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September 6, 2019

Julian Bobilev
Urban Planning Partners, Inc.
388 17th Street, Suite 230
Oakland, CA 94612

Subject: Revised Biological Resource Assessment
1744 Ruby Street, Castro Valley, Alameda County, California

Dear Mr. Bobilev:

LSA submits this revised biological resources assessment for the proposed housing development located at 1744 Ruby Street in Castro Valley, Alameda County, California (Figures 1 and 2). The primary objective of the assessment is to identify potentially significant biological resource constraints to development of the project site, especially those related to special-status species and sensitive habitats. This assessment is based on the review of database searches, LSA's reconnaissance-level field survey, and LSA's project experience with biological resource issues in the Castro Valley and Alameda County.

This analysis consists of the following elements: (1) a general description of the habitat types present on the project site; (2) identification of special-status species observed or potentially present on the project site; (3) a general assessment of sensitive habitats (including potential waters of the United States/waters of the State); (4) identification of potential project impacts that may be avoided or reduced under each of the California Environmental Quality Act (CEQA) Guidelines Checklist Questions; and (5) proposed mitigation/avoidance measures to reduce remaining impacts to a level of less than significant under CEQA.

METHODS

LSA Senior Biologist Dan Sidle conducted a reconnaissance-level survey of the project site on September 21, 2018, to evaluate the potential occurrence of special-status species and sensitive habitats on the site. Prior to conducting the survey, The LSA biologist reviewed available background information/literature, including the Castro Valley General Plan Draft Environmental Impact Report prepared by Kahn/Mortimer/Associates and Dyett & Bhatia (KMA and DB 2007) and the Natural Environment Study (NES) prepared for the Hayward Riparian Mitigation State Route 84 Pigeon Pass Realignment Project (Caltrans 2014), and searched the records of the *California Natural Diversity Database* (CNDDB; CDFW 2018), the *Inventory of Rare and Endangered Plants* (CNPS 2018), and the U.S. Fish and Wildlife Service's *Information for Planning and Consultation (IPaC)* on-line database (USFWS 2018) for occurrences of special-status plant and wildlife species on or adjacent to the project site. LSA surveyed the project site by walking throughout the site to search for biological resources such as the presence of special-status plants, animals, and their habitats, and sensitive habitats such as wetlands or drainages. The potential presence of special-status species was determined based on an evaluation of the habitat types present on the site and the CNDDB records and other occurrence information from the vicinity of the site. During the field survey, Mr. Sidle also

investigated the site for the presence of waters of the United States/waters of the State (including adjacent wetlands) that would be subject to regulation under Section 404 of the Clean Water Act and/or the California Porter-Cologne Water Quality Control Act. On July 30, 2019, LSA Senior Botanist/Arborist mapped the edge of the riparian canopy using a GPS device with sub-meter accuracy.

The scientific and vernacular nomenclature for the plant and wildlife species used in this analysis are from the following standard sources: plants, Baldwin et al. (2012) and updates listed on the Jepson Herbarium website (http://ucjeps.berkeley.edu/eflora/); amphibians and reptiles, Crother (2017) and/or AmphibiaWeb (www.amphibiaweb.org); birds, American Ornithologists' Union (1998) and supplements through 2018; and mammals, Bradley et al. (2014).

HABITAT/LAND COVER TYPES

The project site currently supports the existing buildings, parking lots, landscaping, a grassland/meadow, and San Lorenzo Creek and its associated riparian woodland habitat. San Lorenzo Creek and its associated riparian woodland occur along the western and southern boundaries of the project site (Figure 3). The project site is bounded to the west by San Lorenzo Creek and the Douglas Morrison Theater, to the south by San Lorenzo Creek, Hayward Area Senior Center Japanese Gardens, De Anza Park, to the east by San Lorenzo Creek and residential development, and to the north by residential development. Soils on the project site are mapped as *Botella loam, 0 to 2 percent slopes*, *MLRA 14*, which is a well-drained soil type (UC Davis SoilWeb 2018).

Non-Native Annual Grasslands/Ruderal Vegetation

The majority of the project site supports a non-native annual grassland with ruderal (weedy) forb species. Plant species observed consist of almost all non-native plant species, including wild oats (*Avena* sp.), Bermuda grass (*Cynodon dactylon*), Smilo grass (*Stipa miliacea*), mustard (*Brassica* sp.), Italian thistle (*Carduus pycnocephalus*), bristly ox-tongue (*Helminthotheca echioides*), prickly lettuce (*Lactuca serriola*), stinkwort (*Dittrichia graveolens*), field bindweed *(Convolvulus arvensis*), nasturtium (*Nasturtium officinale*), Bermuda grass (*Cynodon dactylon*), poison hemlock (*Conium maculatum*), and bull thistle (*Cirsium vulgare*). Native species observed in the grassland consist of Canada horseweed (*Erigeron canadensis*).

Trees and Shrubs

Trees and shrubs observed on the site include both native and non-native species. Native species consist of coast live oak (*Quercus agrifolia*), California bay (*Umbellularia californica*), California buckeye (*Aesculus californica*), box elder (*Acer negundo*), arroyo willow (*Salix lasiolepis*), Fremont's cottonwood (*Populus fremontii*), and coyote brush (*Baccharis pilularis*). Coast redwood (*Sequoia sempervirens*) and Northern California black walnut (*Juglans hindsii*) are native to the region but appears to have been planted on the site. Non-native trees observed include walnut (*Juglans* sp.), fan palm (*Washingtonia* sp.), palm (*Phoenix* sp.), deodar cedar (*Cedrus deodara*), privet (*Ligustrum* sp.), eucalyptus (*Eucalyptus* sp.), Brazilian pepper (*Schinus terebinthifolius*), plum (*Prunus* sp.), blackwood acacia (*Acacia melanoxylon*), pear (*Pyrus* sp.), lemon (*Citrus limon*), cottonwood (*Populus*

sp.), mulberry (*Morus alba*), honeylocust (*Gleditsia triacanthos*), chinquapin (*Chrysolepis* sp.), English ivy (*Hedera helix*), tree tobacco (*Nicotiana glauca*), and other ornamental trees and plants.

San Lorenzo Creek and Riparian Woodland

San Lorenzo Creek with associated riparian vegetation occurs along the southern boundary of the project site (Figure 3). The creek supports blue wild rye (*Elymus glaucus*), California mugwort (*Artemisia douglasiana*), cocklebur (*Xanthium strumarium*), tall flatsedge (*Cyperus eragrostis*), deergrass (*Muhlenbergia rigens*), stinging nettle (*Urtica dioica*), pampas grass (*Cortaderia* sp.), Bigelow's sneezeweed (*Helenium bigelovii*), arroyo willow, cottonwood, eucalyptus, fan palm, box elder, California bay, and black walnut.

Portions of the riparian corridor above the top of bank of the creek have been restored with native riparian plantings and are being maintained by Caltrans. Browse-control cages, drip irrigation, water tank, and erosion fabric were observed above the bank along the creek. Plantings observed in browse-control cages included California sagebrush (*Artemisia californica*), coffeeberry (*Frangula californica*), California rose (*Rosa californica*), coyote brush (*Baccharis pilularis* ssp. *consanguinea* and ssp. *pilularis*), and mugwort. Caltrans completed the planting of native riparian vegetation and other restoration efforts, such as invasive plant removal, bank restoration, and debris/trash removal along San Lorenzo Creek riparian corridor, which has been placed in a conservation easement. This mitigation project is currently in year three of five with remaining tasks consisting of maintenance monitoring for the next two years and agency sign-off and completion of mitigation requirements in 2021 (Carson, pers. comm.). Subsequently, responsibility for maintaining the riparian plantings in the conservation easement would be transferred to a new entity that has not been selected yet.

WILDLIFE

Wildlife species or wildlife sign observed within or adjacent to the project site during the field survey consisted of western mosquitofish (*Gambusia affinis*), mallard (*Anas platyrhynchos*), Cooper's hawk (*Accipiter cooperii*), turkey vulture (*Cathartes aura*), wild turkey (*Meleagris gallopavo*), American crow (*Corvus brachyrhynchos*), California scrub-jay (*Aphelocoma californica*), belted kingfisher (*Megaceryle alcyon*), mourning dove (*Zenaida macroura*), great blue heron (*Ardea herodias*), Nuttall's woodpecker (*Dryobates nuttallii*), white-breasted nuthatch (*Sitta carolinensis*), chestnut-backed chickadee (*Poecile rufescens*), bushtit (*Psaltriparus minimus*), oak titmouse (*Baeolophus inornatus*), Bewick's wren (*Thryomanes bewickii*), black phoebe (*Sayornis nigricans*), Anna's hummingbird (*Calypte anna*), California towhee (*Melozone crissalis*), black-tailed deer (*Odocoileus hemionus*), raccoon (*Procyon lotor*; scat), fox squirrel (*Sciurus niger*), and domestic/feral cat (*Felis catus*).

The project site and surrounding trees and shrubs provide suitable nesting habitat for several bird species. Birds, such as mourning dove, California towhee, and California scrub-jay, could nest in the trees, shrubs, and/or grasslands on the site.

SPECIAL-STATUS SPECIES

For the purposes of this assessment, special-status species are defined as follows:

1. Species that are listed, formally proposed, or designated as candidates for listing as threatened or endangered under the federal Endangered Species Act (ESA);

2. Species that are listed, or designated as candidates for listing, as rare, threatened, or endangered under the California Endangered Species Act (CESA);

3. Plant species that are on the California Rare Plant Rank Lists 1A, 1B, and 2;

4. Animal species that are designated as Species of Special Concern or Fully Protected by CDFW; or

5. Species that meet the definition of rare, threatened, or endangered under Section 15380 of the CEQA guidelines.

6. Bat species that are listed in the Western Bat Working Group as High, Medium, Low-Medium Priority.

Special-Status Plant Species

Several CNDDB occurrences of special-status plant species have been recorded within 2 miles of the project site (CDFW 2018), but these species are not likely to occur within the development footprint due to disturbance caused from prior development and maintenance activities (i.e., mowing) on the site and the resulting introduction of non-native, invasive plant species. The proposed project will not impact San Lorenzo Creek channel bed, which is where native herbaceous plant species were observed and therefore has the higher potential for special-status plants to occur. The riparian corridor has been restored with common, native riparian trees, shrubs, forbs, and grasses as part of the Hayward Riparian Mitigation State Route 84 Pigeon Pass Realignment Project, but due to prior disturbance, special-status plants are unlikely to occur. Additionally, the NES prepared for the Hayward Riparian Mitigation State Route 84 Pigeon Pass Realignment Project, which evaluated the potential for special-status plants to occur within the project site's riparian corridor, states that no special-status plants are expected to occur within the riparian corridor due to the lack of suitable habitat. As noted above, LSA conducted a reconnaissance-level survey in September 2018 that included the meadow, riparian corridor, and San Lorenzo Creek (Figure 3) and observed no special-status plants during the survey. Based on the conditions observed during the reconnaissance survey, no protocol-level plant surveys are recommended within the development footprint.

Special-Status Animal Species

Special-status animal species that are known to occur in the vicinity of the site and for which suitable habitat may be present include the Central California Coast Distinct Population Segment of steelhead (*Oncorhynchus mykiss irideus*), western pond turtle (*Emys marmorata*), white-tailed kite (*Elanus leucurus*), tricolored blackbird (*Agelaius tricolor*), loggerhead shrike (*Lanius ludovicianus*), Townsend's western big-eared bat (*Corynorhinus townsendii townsendii*), western mastiff bat (*Eumops perotis californicus*), and pallid bat (*Antrozous pallidus*). A discussion of these and other special-status animal species that have potential to occur on or in the vicinity of the site are included below:

- San Lorenzo Creek may provide suitable habitat for the California red-legged frog (*Rana draytonii*), but this species likely does not occur in the segment of the creek adjacent to the project site due to the isolation of this reach of the creek by urban development. The likely presence of introduced predators (i.e., western mosquitofish [*Gambusia affinis*] and American bullfrog [*Rana catesbeianus*]), and the absence of recorded observations in the site's proximity further make the site unsuitable for this species. The NES prepared for the Hayward Riparian Mitigation State Route 84 Pigeon Pass Realignment Project (Caltrans 2014) also states this frog is unlikely to occur along this segment of San Lorenzo Creek and its associated riparian habitat. The closest CNDDB records are approximately 1.1 miles from the site in Hollis Canyon, 1.4 miles from the site in Garin Regional Park, and 1.5 miles from the site in Hayward.

- The western pond turtle could occur along San Lorenzo Creek. Suitable basking sites and plunge pools were observed in the creek channel adjacent to the project and pond turtles could nest along the banks of the creek. Potential basking sites would be limited to the sunny areas of the creek with less canopy cover.

    - The Central California Coast Distinct Population Segment of steelhead is known to occur in San Lorenzo Creek (Leidy 2005). The segment of San Lorenzo Creek at the site is passage habitat and may support potential rearing habitat for juvenile steelhead and potential low-to-moderate quality spawning habitat and the woody debris and concrete rip-rap within the channel could provide cover for steelhead (Caltrans 2014). High water temperatures in the creek during the summer, however, could limit suitability of rearing habitat for juvenile steelhead (ACFCWCD & Hagar 2002 as cited in Caltrans 2014). The potential for migratory or juvenile steelhead to be present within San Lorenzo Creek is very low due to the presence of a likely barrier to migration from the downstream concrete flood control channel and the lack of recent confirmed observations of steelhead (Caltrans 2014). Due to the requirements of the CDFW permit, installation of the proposed outfall would occur during the dry months (generally April 15 to October 15) when water levels are low and when steelhead are less likely to be present. It is likely CDFW would also require the water level to drop below the proposed area of disturbance before installation could commence.

- American peregrine falcon (*Falco peregrinus anatum*), northern harrier (*Circus hudsonius*), golden eagle (*Aquila chrysaetos*), and tricolored blackbird could forage on the site but are unlikely to nest on the site due to the lack of suitable nesting habitat on or adjacent to the site. The fields are regularly mowed and do not provide suitable vegetation and cover for northern harrier or tricolored blackbird nests. The trees on the site are situated within a residential neighborhood and are unlikely to support nesting golden eagles.

- No rodent burrows or other burrow sites suitable for burrowing owl (*Athene cunicularia*) were observed during the reconnaissance-level survey.

- White-tailed kite could nest in the trees or large shrubs on or adjacent to the site and could forage near the site. No white-tailed kites or stick nests were observed during the field survey, but this species could nest on or adjacent to the site in the future.

- Loggerhead shrike could nest in the trees and large shrubs on or adjacent to the site and forage near the site. No shrikes or shrike nests were observed during the field survey, but the site does provide suitable nesting habitat and therefore this species could nest on or adjacent to the site in the future.

- Townsend's western big-eared bat, western mastiff bat, and pallid bat may forage over the site but are unlikely to roost on the site due to the lack of suitable roosting habitat. No evidence of roosting bats was observed during the survey, but tree snags with large cavities suitable for bat roosts were observed along the San Lorenzo Creek riparian corridor. The NES prepared for the Hayward Riparian Mitigation State Route 84 Pigeon Pass Realignment Project (Caltrans 2014), confirms that potential impacts to bat roosts are unlikely.

SENSITIVE HABITATS

Waters of the United States/State

A potentially jurisdictional segment of San Lorenzo Creek occurs along the southern boundary of the project site. Ultimately the U.S. Army Corps of Engineers (Corps) determines whether or not the creek is jurisdictional. The project will not impact the creek. No other wetlands or waters of the United States/State that are potentially jurisdictional under Section 404 of the Clean Water Act or the Porter-Cologne Act were observed on the site during the field survey.

Riparian or Other Sensitive Habitat

CDFW tracks the occurrences of plant communities that are either known or believed to be of high priority for inventory in the CNDDB. In the most recent list of vegetation alliances/natural communities recognized in California, alliances with a NatureServe State ranking code of S1 through S3 are considered to be "highly imperiled" and impacts to "high-quality occurrences" of these communities may be considered significant under CEQA.

The vegetation along San Lorenzo Creek would be considered riparian (Figure 3) and would be subject to regulation by CDFW and possibly RWQCB. No other sensitive natural communities were identified during LSA's reconnaissance survey. The scattered oak trees are intermixed among other planted trees, such as coast redwood, walnut, acacia, eucalyptus, and fruit trees, and do not constitute a native oak woodland. Furthermore, coast live oak woodland has a rating of S4 and is not a sensitive natural community.

WILDLIFE NURSERY SITES

The project site does not support suitable habitat for wildlife nursery sites, including bird rookeries or roosting bat colonies. No evidence of roosting bats (i.e., guano, urine stains, droppings, odor) or bird rookeries were detected during LSA's field survey.

WILDLIFE MOVEMENT CORRIDORS

The project site includes buildings, trees, shrubs, grasslands, and the San Lorenzo Creek riparian corridor. Although the San Lorenzo Creek channel and associated riparian habitat (Figure 3) provides a movement corridor for many wildlife species, the San Lorenzo Creek riparian corridor would not

be impacted since the installation of a new storm water outfall is the only proposed impact to the riparian corridor. Existing wildlife that currently move through the riparian corridor would be able to continue to utilize the movement corridor after project development. Wildlife that currently move through the remainder of the project site are urban-adapted species that would likely continue to move through the site after project development. Typical urban wildlife that may move through the site include various native and non-native birds, black-tailed deer, raccoon (*Procyon lotor*), Virginia opossum (*Didelphis virginiana*), and striped skunk (*Mephitis mephitis*). The proposed trail would not impact wildlife movement within the riparian corridor, since wildlife would be able to cross the trail. Although the grassland/meadow adjacent to the riparian corridor provides foraging habitat for some of the wildlife that occur within the riparian corridor, such as native black-tailed deer and non-native wild turkeys, the grassland does not provide a significant wildlife movement corridor since it is situated between existing development to the north and east.

LOCAL AND STATE REGULATIONS

Alameda County Tree Protection Ordinance

Alameda County will require a permit for the removal of trees along the public right-of-way that are protected under the County's Tree Preservation Ordinance (Castro Valley is situated within unincorporated Alameda County and does not have its own tree protection ordinance). Qualified trees would include any woody perennial plant characterized by having a single trunk or multi-trunk structure at least 10-feet high and having a major trunk that is at least 2 inches in diameter taken at breast height (4.5 feet from the ground). Other protected trees include those plants generally designated as trees and any trees that have been planted as replacement trees under the County Tree Ordinance or any trees planted by the County. If trees within the County's public right-of-way are impacted, these protected trees would likely require a permit from the County and may need to be mitigated with replacement trees at a minimum 1:1 ratio. The project would remove one tree within the County public right-of-way. Oaks and other trees situated within project site that would be removed as part of the proposed project are outside of the public right-of-way and are, therefore, not protected by the County's Tree Preservation Ordinance. The trees that would be removed within the project site are not considered protected trees under this ordinance. The County does not have a heritage tree ordinance.

HABITAT CONSERVATION PLANS

The project site is not located within the limits of a conservation plan and therefore would not conflict with any adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan.

RECOMMENDED AVOIDANCE MEASURES

The proposed project will implement policies and actions within the Castro Valley General Plan EIR that will protect sensitive biological resources, including nesting birds, roosting bats, special-status animal species, such as California red-legged frog and western pond turtle.

LSA recommends the following specific avoidance measures be implemented to ensure impacts to biological resources are avoided/minimized:

Nesting Birds

The project shall avoid construction activities during the bird nesting season (February 1 through August 31). If construction activities are scheduled during the nesting season, a qualified biologist shall conduct a pre-construction survey of all suitable nesting habitat (i.e., fields, trees, shrubs, buildings) within 250 feet of the project site (where accessible). The pre-construction survey shall be conducted no more than 14 days prior to the start of work. If the survey indicates the presence of nesting birds, protective buffer zones shall be established around the nests as follows: for raptor nests, the size of the buffer zone shall be a 250-foot radius centered on the nest; for other birds, the size of the buffer zone shall be a 50- to 100-foot radius centered on the nest. In some cases, these buffers may be increased or decreased depending on the bird species and the level of disturbance that will occur near the nest.

Roosting Bats

The proposed project will implement policies and actions within the Castro Valley General Plan EIR that will protect roosting bats, if present.

A qualified biologist shall conduct a pre-construction survey for roosting bats at all suitable bat roosting habitat (trees, the barn/outbuilding and other structures, etc.) within the project area within 14 days prior to the beginning of project-related activities. If active bat roosts are discovered or if evidence of recent prior occupation is established, a buffer shall be established around the roost site until the roost site is no longer active. If an active bat roost needs to be removed as part of the proposed project, the project biologist would need to consult CDFW to determine appropriate methods for the removal of the roost. As part of CDFW's approval, a new roost site may need to be created on the project site as mitigation.

California Red-legged Frog and Western Pond Turtle

The proposed project will implement policies and actions within the Castro Valley General Plan EIR that will protect California red-legged frogs and western pond turtles, if present. The following additional avoidance measures are recommended for California red-legged frog and western pond turtle:

- Prior to the commencement of construction activities, a qualified biologist shall conduct a training session for all project personnel to provide an overview on the California red-legged frog and western pond turtle, applicable regulatory policies and provisions regarding their protection, and the avoidance and minimization measures to be followed to protect the species.

- The contractor, in coordination with the biologist, shall install exclusionary fencing along the outer perimeter of the riparian corridor. The fencing shall be heavy-duty silt-fence or similar material and be buried a minimum of 6 inches so that frogs and turtles cannot crawl under the fence and shall be inspected and maintained throughout the construction period, as specified below.

- A qualified wildlife biologist shall monitor all construction activities within suitable habitat daily during initial ground-disturbing activities, including grading, excavation, and vegetation removal.

- If a California red-legged frog or western pond turtle is observed during project activities, all work that may result in disturbance, injury, or mortality to the individual frog or turtle shall cease. The contractor shall notify the biologist, who shall in turn contact the project team, CDFW, and/or USFWS.

Special-Status Plants

No special-status plants are likely to be present on the project site due to the lack of suitable natural habitat and prior disturbance at the site. The project site appears to have been graded in the past, is regularly mowed, and has been colonized by introduced non-native plant species. The proposed project will not impact the San Lorenzo Creek channel, which is where most of the naturally growing native understory plant species were observed and therefore has the higher potential for special-status plants to occur. Additionally, the NES prepared for the Hayward Riparian Mitigation State Route 84 Pigeon Pass Realignment Project, which evaluated the potential for special-status plants to occur within the project site's riparian corridor, states that no special-status plants are expected to occur within the riparian corridor due to the lack of suitable habitat (Caltrans 2014). No protocol-level plant surveys are recommended.

Waters of the US/Waters of the State

San Lorenzo Creek, a potentially jurisdictional feature, occurs along the southern boundary of the project site. The proposed project would involve the installation of a new naturalized storm sewer outfall and associated riprap constructed in the bank of San Lorenzo Creek, which would impact the creek bank. Impacts to riparian vegetation will be minimal and native riparian trees and shrubs would be avoided, if possible. The riprap would be placed around the outfall to prevent erosion to the creek. Impacts to the banks and channel of San Lorenzo Creek would likely require a Streambed Alteration Agreement permit from CDFW, a 401 Clean Water Act Water Quality Certification from the RWQCB, and a 404 nationwide permit from the Corps. In addition to obtaining the regulatory agency permits for the proposed new outfall, in accordance with Alameda County's Watercourse Protection Ordinance, the applicant shall coordinate with the Alameda County Public Works Agency to determine whether a flood encroachment permit needs to be obtained with their building permit in order to authorize the installation of a new drainage pipe/outfall and associated discharge into San Lorenzo Creek. No other potentially jurisdictional features, such as seasonal wetlands, were observed during LSA's survey.

The agencies with jurisdiction will require mitigation to any impacts entailing alteration of the bank of San Lorenzo Creek by enhancing the San Lorenzo Creek bank or riparian corridor at a minimum 3:1 replacement ratio for any removed riparian trees or shrubs. Enhancements will likely include planting native riparian plants and/or removing non-native plants along the San Lorenzo Creek riparian corridor. The mitigation plants shall be from a local plant stock within the East Bay.

Riparian Woodland

The riparian woodland corridor associated with San Lorenzo Creek is considered sensitive habitat by CDFW and under CEQA. The riparian corridor is mostly contiguous with the County's required creek setback[1], which prohibits development within its limits. In some areas, the riparian canopy extends beyond the creek setback. While some portions of the trail and several parking spaces are proposed under the riparian canopy, the County shall require the project sponsor to minimize grading to the greatest extent possible through measures such as installation of retaining walls. In addition, the County would include a Condition of Approval for an arborist to monitor the riparian trees that are outside the creek setback during construction to ensure no damage occurs to root zones.

The proposed project would involve the installation of a new storm sewer outfall constructed in the bank of San Lorenzo Creek, which would impact riparian vegetation along San Lorenzo Creek. The pipe would be drilled/placed laterally to minimize removal of riparian vegetation and riprap would be placed around the pipe to prevent erosion. Impacts to riparian vegetation would be minimal and native riparian trees and shrubs would be avoided, if possible. As stated above, impacts to the banks and channel of San Lorenzo Creek would likely require a Streambed Alteration Agreement permit from CDFW, a 401 Clean Water Act Water Quality Certification from the RWQCB, and a 404 nationwide permit from the Corps. With the replacement of riparian plants at a minimum 3:1 ratio, the loss of existing riparian plants that may provide shade to San Lorenzo Creek would be less than significant. No other riparian trees would be removed as part of the project and the established riparian corridor setback will protect riparian trees that are currently providing shade for the creek.

As noted above, the agencies with jurisdiction will require mitigation to impacted native riparian trees and shrubs at a minimum 3:1 ratio in-kind replacement ratio at an appropriate onsite location along the San Lorenzo Creek riparian corridor. Non-native trees and shrubs that are impacted within the riparian corridor shall be replaced at a 3:1 ratio with a suitable native tree or shrub. The mitigation plants shall be from a local plant stock within the East Bay.

LSA recommends that silt/exclusion fencing be installed along the edge of the riparian woodland canopy to both avoid potential impacts to the riparian corridor, creek channel, steelhead, and other aquatic species, and to deter special-status species, such as western pond turtle and California red-legged frog, if present, from accessing the construction area.

Grassland/Meadow

The grassland/meadow occupies the majority of the project site and does not support any sensitive habitat under CEQA, such as wetlands, riparian vegetation, or sensitive plant communities. Although the remnant native coast live oak trees around the grassland may have been associated with a larger oak woodland or oak savanna habitat, these oaks along with planted ornamental trees at the site would not be considered a sensitive natural community. The grassland is highly disturbed by prior

[1] Alameda County General Ordinance Code 13.12.320 provides that the creek setback is calculated by creating an imaginary 2:1 (horizontal to vertical) slope line from the creek toe, following it until intersects the natural grade beyond the top of the bank, and adding 20 feet. Using this method, steeper creek banks result in more substantial setbacks.

use and has been colonized by non-native understory plants and does not provide suitable habitat for special-status plants. During the field surveys, native black-tailed deer and non-native wild turkeys were observed foraging in the grasslands.

County Tree Removal Permit

Trees within the County public right-of-way are protected trees under the County's Tree Preservation Ordinance. A permit from Alameda County may be required for the removal of protected trees.

Please contact me at (510) 236-6810 or at dan.sidle@lsa.net if you have questions and/or require further information regarding this biological analysis.

LSA ASSOCIATES, INC.

Sincerely,

Dan Sidle
Associate/Senior Biologist

Attachments: Table A. Special-Status Species Evaluated for the Project
Figure 1: Regional Location
Figure 2: Site Location
Figure 3: Riparian Canopy and Creek Setback

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Table A: Special-Status Species Evaluated for the Project Site

Species	Status (Federal/ State)	Habitat	Potential for Occurrence[a]
Plants			
Santa Cruz tarplant *Holocarpha macradenia*	FT/CE/1B	Occurs in sandy-clay soil in coastal prairie, coastal scrub, and in valley and foothill grassland. Elevation: 10-220 m. Blooms: June-October.	No suitable habitat present. Grasslands on the project site are highly disturbed, appear to have been previously graded, are regularly mowed, and colonized by introduced non-native plants.
Alkali milk-vetch *Astragalus tener* var. *tener*	–/1B	Occurs in alkaline soils in grasslands usually associated with vernal pools. Elevation unknown. Blooms March-June.	No suitable habitat present.
Big-scale balsamroot *Balsamorhiza macrolepis* var. *macrolepis*	–/1B	Occurs in open grassy or rocky slopes, valleys, sometimes serpentinite in chaparral, cismontane woodland, and valley and foothill grassland. Elevation: generally <= 1400 m. Blooms: March-July	No suitable habitat present.
Fragrant fritillary *Fritillaria liliacea*	–/1B	Occurs often on serpentine; various soils reported though usually clay, in grassland in coastal scrub, valley and foothill grassland, coastal prairie, and cismontane woodland. Elevation: 5-230 m. Blooms: February-April	No suitable habitat present.
Diablo helianthella *Helianthella castanea*	–/1B	Occurs in open, grassy sites, usually rocky, axonal soils in partial shade in broadleafed upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, and valley and foothill grassland. Elevation: 200--1300 m. Blooms: April-June	No suitable habitat present.
Fish			
Steelhead - Central California Coast Distinct Population Segment *Oncorhynchus mykiss irideus*	FT/–	Coastal streams from Russian River south to Aptos Creek (Santa Cruz Co.); includes streams tributary to San Francisco and San Pablo Bays.	San Lorenzo Creek is known to support steelhead (Leidy 2005). Segment of San Lorenzo Creek adjacent to the project site supports suitable spawning, rearing, and migration habitat, but segments downstream of the site supports poor quality habitat with potential barriers to migration (NOAA 2005).
Invertebrates			
Fairmont (Lum's) micro-blind harvestman *Microcina lumi*	–/–/G1, S1	Occurs beneath serpentine rocks in grassland in xeric habitats in the San Francisco Bay region.	No suitable habitat present. Closest CNDDB occurrence is approximately 0.8 mile from the site.

Species	Status (Federal/ State)	Habitat	Potential for Occurrence[a]
Amphibians			
California red-legged frog *Rana draytonii*	FT/SSC	Found in lowlands and foothills in or near permanent ponds and streams with dense, shrubby, or emergent riparian vegetation.	Habitat may be present in San Lorenzo Creek, but likely not present due to its urban setting and the likely presence of introduced predators. Closest CNDDB occurrences are approximately 1.1 miles from the site in Hollis Canyon, 1.4 miles from the site in Garin Regional Park, and 1.5 miles from the site in Hayward.
California tiger salamander *Ambystoma californiense*	FT/ST	Spends most of its life in underground burrows. Breeds in vernal pools and ponds, including cattle stock ponds. Breeds after the first rains in late fall and early winter, when the wet season allows the salamander to migrate to the nearest pond, a journey that may be over 1 mile and take several days. Lays eggs in small clusters or singly, which hatch after 14 to 21 days. The pools must hold water for a minimum of 12 weeks for the larvae to successfully metamorphose into their terrestrial form.	Although upland habitat is present within the grasslands, no suitable breeding habitat present in the project vicinity. Site's location within an urban setting surrounded by development limits the potential to occur on the site. No CNDDB occurrences within 5 miles of the project site.
Reptiles			
Western pond turtle *Emys marmorata*	–/SSC	Found in ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Requires basking sites and adjacent grasslands or other open habitat for egg-laying.	Suitable habitat with basking sites and plunge pools present in San Lorenzo Creek. No CNDDB occurrences within 5 miles of the project site.
Coast horned lizard *Phrynosoma blainvillii*	–/SSC	Found in open sunny habitats including grasslands, scrub, and open woodlands that support native ant populations.	No suitable habitat present. No CNDDB occurrences within 5 miles of the project site.
Alameda whipsnake *Masticophis lateralis euryxanthus*	FT/ST	Chaparral and sage scrub with rock outcrops and an abundance of prey species such as western fence lizard (*Sceloporus occidentalis*).	Not likely to occur due to lack of chaparral, the project site's urban setting, and the site's isolation from occupied habitat east of the site.
Birds			
White-tailed kite *Elanus leucurus*	–/CFP	Nests in shrubs and trees in open areas and forages in adjacent grasslands and agricultural land.	Suitable nesting habitat present in the trees on and adjacent to the site, but limited foraging habitat present in the grasslands. No CNDDB occurrences within 5 miles of the project site.
Northern harrier *Circus hudsonius*	–/SSC	Nests and forages in meadows, grasslands, open rangeland, and fresh or saltwater marshes.	Although grassland is on the site, this raptor is unlikely to occur due to the site's lack of cover within the grasslands and the grasslands relatively small size. No CNDDB occurrences within 5 miles of the project site.

Species	Status (Federal/ State)	Habitat	Potential for Occurrence[a]
Golden eagle *Aquila chrysaetos*	–/CFP	Forages in rolling foothill or coast-range terrain, with open grassland and scattered large trees. Nests in large trees, on cliffs, and occasionally on power line poles.	Grasslands provide limited foraging habitat. Eucalyptus trees near the site unlikely to provide nesting habitat, due to the site's urban setting. No large stick nests observed during the field survey. Closest CNDDB occurrence is approximately 1.3 miles from the site in Hayward.
American peregrine falcon *Falco peregrinus anatum*	Delisted/ Delisted/ CFP	Forages in open country, mountains, and sea coasts. Nests on high cliffs, bridges, and buildings.	No suitable nesting habitat present, grasslands too small to provide suitable foraging habitat.
Burrowing owl *Athene cunicularia*	–/SSC	Nests in burrows in grasslands and woodlands; often associated with ground squirrels. Will also nest in artificial structures (culverts, concrete debris piles, etc.).	May forage in the grasslands on the project site, but no suitable burrow sites present. Closest CNDDB occurrence is approximately 1.2 miles from the project site.
Yellow warbler *Setophaga petechia*	–/SSC	Riparian woodland; nests in dense shrubs or small trees (e.g., willows).	May briefly migrate through the riparian corridor adjacent to the site, but not known to nest in the region. Closest CNDDB occurrence is approximately 0.7 mile from the site in Cull Creek.
Loggerhead shrike *Lanius ludovicianus*	–/SSC	Found in grasslands and open shrub or woodland communities. Nests in dense shrubs or trees and forages in scrub, open woodlands, grasslands, and croplands. Frequently uses fences, posts, and utility lines as hunting perches.	Could forage in the grasslands and nest in the trees and shrubs on or adjacent to the site. No CNDDB occurrences within 5 miles of the project site.
Tricolored blackbird *Agelaius tricolor*	–/CE, SSC	Nests in dense vegetation near open water, forages in grasslands and agricultural fields.	No suitable nesting habitat present, could forage in grasslands. No CNDDB occurrences within 5 miles of the project site.
Mammals			
Townsend's western big-eared bat *Corynorhinus townsendii townsendii*	–/SSC	Found in wooded areas with caves or old buildings for roost sites.	No suitable roosting or hibernating habitat present. No CNDDB occurrences within 5 miles of the project site.
Western mastiff bat *Eumops perotis californicus*	–/SSC	Roosts in crevices in cliff faces, high buildings, trees and tunnels within open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, and chaparral.	No suitable roosting or hibernating habitat present on or adjacent to the site. Trees with large cavities or hollows observed on and adjacent to the site but unlikely to provide habitat in this urban setting. Closest CNDDB occurrence is an 1899 record from an unknown location in Hayward.
Pallid bat *Antrozous pallidus*	–/SSC	Occupies a wide variety of habitats at low elevations. Most commonly found in open, dry habitats with rocky areas for roosting.	Suitable roosting or hibernating habitat present within trees on or adjacent to the site. Trees with large cavities or hollows observed on and adjacent to the site. Closest CNDDB occurrence is from a specimen collected at an unknown location in Hayward.

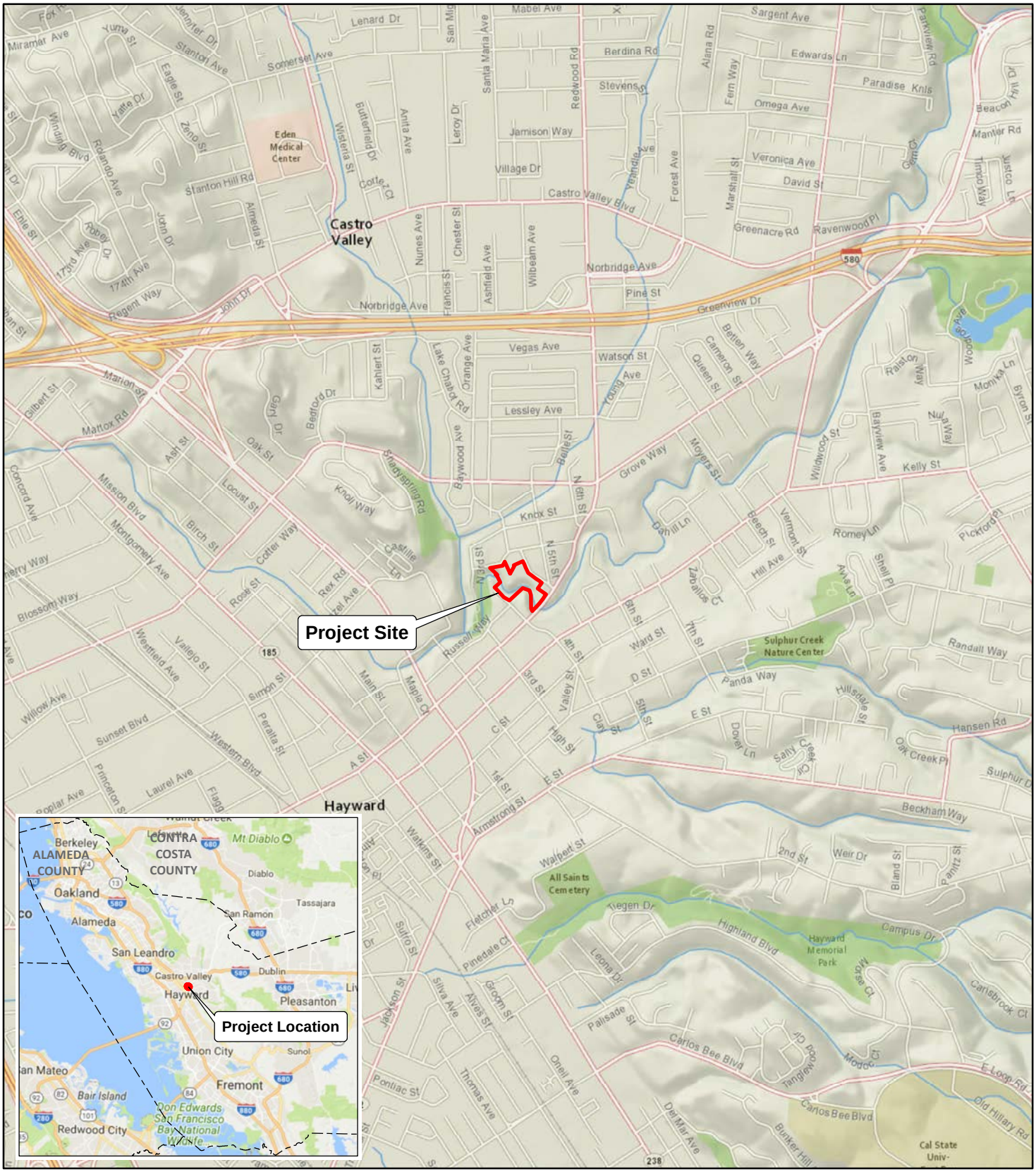
Species	Status (Federal/ State)	Habitat	Potential for Occurrence[a]
Yuma myotis *Myotis yumanensis*	–/ WBWG:LM	Roosts colonially in a variety of natural and human-made sites including caves, mines, buildings, bridges, and trees; in northern California, maternity colonies are usually in fire-scarred redwoods, pines, and oaks; forages for insects over bodies of water.	Suitable roosting or hibernating habitat present within trees on or adjacent to the site. Trees with large cavities or hollows observed on and adjacent to the site.
Western small-footed myotis *Myotis ciliolabrum*	–/WBWG:M	Roosts in rock outcrops, cliffs, beneath tree bark, mines, caves, tunnels, and buildings.	Suitable roosting or hibernating habitat present within trees on or adjacent to the site.
Long-eared myotis *Myotis evotis*	–/WBWG:M	Forages in woodlands; roosts in a variety of habitats including mines, buildings, caves, bridges, and rock crevices.	May roost along rocky crevices along San Lorenzo Creek adjacent to the site; may forage over the site.
Fringed myotis *Myotis thysanodes*	–/WBWG:H	Roosts in buildings, mines, large conifer snags, and caves.	Suitable roosting or hibernating habitat may be present within trees on or adjacent to the site. Trees with large cavities or hollows observed on and adjacent to the site.

Status Codes:

FE = Federally listed as an endangered species.
FT = Federally listed as a threatened species.
ST = State-listed as a threatened species.
CE = State-listed as a candidate endangered species.
CFP = State-listed as a fully protected species.
SSC = State Species of Special Concern.
List 1B = CRPR: plant considered rare, threatened, or endangered in California and elsewhere.
G1 = Critically Imperiled, At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.
S1 = Critically Imperiled, in the state because of extreme rarity (often 5 or fewer populations) or because of factor(s) such as very steep declines making it especially vulnerable to extirpation from the state.
WBWG = Western Bat Working Group: High (H), Medium (M), Low-Medium Priority (LM).
– = No status.

[a] Nearest records are based on CNDDB (CDFW 2018) occurrences unless otherwise noted.

Source: LSA 2019.



LSA

FIGURE 1

0 1000 2000
FEET

1744 Ruby Street
Castro Valley, Alameda County, California

Regional Location

SOURCE: National Geographic (c) 2018; Google Streets 2018.

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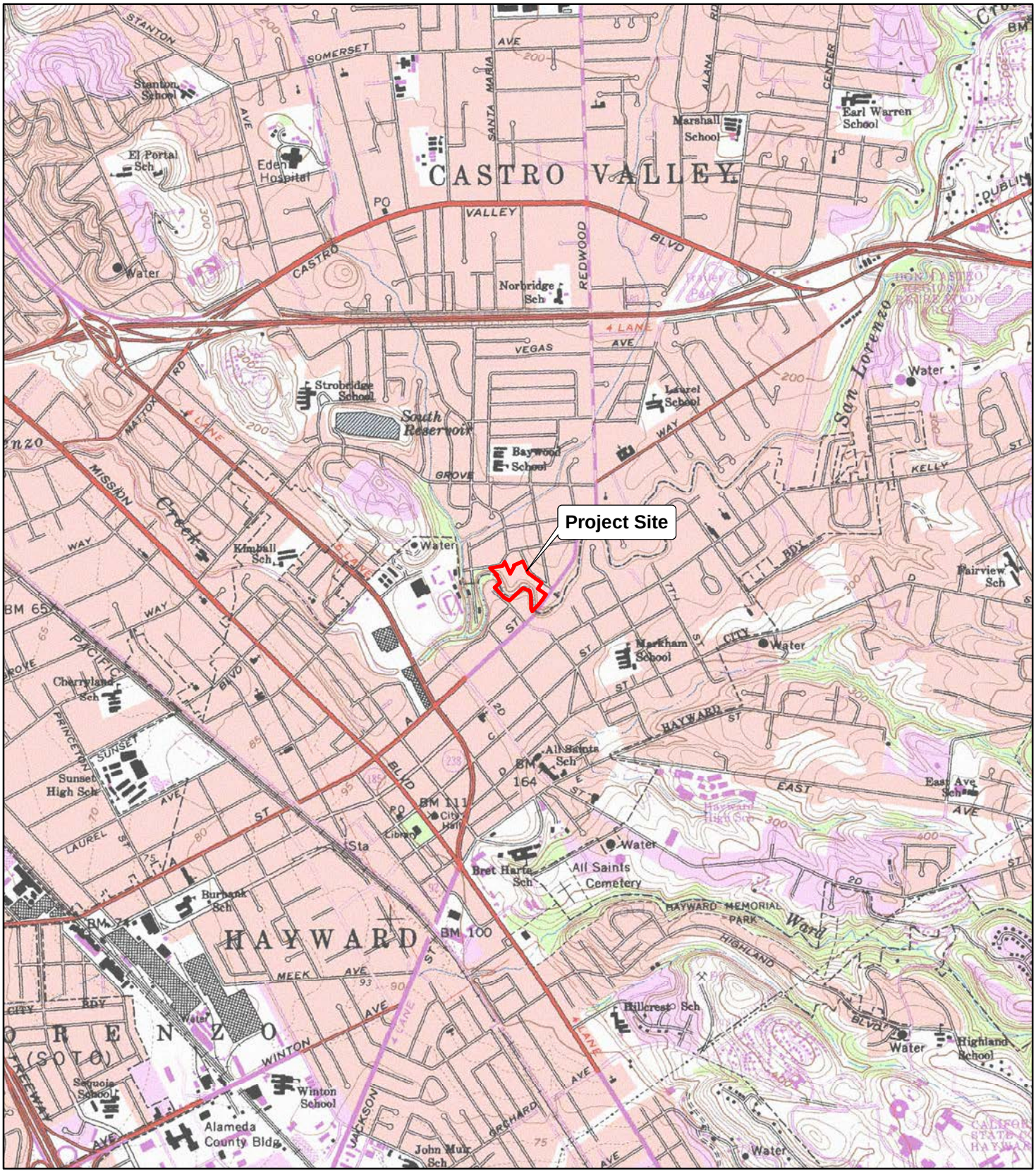

LSA

LEGEND

Project Site

FIGURE 2

N

0 1000 2000

FEET

1744 Ruby Street
Castro Valley, Alameda County, California

Site Location

SOURCE: 7.5-minute Quad: *Hayward, Calif.* (1980)

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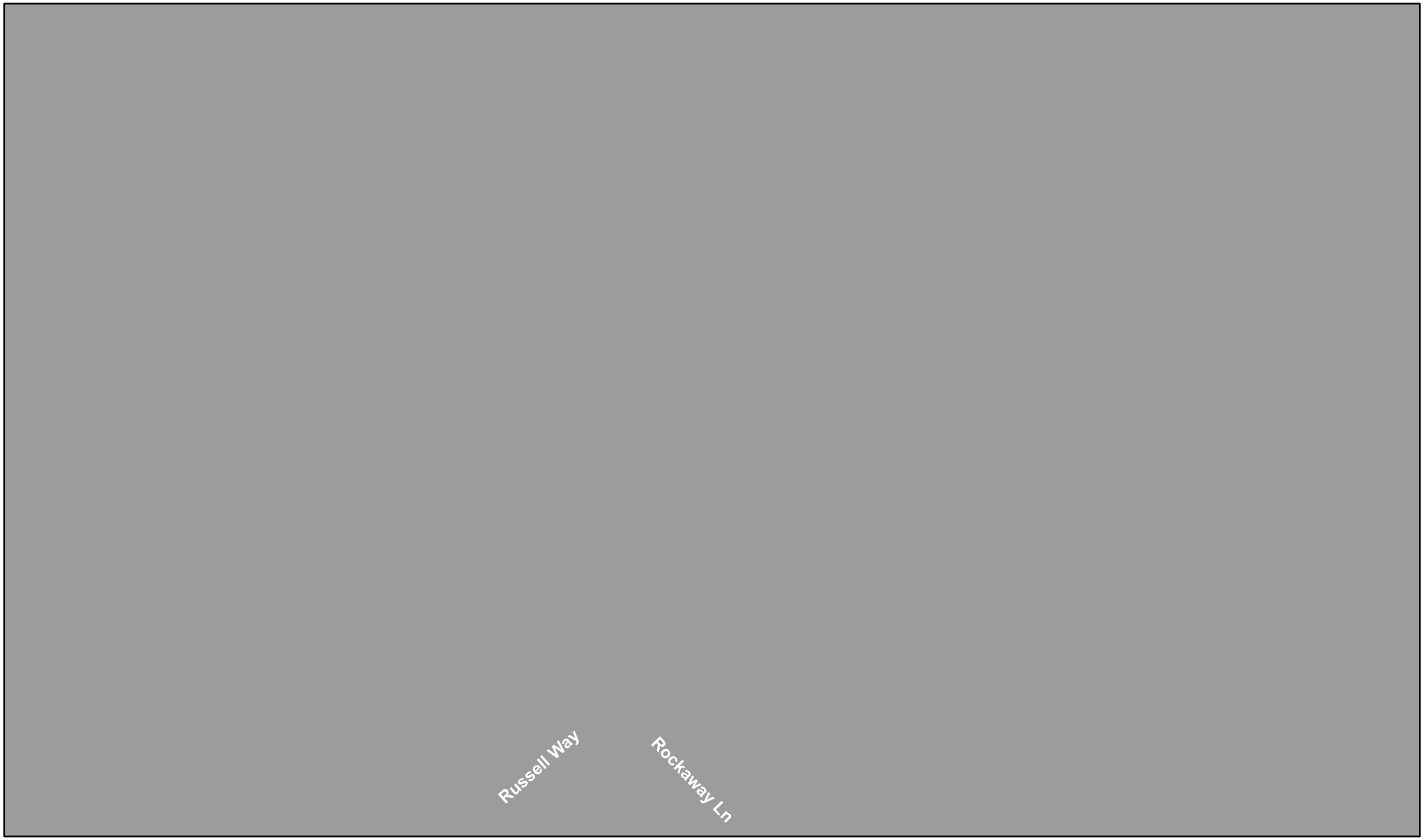

LSA

Legend

Project Boundary

Parcel

Edge of Riparian Canopy

Creek Setback

Creek Toe of Slope

N

0 75 150

FEET

FIGURE 3

1744 Ruby Street
Castro Valley, Alameda County, California

Riparian Canopy and Creek Setback

Source: Urban Planning Partners (2019); LSA (2019); Google (c) 2019.

I:\UPI1804\GIS\Maps\Revised Bio Resources Assessment\Figure 3_Riparian Canopy and Creek Setback.mxd (8/21/2019)