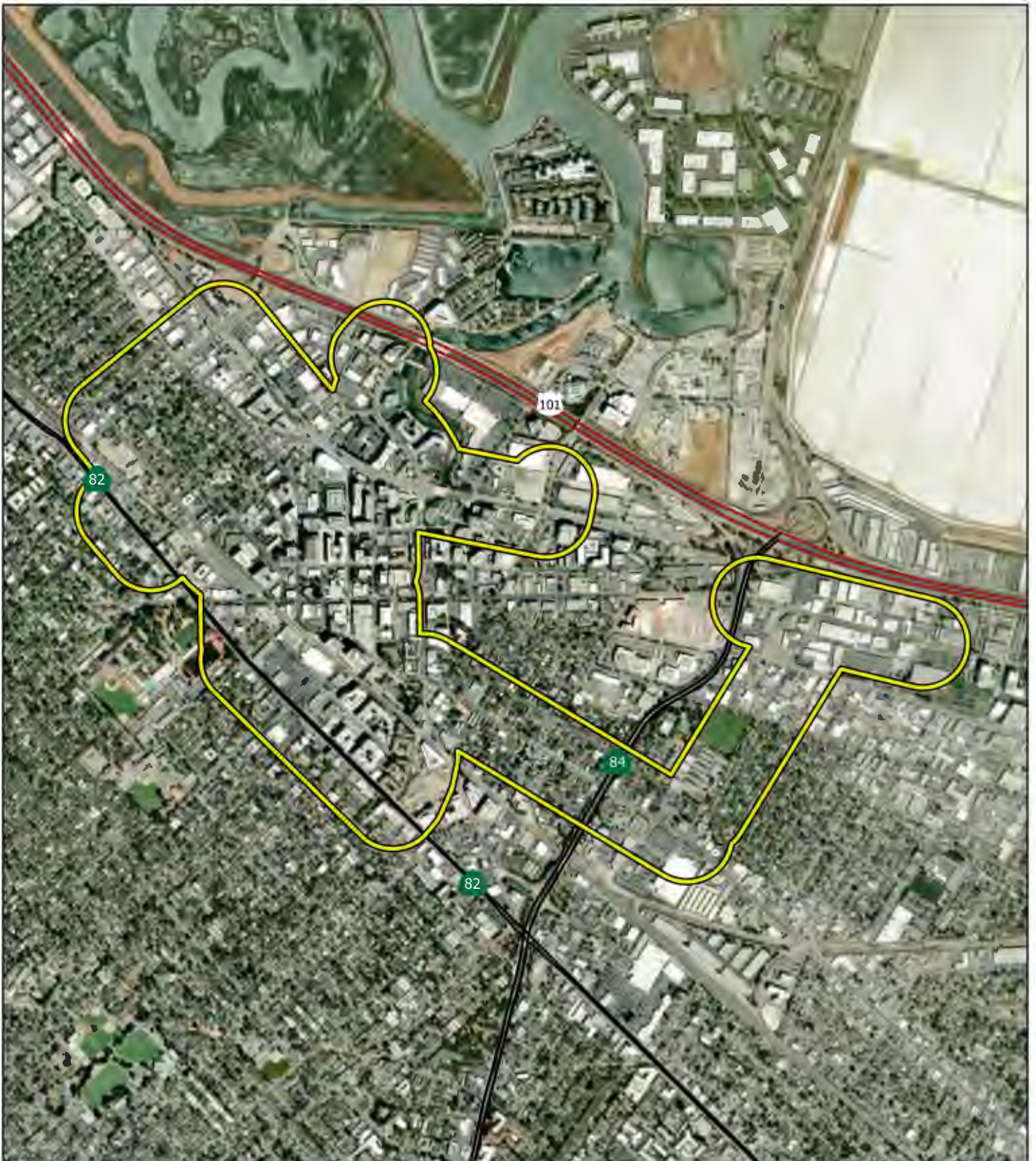
LSA



Redwood City Recycled Water Master Plan
Project Location and Vicinity

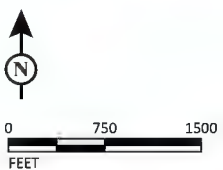
SOURCE: USGS 7.5' Quad: Pala Alta (1991), Redwood Point (1993), CA

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 Biological Study Area

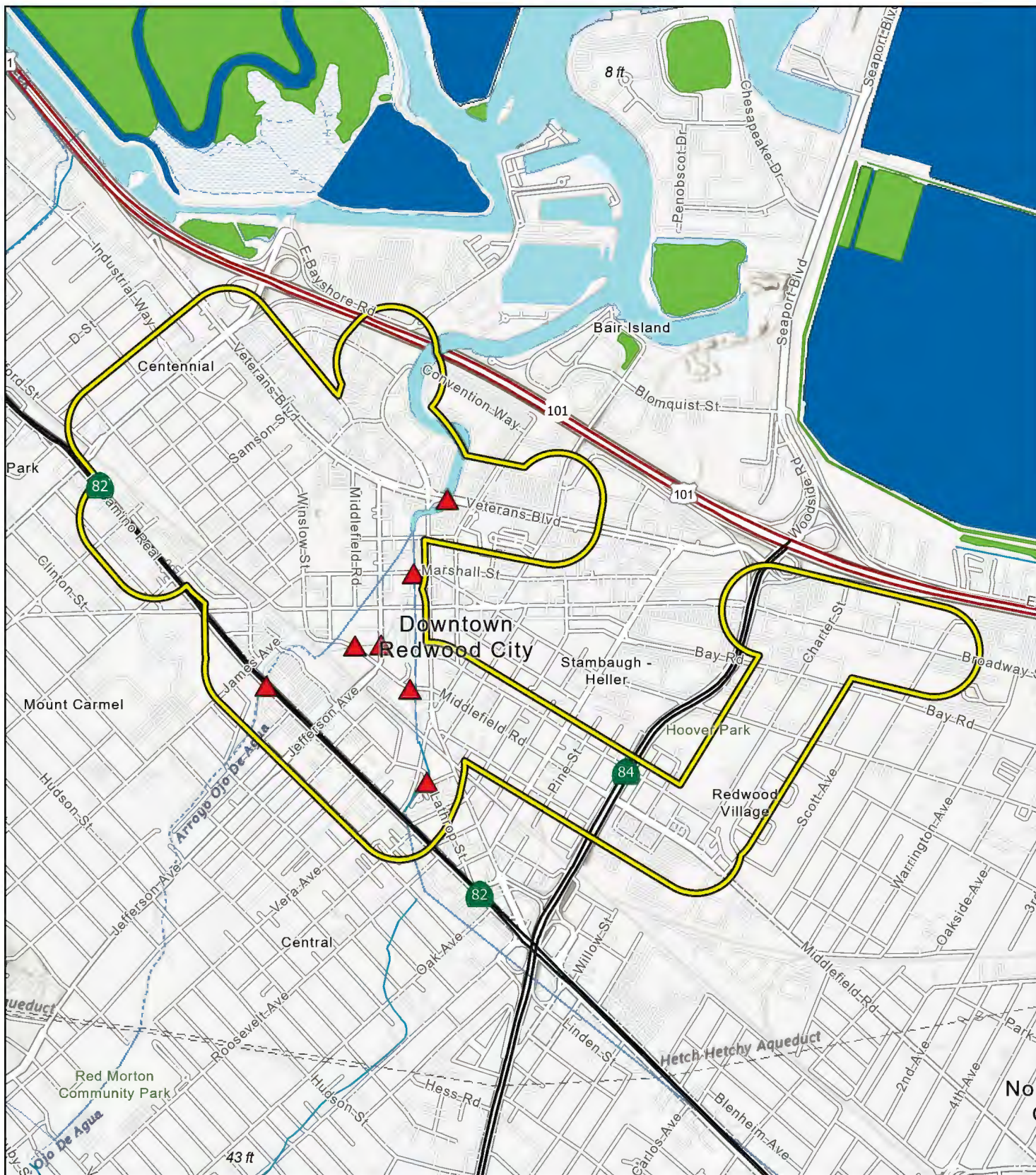
FIGURE 3



SOURCE: ESRI Maxar (2024)

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Recycled Water Phase 2 Master Plan Project
Biological Study Area



LSA

Project Location

Creek Crossing

Estuary

Marsh, Swamp, Bog, Prairie

River

Lake, Reservoir



0 750 1500
FEET

FIGURE 4

Recycled Water Phase 2 Master Plan Project
NWI and NHD Records of Aquatic Resources

SOURCE: ESRI Topography

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ATTACHMENT C

SPECIAL-STATUS SPECIES IN THE VICINITY OF THE PROJECT

Special-Status Species in the Vicinity of the Project

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
Plants				
<i>Acanthomintha duttonii</i> San Mateo thorn-mint	US: E CA: E CRPR: 1B.1	Annual herb; blooms April–June; chaparral, valley and foothill grassland; elevation from 165 to 985 feet; San Mateo County.	Yes	Nearest recorded occurrence approximately 4 miles to the south from 1977 and likely extirpated (EONDX 18112). Nearly all of Project site is urban and below the species known elevational range. Occurrence would likely be limited to the Redwood Creek area.
<i>Allium peninsulare</i> var. <i>franciscanum</i> Franciscan onion	US: — CA: — CRPR: 1B.2	Perennial bulbiferous herb; blooms (April) May–June; cismontane woodland, valley and foothill grassland; elevation from 170 to 1,000 feet; Mendocino, Napa, Santa Clara, San Mateo, and Sonoma counties.	Yes	Nearest recorded occurrence approximately 4 miles to west at Eaton Park from 2015 and presumed extant (EONDX 110307). Nearly all of Project site is urban and below the species known elevational range. Occurrence would likely be limited to the Redwood Creek area.
<i>Amsinckia lunaris</i> bent-flowered fiddleneck	US: — CA: — CRPR: 1B.2	Annual herb; blooms March–June; cismontane woodland, coastal bluff scrub, valley and foothill grassland; elevation from 10 to 1,640 feet; Alameda, Contra Costa, Colusa, Lake, Marin, Napa, Santa Clara, Santa Cruz, San Francisco, San Mateo, Sonoma, Sutter, and Yolo counties.	Yes	Historic record from 1933 in downtown Redwood City area (EONDX 109711). Nearly all of Project site is urban. Occurrence would likely be limited to the Redwood Creek area.
<i>Arctostaphylos andersonii</i> Anderson's manzanita	US: — CA: — CRPR: 1B.2	Perennial evergreen shrub; blooms November–May; broadleaved upland forest, chaparral, North Coast coniferous forest; elevation from 195 to 2,495 feet; Santa Clara, Santa Cruz, and San Mateo counties.	No	No suitable habitat present. Nearly all of Project site is urban with limited native habitat along Redwood Creek outlet to bay. No recorded occurrences within 5 miles.
<i>Arctostaphylos regismontana</i> Kings Mountain manzanita	US: — CA: — CRPR: 1B.2	Perennial evergreen shrub; blooms December–April; broadleaved upland forest, chaparral, North Coast coniferous forest; elevation from 1000 to 2395 feet; Santa Clara, Santa Cruz, and San Mateo counties.	No	No suitable habitat present. Nearly all of Project site is urban with limited native habitat along Redwood Creek outlet to bay. Nearest recorded occurrence approximately 6 miles southwest at Edwood Park Natural Preserve (EONDX 93149).
<i>Astragalus pycnostachyus</i> var. <i>pycnostachyus</i> coastal marsh milk-vetch	US: — CA: — CRPR: 1B.2	Perennial herb; blooms (April–May) June–October; coastal dunes (mesic), coastal scrub, marshes, and swamps (coastal salt, streamsides); elevation from 0 to 180 feet; Humboldt, Marin, and San Mateo counties.	Yes	Nearly all of Project site is urban. Occurrence would likely be limited to the Redwood Creek area. No recorded occurrences within 5 miles.

Special-Status Species in the Vicinity of the Project

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
<i>Astragalus tener</i> var. <i>tener</i> alkali milk vetch	US: — CA: — CRPR: 1B.2	Annual herb; blooms March–June; playas, valley and foothill grassland (adobe clay), vernal pools; elevation from 5 to 195 feet; Alameda, Contra Costa, Merced, Monterey, Napa, San Benito, Santa Clara, San Francisco, San Joaquin, Solano, Sonoma, Stanislaus, and Yolo counties.	No	No suitable soils present. Nearly all of Project site is urban with limited native habitat along Redwood Creek outlet to bay. No recorded occurrences within 5 miles.
<i>Centromadia parryi</i> ssp. <i>congdonii</i> Congdon's tarplant	US: — CA: — CRPR: 1B.1	Annual herb; blooms (April) May–October (November); valley and foothill grassland (alkaline); elevation from 0 to 755 feet; Alameda, Contra Costa, Monterey, Santa Clara, Santa Cruz, San Luis Obispo, San Mateo, and Solano counties.	No	No suitable soils present. Nearly all of Project site is urban with limited native habitat along Redwood Creek outlet to bay. No recorded occurrences within 5 miles.
<i>Chloropyron maritimum</i> ssp. <i>palustre</i> Point Reyes salty bird's-beak	US: — CA: — CRPR: 1B.2	Annual herb (hemiparasitic); blooms June–October; marshes and swamps (coastal salt); elevation from 0 to 35 feet; Alameda, Humboldt, Marin, Santa Clara, San Francisco, San Luis Obispo, San Mateo, and Sonoma counties.	Yes	Documented less than 1 mile in salt marshes northeast of the Project site (EONDX 42160). Nearly all of Project site is urban. Occurrence would likely be limited to the Redwood Creek area.
<i>Cirsium fontinale</i> var. <i>fontinale</i> fountain thistle	US: E CA: E CRPR: 1B.1	Perennial herb; blooms (April) May–October; chaparral (openings), cismontane woodland, meadows and seeps, valley and foothill grassland; elevation from 150 to 575 feet; San Mateo County.	Yes	Nearest recorded occurrence approximately 3.5 miles to southwest at Stulsaft Park from 2015 and presumed extant (EONDX 110307). Nearly all of Project site is urban and below the species known elevational range. Occurrence would likely be limited to the Redwood Creek area.
<i>Cirsium praeteriens</i> lost thistle	US: — CA: — CRPR: 1A	Perennial herb; blooms June–July; habitat unknown – presumed extinct; elevation from 0 to 330 feet; Santa Clara and San Mateo counties.	No	Nearly all of Project site is urban with limited native habitat along Redwood Creek outlet to bay. Historic record from 1901 in Palo Alto area based on collection notes that lacked detail (EONDX 27370).
<i>Collinsia corymbosa</i> round-headed collinsia	US: — CA: — CRPR: 1B.2	Annual herb; blooms April–June; coastal dunes; elevation from 0 to 65 feet; Humboldt, Mendocino, Marin, Santa Clara, San Francisco, and San Mateo counties.	No	No dune habitat present. Nearly all of Project site is urban with limited native habitat along Redwood Creek outlet to bay. One recorded occurrence within 5 miles is from 1893 and categorized as extirpated (EONDX 104429).

Special-Status Species in the Vicinity of the Project

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
<i>Collinsia multicolor</i> San Francisco collinsia	US: — CA: — CRPR: 1B.2	Annual herb; blooms (February) March–May; closed-cone coniferous forest, coastal scrub; elevation from 100 to 900 feet; Monterey, Marin, Santa Clara, Santa Cruz, San Francisco and San Mateo counties.	No	No suitable habitat present. Nearly all of Project site is urban with limited native habitat along Redwood Creek outlet to bay. Nearest recorded occurrence approximately 5 miles to southeast from 1903 in the Stanford University area (EONDX 56864).
<i>Dirca occidentalis</i> western leatherwood	US: — CA: — CRPR: 1B.2	Perennial deciduous shrub; blooms January–March (April); broadleaved upland forest, chaparral, cismontane woodland, closed-cone coniferous forest, North Coast coniferous forest, riparian forest, riparian woodland; elevation from 80 to 1,395 feet; Alameda, Contra Costa, Marin, Santa Clara, San Mateo, and Sonoma counties.	Yes	Nearly all of Project site is urban with limited native habitat along Redwood Creek outlet to bay. Multiple records to the west and south in hill/mountain areas that are largely undeveloped.
<i>Eriophyllum latilobum</i> San Mateo woolly sunflower	US: E CA: E CRPR: 1B.1	Perennial herb; blooms May–June; cismontane woodland (often serpentinite, roadcuts), coastal scrub, lower montane coniferous forest; elevation from 150 to 1,085 feet; San Mateo County.	No	No suitable soils present. Nearly all of Project site is urban with limited native habitat along Redwood Creek outlet to bay. No recorded occurrences within 5 miles.
<i>Eryngium aristulatum</i> var. <i>hooveri</i> Hoover's button-celery	US: — CA: — CRPR: 1B.1	Annual/perennial herb; blooms (June) July (August); vernal pools; elevation from 10 to 150 feet; Alameda, San Benito, Santa Clara, San Luis Obispo, and San Mateo counties.	No	No suitable soils present. Nearly all of Project site is urban with limited native habitat along Redwood Creek outlet to bay. No records within 5 miles.
<i>Eryngium jepsonii</i> Jepson's coyote-thistle	US: — CA: — CRPR: 1B.2	Perennial herb; blooms April–August; valley and foothill grassland, vernal pools; clay soils; elevation from 10 to 985 feet; Alameda, Contra Costa, Napa, San Mateo, Solano, and Yolo counties.	No	No suitable soils present. Nearly all of Project site is urban with limited native habitat along Redwood Creek outlet to bay. No records within 5 miles.
<i>Fritillaria biflora</i> var. <i>ineziana</i> Hillsborough chocolate lily	US: — CA: — CRPR: 1B.1	Perennial bulbiferous herb; blooms March–April; cismontane woodland, valley and foothill grassland; serpentine; elevation from 490 to 490 feet; San Mateo County.	No	No suitable soils present. Nearly all of Project site is urban with limited native habitat along Redwood Creek outlet to bay. Nearest recorded occurrence location is suppressed (EONDX 1675).

Special-Status Species in the Vicinity of the Project

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
<i>Fritillaria liliacea</i> fragrant fritillary	US: — CA: — CRPR: 1B.2	Perennial bulbiferous herb; blooms February–April; cismontane woodland, coastal prairie, coastal scrub, valley and foothill grassland; elevation from 10 to 1,345 feet; Alameda, Contra Costa, Monterey, Marin, San Benito, Santa Clara, San Francisco, San Mateo, Solano, and Sonoma counties.	Yes	Nearly all of Project site is urban. Occurrence would likely be limited to the Redwood Creek area. Nearest recorded occurrence approximately 3.75 miles to the south at Edgewood Park Natural Preserve from 2015 and presumed extant (EONDX 17657).
<i>Hesperervax sparsiflora</i> var. <i>brevifolia</i> short-leaved evax	US: — CA: — CRPR: 1B.2	Annual herb; blooms March–June; coastal bluff scrub (sandy), coastal dunes, coastal prairie; elevation from 0 to 705 feet; Del Norte, Humboldt, Mendocino, Marin, Santa Cruz, San Francisco, San Mateo, and Sonoma counties.	No	No suitable soils present. Nearly all of Project site is urban with limited native habitat along Redwood Creek outlet to bay. No recorded occurrences within 5 miles.
<i>Hesperolinon congestum</i> Marin western flax	US: T CA: T CRPR: 1B.1	Annual herb; blooms April–July; chaparral, valley and foothill grassland; elevation from 15 to 1,215 feet; Marin, San Francisco, and San Mateo counties.	Yes	Nearly all of Project site is urban. Occurrence would likely be limited to the Redwood Creek area. Nearest recorded occurrence approximately 2.3 miles to the south at Stulsaft Park from 2007 and presumed extant (EONDX 70639).
<i>Lasthenia conjugens</i> Contra Costa goldfields	US: E CA: — CRPR: 1B.1	Annual herb; blooms March–June; cismontane woodland, playas (alkaline), valley and foothill grassland, vernal pools; elevation from 0 to 1,540 feet; Alameda, Contra Costa, Mendocino, Monterey, Marin, Napa, Santa Barbara, Santa Clara, Solano, and Sonoma counties.	Yes	Nearly all of Project site is urban. Occurrence would likely be limited to the Redwood Creek area. No records within 5 miles.
<i>Legenere limosa</i> legenere	US: — CA: — CRPR: 1B.1	Annual herb; blooms April–June; vernal pools; elevation from 5 to 2,885 feet; Alameda, Lake, Monterey, Napa, Placer, Sacramento, Santa Clara, Shasta, San Joaquin, San Mateo, Solano, Sonoma, Stanislaus, Tehama, and Yuba counties.	No	No suitable soils present. Nearly all of Project site is urban with limited native habitat along Redwood Creek outlet to bay. No recorded occurrences within 5 miles.
<i>Lessingia arachnoidea</i> Crystal Springs lessingia	US: — CA: — CRPR: 1B.2	Annual herb; blooms July–October; cismontane woodland, coastal scrub, valley and foothill grassland; elevation from 195 to 655 feet; San Mateo and Sonoma counties.	Yes	Nearly all of Project site is urban. Occurrence would likely be limited to the Redwood Creek area. Nearest recorded occurrence approximately 4 miles to the southwest just west of Edgewood Park Natural Preserve from 2001 and presumed extant (EONDX 1262).

Special-Status Species in the Vicinity of the Project

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
<i>Malacothamnus arcuatus</i> var. <i>arcuatus</i> arcuate bushmallow	US: — CA: — CRPR: 1B.2	Perennial deciduous shrub; blooms April–September; chaparral, cismontane woodland; elevation from 50 to 1,165 feet; Santa Clara, Santa Cruz, and San Mateo counties.	No	No suitable soils present. Nearly all of Project site is urban with limited native habitat along Redwood Creek outlet to bay. Nearest recorded occurrence approximately 3 miles to the west from 2004 and presumed extant (EONDX 55922).
<i>Monolopia gracilens</i> woodland woollythreads	US: — CA: — CRPR: 1B.2	Annual herb; blooms (February) March–July; broadleaved upland forest (openings), chaparral (openings), cismontane woodland, North Coast coniferous forest (openings), valley and foothill grassland; elevation from 330 to 3,935 feet; Alameda, Contra Costa, Monterey, San Benito, Santa Clara, Santa Cruz, San Luis Obispo, and San Mateo counties.	Yes	Nearly all of Project site is urban and below the species known elevational range. Occurrence would likely be limited to the Redwood Creek area. Nearest recorded occurrence approximately 3.75 miles to the south at Edgewood Park Natural Preserve from 2023 and presumed extant (EONDX 80183).
<i>Pentachaeta bellidiflora</i> white-rayed pentachaeta	US: E CA: E CRPR: 1B.1	Annual herb; blooms March–May; cismontane woodland, valley and foothill grassland (often serpentine); elevation from 115 to 2,035 feet; Marin, Santa Cruz, and San Mateo counties.	No	No suitable soils present. Nearly all of Project site is urban with limited native habitat along Redwood Creek outlet to bay. Nearest recorded occurrence approximately 3.75 miles to the south at Edgewood Park Natural Preserve from 2004 and presumed extant (EONDX 27386).
<i>Plagiobothrys chorisianus</i> var. <i>chorisianus</i> Choris' popcornflower	US: — CA: — CRPR: 1B.2	Annual herb; blooms March–June; chaparral, coastal prairie, coastal scrub; elevation from 10 to 525 feet; Alameda, Monterey, Santa Clara, Santa Cruz, San Francisco, and San Mateo counties.	Yes	Nearly all of Project site is urban. Occurrence would likely be limited to the Redwood Creek area. Nearest recorded occurrence approximately 5 miles to the west from 1985 and presumed extant (EONDX 57046).
<i>Sagittaria sanfordii</i> Sanford's arrowhead	US: — CA: — CRPR: 1B.2	Perennial rhizomatous herb (emergent); blooms May–October (November); marshes and swamps (shallow freshwater); elevation from 0 to 2,135 feet; Butte, Del Norte, El Dorado, Fresno, Kings, Los Angeles, Madera, Merced, Mariposa, Marin, Napa, Orange, Sacramento, San Bernardino, Santa Clara, Shasta, San Joaquin, San Mateo, Solano, Sutter, Tehama, Tulare, Ventura, and Yuba counties.	Yes	Nearly all of Project site is urban. Occurrence would likely be limited to the Redwood Creek area. No records within 5 miles.

Special-Status Species in the Vicinity of the Project

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
<i>Senecio aphanactis</i> chaparral ragwort	US: — CA: — CRPR: 2B.2	Annual herb; blooms January–April (May); chaparral, cismontane woodland, coastal scrub; elevation from 50 to 2,625 feet; Alameda, Contra Costa, Fresno, Los Angeles, Merced, Monterey, Orange, Riverside, Santa Barbara, San Bernardino, San Benito, Santa Clara, Santa Cruz, San Diego, San Francisco, San Luis Obispo, San Mateo, Solano, Tulare, and Ventura counties.	Yes	Nearly all of Project site is urban. Occurrence would likely be limited to the Redwood Creek area. Nearest recorded occurrence approximately 3.5 miles to the west from 1973 and is presumed extant (EONDX 107762).
<i>Silene verecunda</i> ssp. <i>verecunda</i> San Francisco campion	US: — CA: — CRPR: 1B.2	Perennial herb; blooms (February) March–July (August); chaparral, coastal bluff scrub, coastal prairie, coastal scrub, valley and foothill grassland; elevation from 100 to 2,115 feet; Santa Cruz, San Francisco, and San Mateo counties.	Yes	Nearly all of Project site is urban and below the species known elevational range. Occurrence would likely be limited to the Redwood Creek area. Nearest recorded occurrence approximately 3.5 miles to the southwest at Edgewood Park from 1988 in and possibly extirpated (EONDX 21263).
<i>Spergularia macrotheca</i> var. <i>longistyla</i> long-styled sand-spurrey	US: — CA: — CRPR: 1B.2	Perennial herb; blooms February–May; marshes and swamps, meadows and seeps; elevation from 0 to 835 feet; Alameda, Contra Costa, Napa, and Solano counties.	Yes	Nearly all of Project site is urban. Occurrence would likely be limited to the Redwood Creek area. No records within 5 miles.
<i>Stuckenia filiformis</i> ssp. <i>alpina</i> northern slender pondweed	US: — CA: — CRPR: 2B.2	Perennial rhizomatous herb (aquatic); blooms May–July; marshes and swamps (shallow freshwater); elevation from 985 to 7,055 feet; Alameda, Butte, Contra Costa, El Dorado, Lassen, Merced, Mono, Modoc, Mariposa, Placer, Santa Clara, Shasta, Sierra, San Mateo, Solano, and Sonoma counties.	Yes	Nearly all of Project site is urban. Occurrence would likely be limited to the Redwood Creek area, but area is well below known elevation. Nearest recorded occurrence approximately 5 miles to the southeast in the Palo Alto area from 1899 but presumed extant (EONDX 838).
<i>Suaeda californica</i> California seablite	US: E CA: — CRPR: 1B.1	Perennial evergreen shrub; blooms July–October; marshes and swamps (coastal salt); elevation from 0 to 50 feet; Alameda, Contra Costa, Santa Clara, San Francisco, and San Luis Obispo counties.	Yes	Nearly all of Project site is urban. Occurrence would likely be limited to the Redwood Creek area. No records within 5 miles.

Special-Status Species in the Vicinity of the Project

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
<i>Trifolium amoenum</i> two-fork clover	US: E CA: — CRPR: 1B.1	Annual herb; blooms April–June; coastal bluff scrub, valley and foothill grassland (sometimes serpentinite); elevation from 15 to 1,360 feet; Marin, Napa, San Mateo, Solano, and Sonoma counties.	Yes	Nearly all of Project site is urban. Occurrence would likely be limited to the Redwood Creek area. Nearest recorded occurrence is over 5 miles to the south in San Francisquito Creek and is presumed extant (EONDX 84558).
<i>Trifolium buckwestiorum</i> Santa Cruz clover	US: — CA: — CRPR: 1B.1	Annual herb; blooms April–October; broadleaved upland forest, cismontane woodland, coastal prairie; margins; elevation from 115 to 2,000 feet; Mendocino, Monterey, Santa Clara, Santa Cruz, San Mateo, and Sonoma counties.	Yes	Nearly all of Project site is urban. Occurrence would likely be limited to the Redwood Creek area. No records within 5 miles.
<i>Trifolium hydrophilum</i> Saline clover	US: — CA: — CRPR: 1B.2	Annual herb; blooms April–June; marshes and swamps, valley and foothill grassland (mesic, alkaline), vernal pools; elevation from 0 to 985 feet; Alameda, Contra Costa, Lake, Mendocino, Monterey, Napa, Sacramento, San Benito, Santa Clara, Santa Cruz, San Joaquin, San Luis Obispo, San Mateo, Solano, Sonoma, and Yolo counties.	Yes	Nearly all of Project site is urban. Occurrence would likely be limited to the Redwood Creek area. Nearest recorded occurrence approximately 5 miles to the north from 1886 and presumed extant (EONDX 49393).
<i>Triphysaria floribunda</i> San Francisco owl's-clover	US: — CA: — CRPR: 1B.2	Annual herb; blooms April–June; coastal prairie, coastal scrub, valley and foothill grassland; elevation from 35 to 525 feet; Marin, San Francisco, and San Mateo counties.	Yes	Nearly all of Project site is urban. Occurrence would likely be limited to the Redwood Creek area. Nearest recorded occurrence approximately 5 miles to the northwest from 1932 and considered extirpated (EONDX 71649).
Fish				
<i>Acipenser medirostris</i> pop. 1 green sturgeon – southern DPS	US: T CA: SSC	Spawns in the Sacramento, Feather, and Yuba rivers. Presence in upper Stanislaus and San Joaquin rivers may indicate spawning. Nonspawning adults occupy marine/estuarine waters. Delta Estuary is important for rearing juveniles. Spawning occurs primarily in cool (~55° Fahrenheit) sections of mainstem rivers in deep pools (~26 feet) with substrate containing small to medium sized sand, gravel, cobble, or boulders.	Yes	Redwood Creek downstream of Veteran's Boulevard is mapped as critical habitat.

Special-Status Species in the Vicinity of the Project

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
<i>Oncorhynchus kisutch</i> pop. 2 coho salmon – central California coast ESU	US: E CA: E	Clear, cool, sediment-free rivers and streams with gravel and deep pools formed of large woody debris and shaded by riparian trees and shrubs; absent when water average weekly water temperature is 65°F or greater.	No	Portion of Redwood Creek within Project limit lacks shading to keep temperatures cool.
<i>Oncorhynchus mykiss</i> <i>irideus</i> pop. 8 steelhead – Central California Coast DPS	US: T CA: SSC	Coastal rivers and streams with cold water and deep (3 feet or greater) pools and runs; for spawning this species requires clean, silt-free gravel beds (0.5–5 inches deep), with clear flowing water and shaded stream reaches. Spawning adult steelhead occur during winter high water.	No	Redwood Creek does not connect with inland waters needed for this species or otherwise provide suitable habitat.
<i>Oncorhynchus tshawytscha</i> pop. 11 Chinook salmon – Central Valley Spring-Run ESU	US: T CA: T	Adult numbers depend on pool depth and volume, amount of cover, proximity to gravel, and temperatures (water temps >80°F are lethal to adults).	No	Portion of Redwood Creek within Project limit lacks shading to keep temperatures cool.
<i>Spirinchus thaleichthys</i> pop. 2 longfin smelt	US: E CA: T	Found in a variety of habitat in estuaries, including nearshore waters, estuaries, and freshwater streams; tolerates a wide range of salinity from freshwater to marine; anadromous; eggs deposited over sandy or gravel substrates, rocks, or aquatic plants; spawns November through May.	Yes	Redwood Creek at Veteran's Boulevard may provide limited habitat suitability.
Invertebrates				
<i>Bombus crotchii</i> Crotch's bumble bee	US: — CA: C	Nearly endemic to California; occurs in grassland and shrublands in southern and central California; flight period for queens is from late February to late October; flight period for workers and males is from Late March through September; nests underground; likely overwinters in soft soil or under leaf litter; generalist forager.	Yes	Nearly all of Project site is urban. Occurrence would likely be limited to the Redwood Creek area. No recorded occurrences within 5 miles.

Special-Status Species in the Vicinity of the Project

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
<i>Bombus occidentalis</i> western bumble bee	US: — CA: C	Found in meadows and grasslands in the northern California coast and Sierra Nevada from Amador County northward, primarily at higher elevations; nests underground in rodent burrows in open west-southwest facing slopes on woodland edges; rarely nests above ground; generalist foragers; overwintering habit unknown.	No	No suitable habitat present. Historic record in Redwood City from 1963 (EONDX 100352); likely extirpated due to development of area.
<i>Danaus plexippus</i> monarch butterfly	US: PT CA: —	Migrant; lays eggs on milkweed (primarily <i>Asclepias</i> spp.); overwinters along the coast in dense stands of eucalyptus, Monterey pine, and Monterey cypress that provide indirect sunlight, moisture for hydration, protection from winds, and above-freezing temperatures.	No	No suitable winter or summer habitat present. Nearly all of Project site is urban. No recorded occurrences within 5 miles.
<i>Euphydryas editha bayensis</i> Bay checkerspot butterfly	US: T CA: —	Found in serpentine or serpentine-like grasslands on topographically diverse landscapes with both warm and cool slopes; at San Bruno Mountain found on non-serpentine grasslands; primary larval host plant is dwarf plantain (<i>Plantago erecta</i>); secondary host plants include purple owl's-clover (<i>Castilleja densiflora</i>) or exserted paintbrush (<i>Castilleja exserta</i>); nectars on variety of plants primarily associated with serpentine grasslands; only known from Santa Clara and San Mateo Counties.	No	No suitable serpentine habitat present. Nearly all of Project site is urban. Nearest recorded occurrence approximately 3.5 miles to the southwest at Edgewood Park from 2017 in and presumed extant (EONDX 1263).
<i>Speyeria zerene myrtleae</i> Myrtle's silverspot butterfly	US: E CA: —	Larval hostplant is western dog violet (<i>Viola adunca</i>) in coastal dunes, coastal scrub or coastal prairie; elevation from sea level to 1,000 feet; found along coast as far as 3 miles inland; historically found from Sonoma County to San Mateo County but now likely extirpated south of Golden Gate Bridge.	No	No suitable habitat present. No records within 5 miles. Nearly all of Project site is urban.

Special-Status Species in the Vicinity of the Project

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
Amphibians				
<i>Ambystoma californiense</i> pop. 1 California tiger salamander—Central California DPS	US: T CA: T	Small salamander found in vernal and seasonal pools and associated grasslands, oak savanna and woodland, and coastal scrub in the Central Valley from Tulare County north to the Sacramento area and along the Central Coast from Santa Barbara County north to the San Francisco Bay; 0 to 3,200 feet elevation; spends most of the year in small mammal burrows; breeding season is November–February; requires seasonal ponds for breeding and egg laying; can travel more than 3,000 feet between aquatic and upland habitats.	No	No suitable habitat present. Nearly all of Project site is urban. Nearest recorded occurrence approximately 4.5 miles to the southwest from 1962 and possibly extirpated (EONDX 45865).
<i>Aneides niger</i> Santa Cruz black salamander	US: — CA: SSC	Found in perennial grass, wet meadow, montane riparian, valley foothill hardwood, hardwood conifer, and riparian habitats. Primarily found in cool, moist habitats with shaded conditions along water courses. Uses rocks, rotten logs, and surface debris for cover.	No	No suitable habitat present. Nearly all of Project site is urban. Nearest recorded occurrence is over 5 miles to the west from the 1970s in the McGarvey Gulch area and presumed extant (EONDX 103698).
<i>Dicamptodon ensatus</i> California giant salamander	US: — CA: SSC	In or near streams in humid coastal forests, especially in Douglas fir, redwood, red fir, and montane and valley foothill riparian habitats. Aquatic adults and larvae found in cool, rocky streams and sometimes lakes and ponds. Terrestrial adults found under surface litter and in tunnels underground.	No	No suitable habitat present. Nearly all of Project site is urban. Nearest recorded occurrence is approximately 5 miles to the south from 1935 in the Woodside area and presumed extant though this area has been developed (EONDX 100335).
<i>Rana boylei</i> pop. 4 foothill yellow-legged frog – Central Coast DPS	US: T CA: E	Partly shaded foothill and mountain streams with rocky or cobbly substrate with enough water to support metamorphosis over 15 weeks; variety of riparian habitats in the San Francisco Peninsula and Diablo Range south of San Francisco Bay Estuary and south through the Santa Cruz and Gabilan Mountains east of the Salinas River in the southern inner Coast Ranges.	No	No suitable habitat present. Nearly all of Project site is urban. Nearest recorded occurrence is approximately 5 miles to the west from 1938 and identified as extirpated (EONDX 111820).

Special-Status Species in the Vicinity of the Project

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
<i>Rana aurora draytonii</i> California red-legged frog	US: T CA: SSC	Freshwater marshes, streams, ponds, and other semi-permanent water sources. Suitable breeding ponds and pools usually have a minimum depth of 20 inches and must contain water during the entire development period for eggs and tadpoles (typically March through August).	No	No suitable habitat present. Nearly all of Project site is urban. Multiple recorded occurrences over 4 miles from the Project site; those presumed extant are primarily in undeveloped natural areas with riparian features.
Reptiles				
<i>Actinemys marmorata</i> northwestern pond turtle	US: PT CA: SSC	Highly aquatic and diurnally active; found in ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches with vegetation and rocky/muddy bottoms; wide variety of habitats; needs basking areas near water (logs, rocks, vegetation mats, banks); may enter brackish water and even seawater; digs nest on land near water; range is from north of the San Francisco Bay area south, including the Central Valley.	Yes	Nearly all of Project site is urban. Occurrence would likely be limited to adjacent upland areas along Redwood Creek, but connectivity to other streams is very limited. Nearest recorded occurrence approximately 5 miles to the east from 1902 and possibly extirpated (EONDX 22279).
<i>Thamnophis sirtalis tetrataenia</i> San Francisco gartersnake	US: E CA: E, FP	Variety of aquatic habitats including wetlands, marshes and swamps, and ponds in San Mateo County and extreme northern Santa Cruz County; prefers slow-moving or standing water at least one foot deep under dense cover and near grassland habitat; can be found in artificial aquatic features; hibernates in rodent burrows or under rocks.	Yes	Nearly all of Project site is urban. Occurrence would likely be limited to adjacent upland areas along Redwood Creek. Connectivity to other features is very limited. Multiple records within 5 miles but location information is suppressed.

Special-Status Species in the Vicinity of the Project

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
Birds				
<i>Athene cunicularia</i> burrowing owl	US: — CA: C, SSC	Occupies a variety of open, semi-arid to arid habitats throughout central and southern California, including desert regions; prefers open habitats with few shrubs or trees; most active around sunrise and sunset; utilizes burrows constructed by mammals year-round for shelter and nesting; well documented in urban areas where patches of undeveloped areas are present (e.g., canals, airports, drainage basins) and in areas of dense agricultural development, particularly where canals provide burrow habitat; forages primarily for rodents and insects within several miles of its burrow, usually in open, grassy habitats if available; has been observed hunting bats and insects around parking lot lights; threats include development resulting in habitat loss/fragmentation.	Yes	Nearly all of Project site is urban. Occurrence would likely be limited to adjacent upland areas along Redwood Creek. No records within 5 miles.
<i>Agelaius tricolor</i> tricolored blackbird	US: — CA: T, SSC	Colonial breeder that prefers freshwater, emergent wetlands with tall, dense cattails or tules, but also thickets of willow, blackberry, wild rose, and tall herbs; breeding colonies are minimum approximately 50 pairs; forages in pastures, grain fields, and similar habitats near breeding areas.	No	No suitable freshwater wetland habitat present. Nearly all of Project site is urban. No records within 5 miles.

Special-Status Species in the Vicinity of the Project

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
<i>Asio flammeus</i> short-eared owl	US: — CA: SSC	Winters in Central Valley, western Sierra Nevada foothills, along coastline, and southern California including Channel Islands; occasionally breeds in coastal areas from San Francis Bay northward, on Modoc plateau, in the eastern Sierra Nevada from Lake Tahoe south to Inyo county, and in the San Joaquin Valley; prefers open grasslands, meadows, and marshes with few trees; occurs in both fresh and salt water wetlands, lowland meadows, and irrigated alfalfa fields; requires dense ground vegetation for both roosting and nesting.	Yes	Nearly all of Project site is urban. Occurrence would likely be limited to adjacent upland areas along Redwood Creek. Nearest recorded occurrence approximately 3 miles to the northeast on Bair Island from 1977 and presumed extant (EONDX 25537).
<i>Brachyramphus marmoratus</i> marbled murrelet	US: T CA: E	Nests in old-growth lower montane conifer dominated by redwoods up to six miles from shore from Eureka to the Oregon border and from Half Moon Bay to Santa Cruz; nests mostly in Douglas fir or old-growth redwoods in forests stands vary from several acres to thousands of acres in size and consists of multiple canopy layers with moderate to high canopy closure; spends non-breeding season on the ocean near shore in waters less than 100 feet deep;	No	No suitable habitat present. Nearly all of Project site is urban. No records within 5 miles.
<i>Charadrius nivosus nivosus</i> western snowy plover	US: T CA: SSC	Federal status applies to the Pacific coastal population; occurs on sandy beaches, salt pond levees and shores of large alkali lakes; migrant; breeds Mach to August; requires barren areas with sandy, gravelly or friable soils for nesting; nests in scrapes often downwind of vegetation and driftwood.	No	No suitable unvegetated habitat present. Nearly all of Project site is urban. Nearest recorded occurrence approximately 3 miles to the northeast on Bair Island from 1978 and presumed extant (EONDX 25731).

Special-Status Species in the Vicinity of the Project

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
<i>Circus hydonius</i> northern harrier	US: — CA: SSC	Meadows, grasslands, open rangelands, desert sinks, fresh and saltwater emergent wetlands. Nests on ground, usually at marsh edge. Mostly nests in emergent wetland or along rivers or lakes, but may nest in grasslands, grain fields, or on sagebrush flats several miles from water. Breeds April to September.	No	No suitable habitat present. Nearly all of Project site is urban. Nearest recorded occurrence approximately 3 miles to the northeast on Bair Island from 1978 and presumed extant (EONDX 25731).
<i>Coturnicops noveboracensis</i> yellow rail	US: — CA: SSC	Rare; secretive; breeds in Mono County and other inland areas or California and Oregon; winters in wet meadows and coastal tidal marshes on northern coast and in Suisun Marsh region and near Eureka.	Yes	Nearly all of Project site is urban. Occurrence would be limited to areas along Redwood Creek where it empties into the Bay. Nearest recorded occurrence approximately 1 miles to the north in tidal marshes from 1912 and presumed extant (EONDX 106944).
<i>Elanus leucurus</i> white-tailed kite	US: — CA: FP	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching. Places nest near top of dense oak, willow, or other tree near open foraging area. Substantial groves of dense, broad-leafed deciduous trees used for nesting and roosting. Forages in undisturbed, open grasslands, meadows, farmlands, and emergent wetlands.	Yes	Nearly all of Project site is urban. Occurrence would likely be limited to adjacent upland areas along Redwood Creek. Nearest recorded occurrence approximately 3 miles to the northeast on Bair Island from 1971 and presumed extant (EONDX 25537).
<i>Geothlypis trichas sinuosa</i> common yellowthroat	US: — CA: SSC	Endemic to San Francisco Bay area; uses fresh and brackish water marshes with dense emergent and riparian cover, especially rushes (<i>Scirpus</i> spp.), Peppergrass (<i>Leipidium latifolium</i>), and <i>Juncus</i> sp.; amount of marsh habitat in the surrounding 1.2 miles is a good predictor of presence; breeds mid-March to late July; builds open-cup nests near ground in grasses and herbs; often double broods.	Yes	Nearly all of Project site is urban. Occurrence would likely be limited to adjacent upland areas along Redwood Creek. No records within 5 miles.

Special-Status Species in the Vicinity of the Project

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
<i>Haliaeetus leucocephalus</i> bald eagle	US: D CA: E, FP	Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old-growth, or dominant live trees with open branches, especially ponderosa pine. Roosts communally in winter. Piscivorous and scavenger. Requires large bodies of water.	Yes	Nearly all of Project site is urban. Occurrence would likely be limited to adjacent upland areas along Redwood Creek. No records within 5 miles.
<i>Laterallus jamaicensis coturniculus</i> California black rail	US: — CA: T, FP	Typically inhabit and nest in saline, brackish, and fresh emergent wetlands; major distribution in California is within the San Francisco Bay Area, ranging north to Santa Rosa and south to San Jose; scattered occurrences elsewhere; requires dense emergent vegetation for cover and nesting;	Yes	Nearly all of Project site is urban. Occurrence would likely be limited to adjacent upland areas along Redwood Creek. Nearest recorded occurrence less than 1 mile to the north in the tidal marshes from 2011 and presumed extant (EONDX 15422).
<i>Melospiza melodia pusillula</i> Alameda song sparrow	US: — CA: SSC	Endemic to tidal salt marshes along the fringe of the south San Francisco Bay east of El Cerrito, south to Alviso, and west to San Francisco; non-migratory; breeds late February to mid-August; dominant plants in occupied areas are cord grass (<i>Spartina</i> spp.), pickleweed (<i>Salicornia</i> spp.), and gumplant (<i>Grindelia</i> spp.); vegetation height must protect nests from tidal flooding.	Yes	Nearly all of Project site is urban. Occurrence would likely be limited to adjacent upland areas along Redwood Creek. Nearest recorded occurrence approximately 3 miles to the northeast at Bair Island from 2004 and presumed extant (EONDX 60674).
<i>Rallus obsoletus obsoletus</i> California Ridgway's rail	US: E CA: E, FP	Occurs in salt water and brackish marshes traversed by tidal slough in San Francisco Bay area in areas with unrestricted tidal flows; in South Bay, associated with abundant growth of pickleweed (<i>Salicornia</i> sp.); in North Bay, vegetation structure of occupied habitat varies significantly with a variety of emergent plant species; breeds from late February through July; nests built on ground or in vegetation on berms with tall vegetation along tidal channels where the nests are protected from flooding; non-migratory.	Yes	Nearly all of Project site is urban. Occurrence would likely be limited to adjacent upland areas along Redwood Creek. Nearest recorded occurrence approximately 3 miles to the northeast at Bair Island from 2006 and presumed extant (EONDX 30344).

Special-Status Species in the Vicinity of the Project

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
<i>Riparia riparia</i> bank swallow	US: — CA: T	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	No	No suitable habitat present. Nearly all of Project site is urban. No records within 5 miles.
<i>Rynchops niger</i> black skimmer	US: — CA: SSC	Colonial nester; nests built in shallow scrape on gravel bars, low islets, sandy beaches and unvegetated sites; often nests with terns; breeds early May to late September at Salton Sea, various southern California coastal areas, and south San Francisco Bay; year-round resident in Los Angeles, Orange and San Diego counties; winters on southern California coast south to Baja California and the Gulf of California; forages over calm waters.	No	No suitable habitat present. Nearly all of Project site is urban. No records within 5 miles.
<i>Sternula antillarum browni</i> California least tern	US: E CA: E, FP	Nests along the coast from San Francisco Bay south to northern Baja California. Forages in shallow water. Colonial breeder on bare or sparsely vegetated, flat substrates, sand beaches, alkali flats, landfills, or paved areas.	Yes	Nearly all of Project site is urban. Occurrence would likely be limited to adjacent upland areas along Redwood Creek. Nearest recorded occurrence approximately 3 miles to the northeast at Bair Island Ecological Reserve from 1988 and presumed extant (EONDX 25708).
Mammals				
<i>Antrozous pallidus</i> pallid bat	US: — CA: SSC	Occurs in low elevations in deserts, grasslands, shrublands, woodlands, and forests throughout California from sea level up through mixed conifer forests; most common in open, dry, habitats with rocky areas for roosting; roosts usually in groups of 20 or more; day roosts in caves, crevices, mines, and occasionally hollow trees and buildings; night roosts sometimes in more open areas; roost must protect against high temps; maternity colonies form in April; hibernates in winter; needs water; very sensitive to roost disturbance.	Yes	Nearly all of Project site is urban. Low potential for nesting in trees and buildings throughout area. Nearest recorded occurrence approximately 4 miles to the southwest from 1960 and presumed extant (EONDX 66770).

Special-Status Species in the Vicinity of the Project

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	US: — CA: SSC	Found throughout California in a wide variety of habitats. Most common in mesic sites. Requires human-made structures for roosting. Roosts in the open, hanging from walls and ceilings. Roosting sites limited. Extremely sensitive to human disturbance.	Yes	Nearly all of Project site is urban. Low potential for nesting in abandoned buildings throughout area. No records within 5 miles.
<i>Neotoma fuscipes annectans</i> San Francisco dusky-footed woodrat	US: — CA: SSC	Chaparral, redwood forest, and woodland habitats with moderate canopy and moderate to dense understory; nests in houses constructed of shredded grass, leaves, sticks and other material at base of or in a tree or shrub; availability of house material may be limiting; breeds from December to September; herbivore.	Yes	Nearly all of Project site is urban. Documented in roadside vegetation, including ornamentals. Nearest recorded occurrence approximately 4 miles to the south from 2016 and presumed extant (EONDX 103447).
<i>Reithrodontomys raviventris</i> salt-marsh harvest mouse	US: E CA: E, FP	Saline and brackish marshes and swamps in the San Francisco Bay and Suisun Bay; distribution strongly correlated with abundance of pickleweed (<i>Salicornia</i> sp.) of about 6 inches or taller; habitat may be covered intermittently with shallow water or have high soil saturation; may use adjacent grassland with sufficient cover in spring and summer; breeds March to November; nests of loose grasses built on ground.	Yes	Nearly all of Project site is urban. Occurrence would be limited to the Redwood Creek area where it empties into the Bay. Nearest recorded occurrence less than 1 mile to the north from 1992 and presumed extant (EONDX 7871).
<i>Sorex vagrans halicoetes</i> salt-marsh vagrant shrew	US: — CA: SSC	Occurs in marshes, swamps, and wetlands in south arm of the San Francisco Bay; prefers medium to high density marshes up to about 8 feet above sea level with driftwood and pickleweed; breeds March to September; nests under logs, roots, or dense vegetation.	Yes	Nearly all of Project site is urban. Occurrence would be limited to the Redwood Creek area where it empties into the Bay. Nearest recorded occurrence approximately 3 miles to the north from 1985 and presumed extant (EONDX 24364).

Special-Status Species in the Vicinity of the Project

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
<i>Taxidea taxus</i> American badger	US: — CA: SSC	Found throughout California except in the North Coast area; open grasslands, deserts, and edge of scrub and woodland habitats; requires loose soils; does not occur in irrigated agriculture; active year-round, both nocturnal and diurnal; young are born in March and April; primarily eats small mammals and occasionally reptiles, insects, birds, eggs, and carrion; capable of digging a new den each night.	No	No suitable habitat present. Nearly all of Project site is urban. Nearest recorded occurrence approximately 4 miles to the southeast from 1981 and presumed extant (EONDX 56798).

Sources: CDFW 2025a; CDFW 2025b; CNPS 2025; USFWS 2025b; Zeiner et al. 1990.

Notes:

Status

E	Listed as endangered
T	Listed as threatened
PT	Proposed Threatened
C	Candidate for federal Listing
FP	California Fully Protected
SSC	California Species of Special Concern

CRPR: California Rare Plant Rank

- 1A Presumed Extinct in California
- 1B Rare, Threatened, or Endangered in California and elsewhere
- 2A Plants presumed extirpated in California, but more common elsewhere
- 2B Plants Rare, Threatened, or Endangered in California, but more common elsewhere

CRPR Threat Code Extension

- .1 Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)
- .2 Fairly endangered in California (20–80% occurrences threatened)
- .3 Not very endangered in California (<20% of occurrences threatened)

BSA = Biological Study Area

US = United States

CA = California

CDFW = California Department of Fish and Wildlife

CNDDDB = California Natural Diversity Database

CNPS = California Native Plant Society

DPS = Distinct Population Segment

ESU = Evolutionarily Significant Unit

EONDX = Element Occurrence Index

USFWS = United States Fish and Wildlife Service