

**BIOLOGICAL RESOURCES
HABITAT ASSESSMENT**

**LA HONDA CREEK FEASIBILITY STUDY
SAN MATEO COUNTY, CALIFORNIA**

LSA

October 2022

This page intentionally left blank

**BIOLOGICAL RESOURCES
HABITAT ASSESSMENT**

**LA HONDA CREEK FEASIBILITY STUDY
SAN MATEO COUNTY, CALIFORNIA**

Submitted to:

Melissa Borgesi
Midpeninsula Regional Open Space District
330 Distel Circle
Los Altos, California 94022-1404

Prepared by:

LSA
157 Park Place
Pt. Richmond, California 94801
510.236.6810

Project No. RAA2102



October 2022

This page intentionally left blank

EXECUTIVE SUMMARY

The Midpeninsula Regional Open Space District (District) proposes the La Honda Creek Feasibility Study Project (project) at the La Honda Creek Open Space Preserve (Preserve) near the community of La Honda in San Mateo County, California. The feasibility study analyzes four sites that could be used as staging areas to access trails within the Preserve. Future staging areas were identified in the District's 2012 *La Honda Creek Open Space Preserve Master Plan* (Master Plan). Consistent with requirements of the California Environmental Quality Act, the District prepared an Initial Study/Mitigated Negative Declaration for the Master Plan, which identified less-than-significant impacts to biological resources.

To assist the District with its planning efforts, LSA prepared this Biological Resources Habitat Assessment to identify constraints to the project's implementation. The tasks undertaken for this study consisted of a literature and on-line database review, as well as biological resources field surveys.

This page intentionally left blank

TABLE OF CONTENTS

| | |
|---|-----------|
| EXECUTIVE SUMMARY | i |
| TABLE OF CONTENTS..... | iii |
| LIST OF ABBREVIATIONS AND ACRONYMS..... | v |
| 1.0 INTRODUCTION..... | 1 |
| 2.0 METHODS | 3 |
| 2.1 DATABASE SEARCH AND LITERATURE REVIEW | 3 |
| 2.2 NOMENCLATURE | 4 |
| 2.3 BIOLOGICAL SURVEYS..... | 4 |
| 3.0 BIOLOGICAL RESOURCES | 6 |
| 3.1 PLANT COMMUNITIES..... | 6 |
| 3.1.1 Valley and Foothill Grassland..... | 6 |
| 3.1.2 Cismontane Woodland..... | 6 |
| 3.1.3 North Coast Coniferous Forest/Redwood Forest | 7 |
| 3.1.4 Closed Cone Pine Forest..... | 7 |
| 3.1.5 Coastal Scrub..... | 8 |
| 3.1.6 Riparian Forest..... | 8 |
| 3.1.7 Freshwater Wetlands, Creeks, and Swales | 8 |
| 3.2 SOILS | 9 |
| 3.3 WILDLIFE HABITAT..... | 10 |
| 3.4 SPECIAL-STATUS SPECIES | 10 |
| 3.4.1 Special-Status Plant Species..... | 10 |
| 3.4.2 Special-Status Wildlife Species | 21 |
| 3.5 SENSITIVE NATURAL COMMUNITIES | 25 |
| 4.0 ANALYSIS OF IMPACTS AND RECOMMENDED MEASURES TO AVOID, MINIMIZE, AND MITIGATE POTENTIAL IMPACTS..... | 27 |
| 4.1 JURISDICTIONAL FEATURES..... | 27 |
| 4.2 AVOIDANCE AND MITIGATION MEASURES | 27 |
| 4.2.1 Waters of United States/State..... | 27 |
| 4.2.2 Riparian and Other Sensitive Natural Communities | 28 |
| 4.2.3 Special-Status Plants..... | 31 |
| 4.2.4 Special-Status Wildlife | 31 |
| 4.3 Protected Trees | 42 |
| 4.4 MIDPENINSULA REGIONAL OPEN SPACE DISTRICT RMPs..... | 43 |
| 5.0 REFERENCES..... | 48 |

TABLES

| | |
|---|----|
| Table A: Special-Status Species Evaluated for the Project | 11 |
| TABLE B. Potential Jurisdictional Habitats Delineated at Project Sites..... | 27 |

APPENDICES**A: FIGURES**

Figure 1: Project Locations

Figure 2: Project Sites

B: BOTANICAL RESOURCES AND JURISDICTIONAL DELINEATION MAPS, LA HONDA OPEN SPACE PRESERVE**C: LIST OF WILDLIFE DETECTED DURING LSA'S FIELD SURVEY**

LIST OF ABBREVIATIONS AND ACRONYMS

| | |
|-------------|---|
| CDFW | California Department of Fish and Wildlife |
| CEQA | California Environmental Quality Act |
| CESA | California Endangered Species Act |
| CNDDDB | California Natural Diversity Database |
| CNPS | California Native Plant Society |
| CRLF | California red-legged frog |
| CRPR | California Rare Plant Rank |
| dbh | diameter at breast height |
| District | Midpeninsula Regional Open Space District |
| EIR | Environmental Impact Report |
| ESA | Endangered Species Act |
| GIS | geographic information system |
| IS/MND | Initial Study/Mitigated Negative Declaration |
| Master Plan | La Honda Creek Open Space Preserve Master Plan |
| MCV | A Manual of California Vegetation, Second Edition |
| NMFS | National Marine Fisheries Service |
| OHWM | Ordinary High Water Mark |
| Preserve | La Honda Creek Open Space Preserve |
| project | La Honda Creek Feasibility Project |
| RMPs | Resource Management Policies |
| RWQCB | Regional Water Quality Control Board |
| SDFW | San Francisco dusky-footed woodrat |
| USACE | U.S. Army Corps of Engineers |

USFWS

U.S. Fish and Wildlife Service

USGS

U.S. Geological Survey

This page intentionally left blank

1.0 INTRODUCTION

The Midpeninsula Regional Open Space District (District) is completing the La Honda Creek Feasibility Study in order to evaluate four different sites as potential staging areas within the District's La Honda Creek Open Space Preserve (Preserve). The four sites are referred to as B2, B3, D, and E3. The Preserve is located near the unincorporated community of La Honda, San Mateo County, California. Figure 1 (Appendix A) depicts the project's regional location on the *La Honda, California*, 7.5-minute U.S. Geological Survey (USGS) topographic quadrangle.

The development of future staging areas was included in the District's 2012 *La Honda Creek Open Space Preserve Master Plan* (Master Plan). An Initial Study/Mitigated Negative Declaration (IS/MND) prepared for the Master Plan, consistent with the requirements of the California Environmental Quality Act (CEQA), identified less-than-significant impacts for biological resources with implementation of the Master Plan objectives and IS/MND mitigation measures that would minimize impacts to biological resources.

This Biological Resources Habitat Assessment was completed to identify biological resources that may be within the project's four proposed sites and to identify additional site-specific recommendations (if necessary) to minimize or avoid impacts to biological resources. This habitat assessment discusses potential impacts to biological resources and identifies mitigation measures to reduce potential impacts. The assessment addresses special-status species that are known to or have the potential to occur at the project site. The assessment describes and analyzes the following for the four sites: 1) existing habitat conditions; 2) special-status wildlife species that occur or have the potential to occur; 3) occurrences of special-status species in the vicinity; 4) sensitive habitat, including wetlands and creeks; 5) recommended surveys; and 6) minimization measures to reduce or eliminate adverse impacts. Tasks conducted for this assessment consisted of: 1) background document and on-line data base review; and 2) biological resources reconnaissance-level field surveys.

This page intentionally left blank

2.0 METHODS

2.1 DATABASE SEARCH AND LITERATURE REVIEW

LSA reviewed the existing documents provided by the District and reviewed on-line data bases regarding biological resources for the project. LSA reviewed and incorporated the findings of the following resources:

- California Department of Fish and Wildlife’s (CDFW) California Natural Diversity Database (CNDDDB) (CDFW 2022)
- California Native Plant Society’s (CNPS) Inventory of Rare and Endangered Plants (CNPS 2022)
- U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (USFWS 2022a)
- USFWS’s Critical Habitat Portal (USFWS 2022b)
- Vollmar Natural Lands Consulting (Vollmar) Botanical Survey Report (Vollmar 2021)
- Vollmar Delineation of Potential Jurisdictional Waters La Honda Creek Parking and Trailhead Feasibility Study (Vollmar 2022a)
- Vollmar Delineation of Potential Jurisdictional Waters of the United States for Site E3 (Vollmar 2022b)
- District special-status species geographic information system (GIS) layers (District 2021a)
- Mitigation Monitoring Program, La Honda Creek Open Space Preserve Master Plan, San Mateo County, California (District 2012)
- La Honda Creek Open Space Preserve Master Plan, Final Initial Study/Mitigated Negative Declaration (Ascent 2012)
- District San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*) protocol (District 2018)
- District *Best Management Practices for Avoiding and Minimizing Impacts to Bat Species*
- Sears Ranch Parking Area Biotic Assessment (AECOM 2016)
- La Honda Open Space Preserve – Winter Bat Survey for the Red Barn Public Access Project (H.T. Harvey 2017a)
- Sears Ranch Pre-demolition Bat Survey Report (H.T. Harvey 2017b)

- La Honda Open Space Preserve Bat Surveys for the Red Barn Public Access Project (H.T. Harvey 2017c)
- Impact Assessment and Mitigation/Action Recommendations for the Pallid Bat Colony in the La Honda Big Red Barn (Central Coast Bat Research Group 2001)
- Post-Construction Assessment for the Pallid Bat Colony in the La Honda Big Red Barn (Central Coast Bat Research Group 2002)
- La Honda Open Space Preserve Marbled Murrelet Surveys 2018 and 2019 (McAllister 2019)
- Automated Acoustic Surveys for Marbled Murrelet, Steller’s Jay, and Northern Spotted Owl in the Santa Cruz Mountains – 2020 and 2021 (Conservation Metrics 2021 and 2022)
- American Badger Habitat Suitability Assessment (District 2019)
- La Honda Creek Open Space Preserve Amphibian and Reptile List (District 2022a)
- Birds Observed at the La Honda Creek Open Space Preserve (District 2013)
- eBird on-line data base (eBird 2022)
- Ambient and Action-Generated Noise Level Study (VACC 2013)

2.2 NOMENCLATURE

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 (ucjeps.berkeley.edu/eflora/); amphibians and reptiles, Crother (2017) and/or AmphibiaWeb (www.amphibiaweb.org); birds, American Ornithologists’ Union (1998) and supplements through 2022; and mammals, Bradley et al. (2014).

2.3 BIOLOGICAL SURVEYS

LSA senior biologist Dan Sidle conducted the biological surveys and field assessments on December 3, 2021. During the field surveys, LSA assessed the habitat at the four sites to determine their potential to support special-status wildlife species, such as:

- monarch butterfly (*Danaus plexippus*);
- obscure bumble bee (*Bombus caliginosus*);
- western bumble bee (*Bombus occidentalis*);
- steelhead (*Oncorhynchus mykiss irideus*);
- California red-legged frog (*Rana draytonii*; CRLF);

- California giant salamander (*Dicamptodon ensatus*);
- Santa Cruz black salamander (*Aneides flavipunctatus niger*);
- San Francisco garter snake (*Thamnophis sirtalis tetrataenia*);
- western pond turtle (*Emys marmorata*);
- burrowing owl (*Athene cunicularia*);
- marbled murrelet (*Brachyramphus marmoratus*);
- other special-status birds;
- San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*; SDFW);
- pallid bat (*Antrozous pallidus*);
- Townsend's big-eared bat (*Corynorhinus townsendii*);
- western red bat (*Lasiurus blossevillii*);
- ringtail (*Bassariscus astutus*); and
- American badger (*Taxidea taxus*).

3.0 BIOLOGICAL RESOURCES

3.1 PLANT COMMUNITIES

The four sites are situated in the Santa Cruz Mountains, a mountain range that forms a ridge along the San Francisco Peninsula separating the San Francisco bayshore population centers to the east from the Pacific Ocean to the west. The sites and surrounding terrain are rugged, formed by a combination of geologic uplift and faulting along the San Andreas, Pilarcitos, and San Gregorio faults. The four sites are referred to as B2, B3, D, and E3 (Figures 1 and 2 in Appendix A). The sites include wooded and grassy habitat, with an elevation range of 620 to 720 feet above sea level at Sites B2/B3, 610 to 780 feet above sea level at Site D, and 1,000-1,100 feet above sea level at Site E3. Sites B2 and B3 are located west of La Honda Creek and Sites D and E3 are located east of La Honda Creek, while the existing bridge at Site D crosses La Honda Creek. La Honda Creek is a major tributary within the San Gregorio Creek watershed that flows in a southerly direction from its headwaters near Bear Gulch Road and Skyline Boulevard to its confluence with Alpine Creek where it forms the main stem of San Gregorio Creek. Vollmar (2021) conducted botanical surveys at or in the vicinity of the four sites on March 2, May 11, 12, 14, and 20, and August 13, 18, and 20, 2021 and mapped seven plant communities within the four sites: Valley and Foothill Grassland, Cismontane Woodland, North Coast Coniferous Forest, Closed Cone Pine Forest, Riparian Forest, and Coastal Scrub, and Freshwater Wetland. Additionally, Redwood Forest was mapped within the North Coast Coniferous Forest at Site D. Redwood Forest is considered a sensitive plant community in *A Manual of California Vegetation, Second Edition* (MCV; Sawyer et al. 2009).

3.1.1 Valley and Foothill Grassland

Valley and Foothill Grassland occurs in all four sites (Appendix B). This community is being grazed by cattle at Sites B2 and B3 and mowed at Site E3 and along the road shoulder at Site D. Dominant plant species identified in this habitat include non-native species, such as slender wild oat (*Avena barbata*), brome species (*Bromus* spp.), hare barley (*Hordeum murinum*), bindweed (*Convolvulus arvensis*), burclover (*Medicago polymorpha*), Italian rye grass (*Festuca perennis*), cat's-ear (*Hypochaeris* spp.), rose clover (*Trifolium hirtum*), narrowleaved clover (*T. angustifolium*), Harding grass (*Phalaris corniculatus*), black mustard (*Brassica nigra*), bristly ox-tongue (*Helminthotheca echioides*), English plantain (*Plantago lanceolata*), and bull thistle (*Cirsium vulgare*). Native species present include miniature lupine (*Lupinus bicolor*), tomcat clover (*Trifolium willdenovii*), sun cup (*Taraxia ovata*), California poppy (*Eschscholzia californica*), and spreading rush (*Juncus patens*). Vollmar did not observe any special-status plants within the Valley and Foothill Grassland habitat, but a stand of beardless wild rye (*Elymus triticoides*) was observed near Site B2. Beardless wild rye (also known as creeping rye grass) forms the creeping rye grass turfs (*Elymus [=Leymus] triticoides*) Herbaceous Alliance, which is considered a sensitive plant community in the MCV (Sawyer et al. 2009).

3.1.2 Cismontane Woodland

Cismontane Woodland occurs within or adjacent to all four sites (Appendix B). As coast live oak (*Quercus agrifolia*) is often a dominant species, much of the habitat would likely qualify in the MCV as Coast Live Oak Woodland. Other trees in this community include California bay (*Umbellularia*

californica), black oak (*Quercus kelloggii*), California buckeye (*Aesculus californica*), Pacific madrone (*Arbutus menziesii*), and Douglas fir (*Pseudotsuga menziesii*). The most common shrub and vine species observed include California blackberry (*Rubus ursinus*), poison oak (*Toxicodendron diversilobum*), oceanspray (*Holodiscus discolor*), coyote brush (*Baccharis pilularis*), and California hazelnut (*Corylus cornuta*). The observed underlying herbaceous plants consisted of rough hedgenettle (*Stachys rigida*), creeping snowberry (*Symphoricarpos mollis*), milk maids (*Cardamine californica*), miner's lettuce (*Claytonia* spp.), coastal woodfern (*Dryopteris arguta*), and spreading rush. Western leatherwood (*Dirca occidentalis*), a special-status plant species, was observed within the Cismontane Woodland northeast of Site D during Vollmar's surveys (Appendix B).

3.1.3 North Coast Coniferous Forest/Redwood Forest

The North Coast Coniferous Forest/Redwood Forest plant community occurs within Site D and is dominated by coast redwood (*Sequoia sempervirens*) with Douglas fir, tanoak (*Notholithocarpus densiflorus*), California bay, and a few scattered coast live oaks and big-leaf maple (*Acer macrophyllum*) (Appendix B). Other plants observed in this community include California nutmeg (*Torreya californica*), toyon (*Heteromeles arbutifolia*), snowberry (*Symphoricarpos albus*), blood currant (*Ribes sanguineum*), starry false lily of the valley (*Maianthemum stellatum*), western sword fern (*Polystichum munitum*), Pacific starflower (*Lysimachia latifolia*), hound's tongue (*Cynoglossum grande*), creeping snowberry, California blackberry, California hazelnut, and coastal woodfern. California bottle-brush grass (*Elymus californicus*), a special-status plant species, was observed in the North Coast Coniferous Forest near Site D. Four locally rare plant species, Scouler's willow (*Salix scouleriana*), foamflower (*Tiarella trifoliata*), red baneberry (*Actaea rubra*), and California bedstraw (*Galium californicum*), were also observed in the North Coast Coniferous Forest near Site D.

3.1.3.1 Redwood Forest

Within the North Coast Coniferous Forest are stands of coast redwood trees that constitute Redwood Forest as defined in the MCV. The MCV membership rule for Redwood Forest stipulates that coast redwood accounts for greater than 50 percent relative cover in the tree canopy, or greater than 30 percent relative cover with other conifers or with a lower tier of hardwood trees such as tanoak (Sawyer et al. 2009). As defined, Redwood Forest is ranked as S3.2 and G3 and is therefore considered rare and threatened at both the State level and the global level. Redwood Forest is present near the bridge at Site D and along Weeks Creek southeast of Site E3. California bottle-brush grass was observed within Redwood Forest near Site D (Appendix B).

3.1.4 Closed Cone Pine Forest

Closed cone pine forest occurs within Site E3 and along the road shoulder of Site B2 as a cultivated plant community consisting of planted Monterey pine (*Pinus radiata*). Native stands of these trees are considered special-status species and sensitive plant communities, but these trees are not associated with a native stand and occur outside of the range of the species. Associated species include coast live oak, blue gum eucalyptus (*Eucalyptus globulus*), and various cultivar tree species. Understory vegetation includes coyote brush, poison oak, creeping snowberry, and non-native grasses.

3.1.5 Coastal Scrub

Coastal Scrub was mapped at Sites B2 and B3 (Appendix B). Coyote brush is the most dominant shrub in this habitat, while sticky monkeyflower (*Diplacus aurantiacus*), poison oak, and California blackberry are also present. Openings in this community supported non-native grasses and forbs, similar to what is present within the Valley and Foothill Grassland plant community.

3.1.6 Riparian Forest

Riparian Forest is present at the existing bridge at Site D where the bridge crosses La Honda Creek. Vegetation at the bridge includes coast redwood, Pacific madrone, big leaf maple, western sword fern, bracken fern (*Pteridium aquilinum*), French broom (*Genista monspessulana*), California blackberry, and redwood sorrel (*Oxalis oregana*). Other plant species observed along La Honda Creek or the adjacent Weeks Creek include bigleaf maple (*Acer macrophyllum*), beaked hazelnut (*Corylus cornuta*), redwood violet (*Viola sempervirens*), California bay, California blackberry, and creeping snowberry (Vollmar 2022a). Two locally rare plant species, Scouler's willow and foamflower, were also observed in the Riparian Forest near the bridge at Site D, but these plants would likely be avoided during construction of the new bridge. The Riparian Forest at the bridge at Site D is likely subject to CDFW jurisdiction and therefore, impacts to the riparian habitat would likely require a CDFW Section 1602 Lake or Streambed Alteration Agreement. No wetland vegetation was observed in the creek channel at the bridge.

Riparian Forest is also present along Weeks Creek southeast of Site E3. Plant species observed along this segment of Weeks Creek include thimbleberry (*Rubus parviflorus*), coast redwood, California buckeye, California bay, bigleaf maple, beaked hazelnut, California blackberry, western sword fern, bracken fern, redwood sorrel, and rough hedgenettle (Vollmar 2022b)

3.1.7 Freshwater Wetlands, Creeks, and Swales

Wetlands, creeks, and/or swales were mapped at Sites B3, E3, and D (Appendix B).

3.1.7.1 Site B3 Freshwater Wetland

Two seep wetlands were identified within Site B3 (Figure 3a in Vollmar 2022a; Appendix B). Plant species observed in the wetlands include Mediterranean barley (*Hordeum marinum* ssp. *gussoneanum*), spiny fruit buttercup (*Ranunculus muricatus*), western manna grass (*Glyceria Xoccidentalis*), cutleaf geranium (*Geranium dissectum*), shamrock (*Trifolium dubium*), burclover, spreading rush, and Italian rye grass, (Vollmar 2022a).

3.1.7.2 Site E3 Jurisdictional Channels

Incised Non-Wetland Channel

Potential Waters of the United States (U.S. Army of Corps of Engineers [USACE]) and/or Waters of the State of California (CDFW and/or RWQCB) occur at Site E3. A 0.013-acre incised non-wetland channel, which would be potentially jurisdictional as other Waters of the United States and would likely be jurisdictional under both the CDFW and RWQCB, is present along the central portion of Site E3 (Figure 3 in Vollmar 2022b; Appendix B). This channel did not contain wetland vegetation and or

exhibit indicators of an Ordinary High Water Mark (OHWM) due to its ephemeral hydrology. This channel may be artificially incised by the configuration of a culvert and therefore, may not be federally jurisdictional (Vollmar 2022b). The channel forms a small tributary to Weeks Creek, and therefore, is potentially jurisdictional as an Other Water of the United States (Vollmar 2022b). The incised non-wetland channel is outside of the proposed development footprint and would be avoided.

Non-wetland Drainage Swale

Site E3 includes 0.015 acre of non-wetland drainage swales that may have been excavated for the purpose of consolidating and redirecting water away from Highway 84 (Vollmar 2022b; Figure 3 in Vollmar 2022b; Appendix B). These swales contain hydric soils and convey water during and likely after rain events, but support limited wetland vegetation. Plants observed within the swales include primarily weedy herbaceous plants, such as common vetch (*Vicia sativa*), soft chess (*Bromus hordeaceus*), Italian rye grass, English plantain, and Harding grass. Sparse native and/or wetland plants observed in the swales include Mexican rush (*Juncus mexicanus*), California canary grass (*Phalaris californica*), and coyote brush (Vollmar 2022b). The non-wetland drainage swale and culvert may be impacted by a proposed 12- to 20-foot-wide road and culvert.

3.1.7.3 Site D Wetland Channel

A 0.01-acre wetland channel is present near the northeast corner Site D (Figure 3c in Vollmar 2022a; Appendix B). Vegetation within this wetland is dominated by coast redwood and tanoak (*Notholithocarpus densiflorus*) with understory vegetation consisting of French broom (*Genista monspessulana*), poison oak (*Toxicodendron diversilobum*), and giant chain fern (*Woodwardia fimbriata*) (Vollmar 2022a). This wetland channel is outside of the proposed development footprint and would be avoided.

3.1.7.4 La Honda Creek at Site D Bridge

La Honda Creek occurs beneath the Site D bridge (Figure 3c in Vollmar 2022a; Appendix B). At the location of the bridge, the creek does not support sufficient vegetation to be classified as wetlands, since the area supports less than 5 percent vegetation cover (Vollmar 2022a). The total area of stream habitat delineated below the OHWM of the creek is 0.044 acre (Figure 3c in Vollmar 2022a; Appendix B). Sparse vegetation observed along the lower bank slopes of the La Honda Creek and adjacent Weeks Creek stream channels include giant horsetail (*Equisetum telmateia*), stream dogwood (*Cornus sericea*), western burning bush (*Euonymus occidentalis*), California blackberry, and giant chain fern.

3.2 SOILS

Soils within the four sites are mapped as Pomponio clay loam (Site B2), Pomponio loam (Site B3), Sweeney clay loam (Site B2, B3, and D), Laughlin-Sweeney loam (Site D), Butano loam (Site D), Santa Lucia loam (Site E3), and Mindego clay loam (Site D). These soils are well drained to moderately well drained acidic clay or clay loam soils that are derived from sandstone, shale, basalt, or alluvium (USDA 2021 as cited in Vollmar 2021).

3.3 WILDLIFE HABITAT

Wildlife that inhabit the four sites include species that occur in grassland, forest, and/or scrub habitats. Wildlife or wildlife sign detected during LSA's surveys consisted of Pacific treefrog (*Hyla regilla*), Botta's pocket gopher (*Thomomys bottae*) burrows, black-tailed deer (*Odocoileus hemionus*), SFDW houses, and numerous bird species. The only special-status species detected during LSA's surveys consisted of SFDW, which is a California Species of Special Concern. A list of wildlife species detected during the surveys is provided in Appendix C.

3.4 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 (CRPR) Lists 1A, 1B, 2, 3, and 4;
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.

3.4.1 Special-Status Plant Species

Out of 22 special-status plants (Table A) evaluated as having the potential to occur within the four sites due to the presence of suitable habitat, Vollmar (2021) observed two special-status plant species during their 2021 surveys, both at Site D. These two plant species are described below.

3.4.1.1 Western Leatherwood

Western leatherwood is a deciduous shrub that is found in the San Francisco Bay Area in Alameda, Contra Costa, Marin, Santa Clara, San Mateo, and Sonoma counties, at elevations ranging from 82 to 1,394 feet (25 to 425 meters) (CNPS 2022). The shrub occurs in "generally north or northeast facing slopes, mixed-evergreen forest to chaparral, generally in fog belt" (Jepson eFlora 2021). Western leatherwood is designated as a CRPR List 1B.2 plant species, indicating the taxon is "rare, threatened, or endangered in California and elsewhere" ("1B") and "moderately threatened in California" ("0.2"). Fewer than five individual plants were observed within the Cismontane Woodland habitat northeast of Site D (See LH-2 Botanical Resources Map in Appendix B).

3.4.1.2 California Bottle-Brush Grass

California bottle-brush grass is found in Marin, Santa Cruz, San Mateo, and Sonoma counties, at elevations ranging from 49 to 1,542 feet (15 to 470 meters) in conifer forests (Jepson eFlora 2021). California bottle-brush grass is designated as a CRPR List 4.3 species, indicating the taxon is of

“limited distribution” (“4”) and “not very threatened in California” (“0.3”) (CNPS 2022). This species was observed in the North Coast Coniferous Forest/Redwood Forest habitat at seven locations adjacent to Site D (See LH-2 Botanical Resources Map in Appendix B). Most of the observed patches included 20 to 50 individual plants, while one patch included 10 to 20 plants and another included less than 5 plants.

Table A: Special-Status Species Evaluated for the Project

| Species | Status (Federal/State) | Habitat | Potential for Occurrence ^a |
|---|------------------------|---|---|
| Plants | | | |
| <i>Amsinckia lunaris</i> Bent-flowered fiddleneck | –/List 1B.2 | Coastal bluff scrub, cismontane woodland, valley and foothill grassland; 5-1,640 feet; March-June. | Suitable habitat present. Not observed during botanical surveys conducted by Vollmar in 2021. |
| <i>Androsace elongata</i> ssp. <i>acuta</i> California androsace | –/List 4.2 | Chaparral, cismontane woodland, coastal scrub, meadows and seeps, pinyon and juniper woodland, valley and foothill grassland; 490-4,280 feet; March-June. | Suitable habitat present, but not documented in the vicinity. Not observed during botanical surveys conducted by Vollmar in 2021. |
| <i>Arctostaphylos andersonii</i> Anderson’s manzanita | –/List 1B.2 | Broadleafed upland forest, chaparral, North Coast coniferous forest, openings, edges; 195-2,495 feet; November-May. | Suitable habitat present. Not observed during botanical surveys conducted by Vollmar in 2021. |
| <i>Calandrinia breweri</i> Brewer’s calandrinia | –/List 4.2 | Chaparral, coastal scrub, sandy or loamy, disturbed sites and burns; 30-4,005 feet; (January) March-June. | Suitable habitat present (but typically associated with burns). Not observed during botanical surveys conducted by Vollmar in 2021. |
| <i>Calandrinia breweri</i> Brewer’s calandrinia | –/List 4.2 | Chaparral, coastal scrub, sandy or loamy, disturbed sites and burns; 30-4,005 feet; (January) March-June. | Suitable habitat present (but typically associated with burns). Not observed during botanical surveys conducted by Vollmar in 2021. |
| <i>Clarkia concinna</i> ssp. <i>automixa</i> Santa Clara red ribbons | –/List 4.3 | Chaparral, cismontane woodland; 295-4,920 feet; (April) May-June (July). | Suitable habitat present. Not observed during botanical surveys conducted by Vollmar in 2021. |
| <i>Collinsia multicolor</i> San Francisco collinsia | –/List 1B.2 | Closed-cone coniferous forest, coastal scrub, sometimes serpentinite; 95-820 feet; (February) March-May. | Suitable habitat present. Not observed during botanical surveys conducted by Vollmar in 2021. |
| <i>Cypripedium montanum</i> Mountain lady’s-slipper | –/List 4.2 | Broadleafed upland forest, cismontane woodland, lower montane coniferous forest, North Coast coniferous forest; 605-7,300 feet; March-August. | Suitable habitat present. Not observed during botanical surveys conducted by Vollmar in 2021. |
| <i>Dirca occidentalis</i> Western leatherwood | –/List 1B.2 | Broadleafed upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, North Coast coniferous forest, riparian forest, riparian woodland, mesic; 80-1,395 feet; January-March (April). | Observed northeast of Site D within the Cismontane Woodland during botanical surveys conducted by Vollmar in 2021. Not observed at the three other sites during botanical surveys conducted by Vollmar in 2021. |

Table A: Special-Status Species Evaluated for the Project

| Species | Status (Federal/ State) | Habitat | Potential for Occurrence ^a |
|---|-------------------------|---|---|
| <i>Elymus californicus</i> California bottle-brush grass | -/List 4.3 | Broadleafed upland forest, cismontane woodland, North Coast coniferous forest, riparian woodland; 45-1,540 feet; May-August (November). | Observed in the North Coast Coniferous Forest/Redwood Forest near Site D during Vollmar's surveys. Not observed at the three other sites during botanical surveys conducted by Vollmar in 2021. |
| <i>Fritillaria liliacea</i> Fragrant fritillary | -/List 1B.2 | Cismontane woodland, coastal prairie, coastal scrub, valley and foothill grassland, often serpentinite; 5-1,345 feet; February-April. | Suitable habitat present (though no serpentinite). Not observed during botanical surveys conducted by Vollmar in 2021. |
| <i>Grindelia hirsutula</i> var. <i>maritima</i> San Francisco gumplant | -/List 3.2 | Coastal bluff scrub, coastal scrub, valley and foothill grassland, sandy or serpentinite; 45-1,310 feet; June-September. | Suitable habitat present (though generally documented closer to the coast). Not observed during botanical surveys conducted by Vollmar in 2021. |
| <i>Hosackia gracilis</i> Harlequin lotus | -/List 4.2 | Broadleafed upland forest, coastal bluff scrub, closed-cone coniferous forest, cismontane woodland, coastal prairie, coastal scrub, meadows and seeps, marshes and swamps, North Coast coniferous forest, valley and foothill grassland, wetlands, roadsides; 0-2,295 feet; March-July. | Suitable habitat present. Not observed during botanical surveys conducted by Vollmar in 2021. |
| <i>Iris longipetala</i> Coast iris | -/List 4.2 | Coastal prairie, lower montane coniferous forest, meadows and seeps, mesic; 0-1,970 feet; March-May. | Suitable habitat present. Not observed during botanical surveys conducted by Vollmar in 2021. |
| <i>Malacothamnus arcuatus</i> Arcuate bush-mallow | -/List 1B.2 | Chaparral, cismontane woodland; 45-1,165 feet; April-September. | Suitable habitat present. Not observed during botanical surveys conducted by Vollmar in 2021. |
| <i>Pedicularis dudleyi</i> Dudley's lousewort | -/CR, List 1B.2 | Chaparral (maritime), cismontane woodland, North Coast coniferous forest, valley and foothill grassland; 195-2,955 feet; April-June. | Suitable habitat present. Not observed during botanical surveys conducted by Vollmar in 2021. |
| <i>Pinus radiata</i> Monterey pine | -/List 1B.1 | Closed-cone coniferous forest, cismontane woodland; 80-605 feet; no blooming period listed. | Suitable habitat present, but native only to Monterey County (not considered rare in Preserve). |
| <i>Piperia candida</i> White-flowered rein orchid | -/List 1B.2 | Broadleafed upland forest, lower montane coniferous forest, North Coast coniferous forest, sometimes serpentinite; 95-4,300 feet; (March) May-September. | Suitable habitat present. Not observed during botanical surveys conducted by Vollmar in 2021. |
| <i>Plagiobothrys chorisianus</i> var. <i>chorisianus</i> Choris' popcornflower | -/List 1B.2 | Chaparral, coastal prairie, coastal scrub, mesic; 5-525 feet; March-June. | Suitable habitat present (though species range is a little below study area elevation range). Not observed during botanical surveys conducted by Vollmar in 2021. |
| <i>Polemonium carneum</i> Oregon polemonium | -/List 2B.2 | Coastal prairie, coastal scrub, lower montane coniferous forest; 0-6,005 feet; April-September. | Suitable habitat present. Not observed during botanical surveys conducted by Vollmar in 2021. |

Table A: Special-Status Species Evaluated for the Project

| Species | Status (Federal/ State) | Habitat | Potential for Occurrence ^a |
|--|---|--|--|
| <i>Silene scouleri</i> ssp. <i>scouleri</i> Scouler's catchfly | –/List 2B.2 | Coastal bluff scrub, coastal prairie, valley and foothill grassland; 0-1,970 feet; (March-May) June-August (September). | Suitable habitat present. Not observed during botanical surveys conducted by Vollmar in 2021. |
| <i>Trifolium buckwestiorum</i> Santa Cruz clover | –/List 1B.1 | Broadleafed upland forest, cismontane woodland, coastal prairie, gravelly, margins; 340-2,000 feet; April-October. | Suitable habitat present. Not observed during botanical surveys conducted by Vollmar in 2021. |
| Invertebrates | | | |
| Obscure bumble bee <i>Bombus caliginosus</i> | –/–, S1S2 | Coastal areas from northern Washington to southern California. Feeds on <i>Baccharis</i> , <i>Cirsium</i> , <i>Lupinus</i> , <i>Lotus</i> , <i>Grindelia</i> , <i>Phacelia</i> , <i>Ceanothus</i> , <i>Salix</i> , <i>Rubus</i> , and other species. | Suitable habitat may be present where nectar-plants are present, but species is rare in region. Closest CNDDDB record is a 1931 record from an unknown location in La Honda. |
| Western bumble bee <i>Bombus occidentalis</i> | –/CC, S1 | Variety of habitat types, supporting native flowering plants. Species has declined precipitously perhaps from disease. | May occur at site. Closest CNDDDB occurrence is a 1919 record approximately 3.6 miles from Site E3. |
| Bay checkerspot butterfly <i>Euphydryas editha bayensis</i> | FT/– | Shallow, serpentine soils that support larval host plants (<i>Plantago erecta</i>). | No suitable habitat present. Critical Habitat designated in the Jasper Ridge Unit approximately 3.6 miles northeast of Site E3, 4.4 miles northeast of Site D, and 5.8 miles northeast of Sites B2/B3. Closest CNDDDB occurrence is a 1997 record in Jasper Ridge, approximately 3.9 miles from Site E3. |
| Monarch - California Overwintering Population <i>Danaus plexippus</i> | FC/– Sensitive Winter Roosting Sites | Winter roosts along the coast from northern Mendocino to Baja California, Mexico in wind-protected tree groves (eucalyptus, Monterey pine, cypress) with nectar and water sources nearby. Requires milkweeds (<i>Asclepias</i> sp.) host plants for breeding. | No suitable roosting habitat present. Eucalyptus trees at Site D and other trees on the sites are not sheltered enough to provide suitable roosting habitat and over 2 miles from the coast, which are where wintering aggregations typically occur. This species could migrate through the sites. No milkweeds observed during botanical surveys conducted at the sites in 2021 (Vollmar 2021). No CNDDDB occurrences recorded within 5 miles of the sites. |

Table A: Special-Status Species Evaluated for the Project

| Species | Status (Federal/ State) | Habitat | Potential for Occurrence ^a |
|---|-------------------------|---|--|
| Fish | | | |
| Steelhead (central California coast Distinct Population Segment) <i>Oncorhynchus mykiss</i> | FT/CSC | Coastal streams from Russian River south to Aptos Creek (Santa Cruz Co.), including streams tributary to San Francisco and San Pablo Bays. | Species known to occur in La Honda Creek at the D-LH107 bridge. La Honda Creek is approximately 1,180 feet from Site E3 and 910 feet from Sites B2/B3 (on the other side of the State Route 84). Known from several locations within La Honda Creek (CDFG 2003 and Jones & Stokes 2004 as cited in Ascent 2012). Rearing habitat is present; limited spawning habitat in the Preserve (Ascent 2012) and poor migration habitat present (NMFS 2005). Creeks in the Preserve are designated as Critical Habitat. Critical Habitat is designated in La Honda Creek. Closest CNDDDB occurrences are approximately 0.1 mile from Sites B2/B3 in San Gregorio Creek, 1.7 miles from Sites B2/B3 in Mindego Creek, and 3.2 miles from Sites B2/B3 in Pescadero Creek. |
| Coho salmon (Central California Coast Evolutionary Significant Unit) <i>Oncorhynchus kisutch</i> | FE/CE | Coastal streams from Punta Gorda in northern California down to and including the San Lorenzo River in central California, as well as tributaries to San Francisco Bay. | Suitable habitat present in La Honda Creek at the D-LH107 bridge. Species documented in San Gregorio Creek watershed (Nelson 2006 as cited in Ascent 2012), and historically documented in La Honda Creek. Rearing habitat is present; limited spawning habitat in the Preserve (Ascent 2012). La Honda, Bogess, and Harrington Creeks in the Preserve are designated as Critical Habitat. |

Table A: Special-Status Species Evaluated for the Project

| Species | Status (Federal/ State) | Habitat | Potential for Occurrence ^a |
|--|-------------------------|--|---|
| Amphibians | | | |
| California tiger salamander <i>Ambystoma californiense</i> | FT/CT | Breeds in vernal pools, ponds, and stock ponds. Spends summer and early fall in uplands surrounding breeding sites, taking refuge in small mammal burrows or other underground cover. | Although suitable breeding habitat may be present in the Preserve and suitable upland habitat is present in the grasslands, species is not known to occur in the Preserve (Ascent 2012). No CNDDDB occurrences recorded within 5 miles of the sites. |
| California giant salamander <i>Dicamptodon ensatus</i> | -/CSC | Aquatic larvae found in cold, clear streams, occasionally in lakes and ponds; adults known from wet forests under rocks; known from wet coastal forests near streams and seeps from Mendocino County south to Monterey County and east to Napa County. | Suitable aquatic habitat present in La Honda Creek near the Site D bridge and in other stream channels near the sites. Suitable upland habitat present in riparian woodland habitat at Site D and in riparian woodland near Site E3. Closest CNDDDB occurrence is an 1893 record mapped at an unknown location in La Honda. |
| Santa Cruz black salamander <i>Aneides flavipunctatus niger</i> | -/CSC | Mixed deciduous woodland, coniferous forests, and coastal grasslands. Found under rocks near streams, damp logs, other objects, and in talus. Lays eggs in moist cavities below the ground. | Suitable habitat present. Closest CNDDDB occurrence is from La Honda Road (Highway 84), about 5 road miles south of intersection with Skyline Blvd., just north of La Honda. This occurrence is approximately 0.2 mile from Site B2/B3, 0.4 mile from Site D, and 1.2 mile from Site E3. |
| Foothill yellow-legged frog (Central Coast Population) <i>Rana boylei</i> | -/CE | Partly shaded streams with rocky or cobbly substrate that flow at least to May. | Suitable aquatic habitat present in La Honda Creek at the Site D bridge. Could disperse through or adjacent to the sites, especially within the stream channels when water is present. Closest presumed extant CNDDDB occurrence is a 1929 record in La Honda Creek, approximately 0.1 mile from Site B2/B3. |

Table A: Special-Status Species Evaluated for the Project

| Species | Status (Federal/ State) | Habitat | Potential for Occurrence ^a |
|--|-------------------------|--|---|
| California red-legged frog <i>Rana draytonii</i> | FT/CSC | Found in lowlands and foothills in or near permanent ponds and streams with dense, shrubby, or emergent riparian vegetation. | Suitable upland and dispersal habitat present at the sites, while suitable aquatic habitat present in La Honda Creek at the Site D bridge and near Sites B2/B3. Species observed approximately 0.05 mile from Site B2/B3, 0.6 mile from Site D, and 0.7 mile from Site E3 (District 2021a). Breeding observed in seasonal pond less than 1,000 feet east of Sites B2 and B3 (J. Anderson, personal communication, September 15, 2016, as cited in AECOM 2016). Closest CNDDDB occurrences are a 2015 record from between Bogess and Harrington Creeks in the Preserve and along La Honda Road near Site E3. Critical Habitat is designated within all four sites. |
| Reptiles | | | |
| Western pond turtle <i>Emys marmorata</i> | -/CSC | 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. | Could migrate through the sites, but not likely to remain at the sites for prolonged periods due to the lack of aquatic habitat. Species observed approximately 0.2 mile of Sites B2/B3, 1.2 miles from Site D, and 2.1 miles from Site E3 (District 2021a). Closest CNDDDB occurrence is approximately 1.5 miles northwest of the Sites B2/B3 and D in ponds within the Preserve. Sites B2/B3 are more than 250 feet away from the occupied ponds to the northwest (District 2018) and therefore, occur outside of potential nesting habitat. |
| San Francisco garter snake <i>Thamnophis sirtalis tetrataenia</i> | FE/CE, CFP | Occurs only in the vicinity of ponds and reservoirs in San Mateo County. | Suitable habitat present in vicinity and species could disperse through the sites. The sites lack preferred aquatic emergent vegetation and associated upland habitat, but species may disperse through the sites (Ascent 2012). Although species observed adjacent to Preserve, species was not detected during 3 years of focused surveys (Ascent 2012). Species observed in the Russian Ridge Open Space Preserve and east of the Preserve across Highway 84 on private lands (District 2021a; CDFW 2022). |

Table A: Special-Status Species Evaluated for the Project

| Species | Status (Federal/ State) | Habitat | Potential for Occurrence ^a |
|---|-------------------------|--|---|
| Birds | | | |
| Marbled murrelet <i>Brachyramphus marmoratus</i> | FT/CE | Nests in old growth and mature coniferous forests near the coast. | Project site is dominated by deciduous trees with few conifer trees; species could occur but is unlikely to nest at the site. Not observed during focused surveys conducted at several areas of the Preserve from 2018 to 2021 (McAllister 2019; Conservation Metrics 2021 and 2022). Species detected approximately 0.6 mile from Sites B2/B3, 2.1 miles from Site D, and 2.9 miles from Site E3. Closest CNDDDB occurrence is approximately 2.2 miles from Site B2/B3, south of La Honda. Critical Habitat (Unit CA-14) is designated approximately 0.8 mile south of Sites B2/B3, 2.2 miles south of Site D, and 3.1 miles south of Site E3. |
| Long-eared owl <i>Asio otus</i> | -/CSC | Woodlands and forests that are open or adjacent to grasslands, meadows, or shrublands. | Suitable nesting habitat present. Species observed in the Preserve during the breeding season in 2019 (McAllister 2019). Closest CNDDDB occurrence is a 1987 record approximately 4.8 miles from the sites in the Montebello Open Space Preserve. |
| Burrowing owl <i>Athene cunicularia</i> | -/CSC | Nests in burrows in grasslands and woodlands; often associated with ground squirrels. Will also nest in artificial structures (culverts, concrete debris piles, etc.). | Suitable nesting and foraging habitat present in grasslands. Closest CNDDDB occurrence is in the Preserve, approximately 1.1 mile from Site D, 1.2 mile from Sites B2/B3, and 1.7 miles from Site E3. Species observed in the Preserve (District 2021a, eBird 2022), including observations from February 2018, approximately 0.9 mile from Sites B2/B3, 0.6 mile from Site D, and 1.3 miles from Site E3. |
| White-tailed kite <i>Elanus leucurus</i> | -/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 and suitable foraging habitat present in the grasslands. Species observed approximately 1.3 to 1.7 miles from the four sites (District 2021a). Species observed in the Preserve during the breeding season (eBird 2022; McAllister 2019). No CNDDDB occurrences recorded within 5 miles of the project site. |

Table A: Special-Status Species Evaluated for the Project

| Species | Status (Federal/ State) | Habitat | Potential for Occurrence ^a |
|---|-------------------------|--|---|
| Northern harrier <i>Circus hudsonius</i> | –/CSC | Nests and forages in meadows, grasslands, open rangeland, and fresh or saltwater marshes. | Suitable nesting and foraging habitat present in grasslands. Species observed in the Preserve during the breeding season (eBird 2022). No CNDDDB occurrences recorded within 5 miles of the project site. |
| Golden eagle <i>Aquila chrysaetos</i> | –/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. | Suitable nesting and foraging habitat present. Species observed in the Preserve during the breeding season (eBird 2022). No CNDDDB occurrences recorded within 5 miles of the project site. |
| American peregrine falcon <i>Falco peregrinus anatum</i> | Delisted/ Delisted, CFP | Forages in open country, mountains, and sea coasts. Nests on high cliffs, bridges, and buildings. | No suitable nesting habitat present; site provides suitable foraging habitat. Species observed in the Preserve during the breeding season (eBird 2022) and in the non-breeding season within approximately 2 miles from the sites (District 2021a). |
| Loggerhead shrike <i>Lanius ludovicianus</i> | –/CSC | 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. | Suitable nesting and foraging habitat nest trees are present. Species observed approximately 0.6 mile from Site D, 0.8 mile from Sites B2/B3, and 1.4 miles from Site E3 (District 2021a). Species observed in the Preserve in January 2021 (eBird 2022). No CNDDDB occurrences recorded within 5 miles of the project site. |
| Olive-sided flycatcher <i>Contopus cooperi</i> | –/CSC | Coniferous forests with open canopies. | Suitable nesting and foraging habitat present in coniferous trees at or near the sites. Species observed in the Preserve during the breeding season in 2022 (eBird 2022). Species observed approximately 1.1 miles from Sites B2/B3, 1 mile from Site D, and 1.6 miles from Site E3. No CNDDDB occurrences recorded within 5 miles of the project site. |
| Purple martin <i>Progne subis</i> | –/CSC | Woodlands; nests in tree snags and abandoned woodpecker cavities and man-made structures. | Unlikely to nest in Preserve (Ascent 2012). Species is rare in San Mateo County (Sequoia 2001). |
| Vaux’s swift <i>Chaetura vauxi</i> | –/CSC | Grasslands and agricultural fields; nests in dense vegetation in large hollow trees near open water; forages in most habitats but prefers rivers and lakes. | Could forage at the site, but not likely to breed on the site since known breeding records in the region are in residential chimneys (Bousman 2007 as cited in Ascent 2012). Species observed foraging in the Preserve during the breeding season (eBird 2022). |

Table A: Special-Status Species Evaluated for the Project

| Species | Status (Federal/State) | Habitat | Potential for Occurrence ^a |
|---|------------------------|---|--|
| Grasshopper sparrow <i>Ammodramus savannarum</i> | –/CSC | Occurs in grasslands with coyote brush and other shrubs. | Suitable breeding and foraging habitat present in the grasslands. Species observed displaying nesting behavior in grasslands north of Site B3 in the Preserve (LSA pers. obs.). Species observed in the Preserve during the breeding season in 2021 and 2022 (District 2021a, eBird 2022). Species observed within 0.04 mile of Sites B2/B3, 0.4 mile of Site D, and 0.9 mile of Site E3. |
| Yellow-breasted chat <i>Icteria virens</i> | –/CSC | Nests in extensive willow riparian woodlands with dense understory. | No suitable breeding habitat present. Species is rare in San Mateo County (Sequoia 2001). |
| Yellow warbler <i>Dendroica petechia</i> | –/CSC | Nests in extensive willow riparian woodlands. | May forage in the woodlands during migration, but no suitable breeding habitat present. Species observed in the Preserve in May 2020 (eBird 2022). |
| Tricolored blackbird <i>Agelaius tricolor</i> | –/CT, CSC | Breeds in large colonies near freshwater, preferably emergent wetland such as cattails and tules but also in thickets of willow and other shrubs. Requires nearby foraging areas with large numbers of insects. | No suitable breeding habitat present, but suitable foraging habitat present within the grasslands. Species observed in the Preserve (eBird 2022). No CNDDDB occurrences recorded within 5 miles of the project site. |
| Mammals | | | |
| Townsend’s western big-eared bat <i>Corynorhinus townsendii townsendii</i> | –/CSC | Found in wooded areas with caves or old buildings for roost sites. | Suitable foraging habitat present. Observed using the Red Barn and White Barn as a day roost; detected in the redwood riparian habitat near the Red Barn, in area surrounding the White Barn, and near the former Driscoll Ranch Folger Lodge; guano deposits indicated occasional night roost in two buildings within the former Driscoll Ranch, the Wool House Trailer and Lower Sears Ranch Storage Building (Heady and Frick 2000, 2001, 2007 as cited in Ascent 2012). Observed in the GZR-7 structure/shed and Red Barn within the Preserve (H.T. Harvey 2017a, 2017b, and 2017c). Closest CNDDDB occurrences are at the Red Barn near Site E3 and a record from 2007 of a night roost near Sites B2/B3. |

Table A: Special-Status Species Evaluated for the Project

| Species | Status (Federal/ State) | Habitat | Potential for Occurrence ^a |
|---|-------------------------|---|--|
| Pallid bat <i>Antrozous pallidus</i> | –/CSC | Occupies a wide variety of habitats at low elevations. Most commonly found in open, dry habitats with rocky areas for roosting. | Suitable roosting, hibernating, and foraging habitat may be present. Maternity roost observed in the Red Barn in the Preserve and species detected in the redwood riparian habitat near the Red Barn, in area surrounding the White Barn, and near the former Driscoll Ranch Folger Lodge using acoustical monitoring (H.T. Harvey 2017c; Heady and Frick 2000, 2001 as cited in Ascent 2012). Closest CNDDDB occurrence is in Woodside, approximately 4.5 miles from Site E3. |
| Western red bat <i>Lasiurus blossevillii</i> | –/CSC | Roosts primarily in trees, 2-40 feet above ground, from sea level up through mixed conifer forests. Prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging. | Suitable roosting habitat may be present in trees and foraging habitat present. Does not breed in the Preserve, but often roosts in riparian trees during migration. Detected foraging in the vicinity of the Red Barn in the Preserve (H.T. Harvey 2017c) and detected in low numbers during bat surveys on Driscoll Ranch within the Preserve (Heady and Frick 2007 as cited in Ascent 2012). No CNDDDB occurrences recorded within 5 miles of the project site. |
| San Francisco dusky-footed woodrat <i>Neotoma fuscipes annectens</i> | –/CSC | Primarily along riparian areas within chaparral and woodlands. Feeds mainly on woody plants but also eats acorns, grasses, and fungi. Builds conspicuous stick houses in trees and on the ground. | Suitable habitat and species present. SFDWV houses observed within the North Coniferous Forest on Site D during LSA’s December 2021 survey and in the North Coniferous Forest near Sites B2/B3 (District 2021a). |
| American badger <i>Taxidea taxus</i> | –/CSC | Grassland, scrub, and woodland with loose-textured soils. | Suitable foraging and denning habitat present within the grasslands. Species observed or detected approximately 0.3 mile from Sites B2/B3, 0.4 mile from Site D, and 0.9 mile from Site E3 (District 2021a). Closest CNDDDB occurrence is a 1986 record at Wool Ranch, approximately 0.2 mile from Sites B2/B3 and 0.8 mile from Site D. Closest CNDDDB occurrence to Site E3 is approximately 0.6 mile away. |
| Ringtail <i>Bassariscus astutus</i> | –/CFP | Found in a variety of vegetation types from Oregon to Mexico. During the day they sleep in dens in tree cavities or rock outcroppings. | Suitable habitat is present. May den in cavities in large trees, if present. No cavities in large trees observed during LSA’s reconnaissance survey. |

Table A: Special-Status Species Evaluated for the Project

| Species | Status (Federal/State) | Habitat | Potential for Occurrence ^a |
|---------------------------------------|------------------------|--|--|
| Mountain lion <i>Puma concolor</i> | –/Candidate CT | Various habitats where deer are present, including grassland, woodland, and mountainous terrain. | Suitable habitat is present. Could occur within the project sites. |

Status Codes:

- FE = Federally listed as an endangered species.
- FT = Federally listed as a threatened species.
- FC = Federally listed as a candidate species.
- CE = State-listed as an endangered species.
- CT = State-listed as a threatened species.
- CC = State-listed as a candidate species.
- CFP = State-listed as a fully protected species.
- CSC = State Species of Special Concern.
- List 1A = California Rare Plant Rank (RPR): species presumed extinct.
- List 1B = RPR: plant considered rare, threatened, or endangered in California and elsewhere.
- List 2 = RPR: plant considered rare, threatened, or endangered in California but more common elsewhere.
- List 3 = More information is needed about plant.
- List 4 = Plants of limited distribution, a watch list.
- CRPR: ‘.1’ = Seriously threatened in California; ‘.2’ = Fairly threatened in California; ‘.3’ = Not very threatened in California.
- = No status.
- S1S2 = Rank is somewhere between S2 and S3. S2 = Imperiled in the State because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the State.

^a Nearest records are based on CNDDDB (CDFW 2022) occurrences unless otherwise noted.

Source: Vollmar 2021 and LSA 2022.

3.4.2 Special-Status Wildlife Species

A total of 35 special-status wildlife species were evaluated for the project (Table A), most of which could migrate through, forage, and/or breed at the site due to the presence of suitable habitat and their known presence within the project vicinity. Based on the presence of suitable habitat, the following species are discussed in more detail below.

3.4.2.1 California Red-legged Frog

The CRLF is a California Species of Special Concern and a federally threatened species. The project site and the entire Preserve is within designated Critical Habitat Unit SNM-2 for CRLF. The USFWS has defined the essential habitat elements for CRLF as the following:

1. Aquatic Breeding Habitat = standing bodies of freshwater (with salinities less than 4.5 parts per thousand), including natural and man-made (e.g., stock) ponds, slow-moving streams or pools within streams, and other ephemeral or permanent water bodies that typically become inundated during winter rains and hold water for a minimum of 20 weeks in all but the driest of years;
2. Aquatic Non-Breeding Habitat = freshwater pond and stream habitats that may not hold water long enough for the species to complete its aquatic life cycle but which provide for shelter,

foraging, predator avoidance, and aquatic dispersal of juvenile and adult CRLF. Other wetland habitats considered to meet these criteria include, but are not limited to: plunge pools within intermittent creeks, seeps, quiet backwaters within streams during high water flows, and springs of sufficient flow to provide mesic surface conditions during dry periods;

3. Upland Habitat = upland areas adjacent to or surrounding breeding and non-breeding aquatic and riparian habitat up to a distance of 1 mile (1.6 km) in most cases (i.e., depending on surrounding landscape and dispersal barriers) including various vegetation types such as grassland, woodland, forest, wetland, or riparian areas that provide shelter, forage, and predator avoidance for the California red-legged frog; and
4. Dispersal Habitat = accessible upland or riparian habitat within and between occupied or previously occupied sites that are located within 1 mile of each other, and that support movement between such sites.

Ideal CRLF breeding ponds have some emergent vegetation to provide cover for adults and tadpoles. Too much emergent vegetation, however, shades the water, preventing it from heating up to optimum temperatures for tadpole development. Ideal ponds have deeper areas (5 or more feet deep) where cattails cannot become established that also provide an area where adults can escape from predators. Shallower areas where the water gets warmer are also required for the tadpoles to develop.

Although the sites occur outside of riparian or aquatic habitat, with the exception of the Site D bridge location, all four of the sites provide suitable upland and dispersal habitat for CRLF.

3.4.2.2 Foothill Yellow-Legged Frog

Suitable habitat for the foothill yellow-legged frog, whose Central Coast population has been designated as State endangered, may be present in the streams within the Preserve. The closest CNDDDB occurrence is a 1929 possibly extirpated record of a specimen collected in La Honda Creek, approximately 0.1 mile from Sites B2/B3 (CDFW 2022). Other CNDDDB occurrences within 2 miles of the site include a 1946 record and a 1951 record from San Gregorio Creek, approximately 0.6 and 1.7 miles from the Site B2/B3 (CDFW 2022). The closest CNDDDB occurrences to Site D and E3 are over 2 miles away. This species, if present in the vicinity, could disperse through the four sites.

3.4.2.3 California Giant Salamander and Santa Cruz Black Salamander

California giant salamander and Santa Cruz black salamander, both California Species of Special Concern, are known to occur near the project site within La Honda (CDFW 2022) and could occur within the woodland habitat in Site D and in the riparian habitat near Site E3.

3.4.2.4 Western Pond Turtle

Western pond turtles are a California Species of Special Concern that are known to occur within the Preserve (CDFW 2022; Ascent 2012). Western pond turtles could occur in the streams and ponds near the project sites. This species is known to occur in the two ponds approximately 0.2 mile northwest of Site B2 (District 2021a). This species typically only leaves aquatic habitat to overwinter

and to nest, and may overwinter terrestrially, where they burrow in friable soils and leaf litter, or they may remain in permanent aquatic features, such as the adjacent ponds, where they seek refuge in undercut banks and under logs and rocks (Thomson et al. 2016 as cited in AECOM 2016). Soils in Sites B2 and B3 are compacted due to heavy cattle use, which could prevent western pond turtles from excavating nests or burrowing during overwintering (AECOM 2016). Sites B2, B3, D, and E are located more than 1,640 feet from suitable aquatic habitat at the two ponds west of Site B2, which is the maximum distance females travel to nest (Thomson et al. 2016 as cited in AECOM 2016). Western pond turtles could occur in La Honda Creek near the bridge at Site D, though the closed canopy forest at this location provides poor quality basking sites. Although no suitable aquatic habitat is present at the sites, with the exception of the bridge at Site D, this species could disperse through the sites.

3.4.2.5 San Francisco Garter Snake

The San Francisco garter snake is federally and State-listed as an endangered species and is a CDFW fully protected species. The preferred habitats are densely vegetated ponds and wetlands that support CRLF and Pacific treefrog near open hillsides with access to sun and rodent burrows for cover. Suitable habitat for San Francisco garter snake is present in the Preserve, especially in and around the ponds that support CRLF, which is prey for this snake (Ascent 2012). This species is known to occur near the sites with a CNDDDB documented occurrence less than a mile to the east of the Preserve (CDFW 2012 as cited in Ascent 2012). Focused surveys of the Preserve and in areas of high habitat suitability failed to detect this species (Seymour 2006; Vollmar 2009; The Wildlife Project 2010; District 2010 and 2011 as cited in Ascent 2012). Although this preferred habitat is not present at the sites, suitable habitat is present in the vicinity and therefore, this snake could disperse through the sites.

3.4.2.6 San Francisco Dusky-Footed Woodrat

SFDFW houses were observed within the Cismontane Woodland and North Coast Coniferous Forest/Redwood Forest adjacent to the existing access road at Site D. The SFDFW is a California Species of Special Concern that builds houses out of sticks on the ground, in trees, and in large shrubs. The houses are often located in areas with large amounts of trees and shrubs, often in riparian areas. SFDFW are nocturnal and are rarely seen by people. The District SFDFW protocol would be implemented to minimize impacts to SFDFW and to minimize future trapping of SFDFW individuals and relocation of houses.

3.4.2.7 Roosting Bats

Special-status bats, including the pallid bat and Townsend's big-eared bat (both California Species of Special Concern), have been observed roosting in the Red Barn near Site E3 and this barn is known to support a maternity roost for pallid bats (H.T. Harvey 2017a, 2017b, and 2017c; Central Coast Bat Research Group 2000 and 2002). Other bat species observed roosting in the barn include Mexican free-tailed bat (*Tadarida brasiliensis*) and fringed myotis (*Myotis thysanodes*). Several additional bat species were detected along La Honda Creek near the barn in June 2000, including the special-status western red bat (California Species of Special Concern), and other bats, such as Yuma myotis (*Myotis yumanensis*), long-eared myotis (*M. evotis*), California myotis (*M. californicus*), and big brown bat (*Eptesicus fuscus*) (H.T. Harvey 2017c, Central Coast Bat Research Group 2001).

No other bat roosts or sign of bats were observed during the surveys, but suitable roosting habitat may be present in the trees at or near the four sites and under the existing bridge at Site D.

3.4.2.8 American Badger

The American badger could forage and den within the grasslands at Sites B2, B3, and E. American badgers occur in grasslands where abundant rodent prey, such as Botta's pocket gopher, are present. The four sites are situated in an area mapped in the American Badger Habitat Suitability Assessment (District 2019) as having highly suitable habitat for American badgers movement and American badgers have also been observed near the four sites (District 2019, 2021).

3.4.2.9 Burrowing Owl

The burrowing owl is a California Species of Special Concern that uses a variety of developed, natural, uncultivated, and agricultural habitats, any of which can support owls depending on the availability of burrows for cover, perching, nesting, and prey availability. Burrowing owls have also been known to use storm drains, areas under roadways, and other man-made features for nesting and cover. While the majority of the grasslands at the four sites supports tall vegetation that is likely unsuitable for the burrowing owl, California ground squirrel (*Otospermophilus beecheyi*) burrows were observed within the grasslands. Burrowing owls could breed in these burrows or occupy them during the winter and forage within the grasslands. No burrowing owls or burrowing owl sign were observed during LSA's reconnaissance surveys.

3.4.2.10 Other Special-Status Bird Species

Other special-status birds that could nest and/or forage within or adjacent to the sites include:

- northern harrier (*Circus hudsonius*) – Sites E3, B2, and B3;
- white-tailed kite (*Elanus leucurus*);
- American peregrine falcon (*Falco peregrinus anatum*);
- golden eagle (*Aquila chrysaetos*);
- olive-sided flycatcher (*Contopus cooperi*);
- loggerhead shrike (*Lanius ludovicianus*);
- yellow warbler (*Dendroica petechia*);
- grasshopper sparrow (*Ammodramus savannarum*) – Sites E3, B2, and B3;
- and tricolored blackbird (*Agelaius tricolor*).

In addition, potentially suitable nesting habitat is present in the northern portion of the Preserve for the marbled murrelet, a State-listed and federally listed seabird, but no marbled murrelets were observed during focused surveys conducted at the Preserve from 2018 to 2021 (McAllister 2019;

Conservation Metrics 2021 and 2022). The sites do not contain federally designated Critical Habitat for marbled murrelet; Critical Habitat Unity CA-14 is approximately 0.8 mile south of Site B2/B3, 2.2 miles south of Site D, and 3.1 miles south of Site E3.

3.5 SENSITIVE NATURAL COMMUNITIES

The CDFW tracks the occurrences of natural plant communities that are of limited distribution statewide, or within a county or region where they are often vulnerable to the effects of development projects. 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. Whether a natural plant community is imperiled or not can be determined by checking MCV or CDFW’s List of Vegetation Alliances and Associations (CDFW 2010). Some imperiled vegetation associations can be difficult to distinguish from common plant communities without a quantitative vegetation description. For example, patches of native grassland comprising at least 15 percent relative cover in a grassland area are considered a sensitive natural community by CDFW.

The Redwood Forest at Site D is ranked as S3.2 and G3 and is therefore considered a sensitive natural community at both the State level and the global level. Construction of the staging area and bridge at Site D would avoid removing redwood trees and grading within the root-zones of the trees where possible. Disturbance to understory vegetation within the Redwood Forest would be minimal.

This page intentionally left blank

4.0 ANALYSIS OF IMPACTS AND RECOMMENDED MEASURES TO AVOID, MINIMIZE, AND MITIGATE POTENTIAL IMPACTS

The potential for protected resources to be impacted by construction and operation of the proposed staging area(s) is a function of the likelihood the species is present when the staging area(s) is constructed, as well as the type and duration of construction activities. Another factor is the sensitivity of the species or resource to disturbance. For example, SDFW may not react at all to people working near its house during the day, whereas a raptor may abandon its nest if people are working 100 feet away.

4.1 JURISDICTIONAL FEATURES

Potentially jurisdictional features at the sites consist of seasonal wetlands at or near Site B2; an incised non-wetland channel, non-wetland drainage swale, and Weeks Creek at or near Site E3; as well as a wetland channel and La Honda Creek near Site D (Vollmar 2021, 2022a, and 2022b). These features are subject to regulation under Section 404 of the federal Clean Water Act and California Porter-Cologne Water Quality Control Act (Vollmar 2022a and 2022b). Potential jurisdictional status by the relevant regulatory agencies, including the USACE, RWQCB, and CDFW are listed in Table B.

TABLE B. Potential Jurisdictional Habitats Delineated at Project Sites

| Habitat Type | Project Site | Potential Jurisdictional Status | Acreage |
|---|--------------|---------------------------------|---------|
| Seep Wetland | B3 | USACE, CDFW, RWQCB | 0.039 |
| Incised Non-Wetland Channel | E3 | USACE, CDFW, RWQCB | 0.013 |
| Non-Wetland Drainage Swale | E3 | RWQCB | 0.003 |
| Non-Wetland Drainage Swale | E3 | RWQCB | 0.012 |
| Underground Drainage Pipe | E3 | Not Applicable | 0.001 |
| Underground Drainage Pipe | E3 | Not Applicable | 0.011 |
| Riparian Habitat along Weeks Creek | E3 | CDFW | 0.695 |
| Wetland Channel | D | USACE, CDFW, RWQCB | 0.010 |
| La Honda Creek Stream Channel | D Bridge | USACE, CDFW, RWQCB | 0.044 |
| La Honda Creek Bank above OHWM | D Bridge | CDFW, RWQCB | 0.009 |
| Riparian Habitat along La Honda Creek near Bridge | D Bridge | CDFW | 0.048 |

(Source: Vollmar 2022a and 2022b)

4.2 AVOIDANCE AND MITIGATION MEASURES

4.2.1 Waters of United States/State

The District shall implement Mitigation Measure 6 of the IS/MND (Ascent 2012), where applicable, to minimize impacts to wetlands and other waters of the U.S./State:

- Where wetlands or other Waters could be affected by trail improvements, bank stabilization, or other activities, a preliminary wetland delineation shall be submitted to USACE for verification. The wetlands may also be subject to CDFW regulation under Section 1602 of the Fish and Game Code. No grading, fill, or other ground disturbing activities shall occur until all required permits, regulatory approvals, and permit conditions for effects on wetland habitats are secured.
- If the wetlands are determined to be subject to USACE jurisdiction, projects such as small bank stabilization projects, restoration activities, or trail or road crossings may qualify for a Nationwide Permit if certain criteria are met. For those wetlands that cannot be avoided, The District shall commit to replace, restore, or enhance on a “no net loss” basis (in accordance with USACE, RWQCB, and CDFW) the acreage of all wetlands and other waters of the U.S./State that would be removed, lost, and/or degraded with project implementation. Wetland habitat shall be restored, enhanced, and/or replaced at an acreage and location and by methods agreeable to USACE, RWQCB, and CDFW, as appropriate, depending on agency jurisdiction, and as determined during the permitting processes.

4.2.2 Riparian and Other Sensitive Natural Communities

Sensitive natural communities that were mapped at the sites include riparian habitat and the Redwood Forest along La Honda Creek at the bridge at Site D. Creeping rye grass turfs were also observed near Site B2, but this sensitive plant community would be avoided. These plant communities are considered sensitive by CDFW and under CEQA.

Since the IS/MND for the Preserve (Ascent 2012) does not include a mitigation measure for riparian and sensitive natural communities, the following avoidance measure was adapted from the District’s Certified Program Environmental Impact Report for the Wildland Fire Resiliency Program (District 2021b). The following mitigation measure would reduce potential impacts to sensitive plant communities:

- Before construction activities occur, a District-approved botanist should: (1) assess the site-specific threats to each sensitive natural community that might be impacted; and (2) recommend spatial buffers or other management actions that should reduce potential impacts on the sensitive natural community. The botanist’s recommendations should be site-specific, and should consider the specific activity being proposed, the resiliency of the community, and its susceptibility to potentially significant impacts. The applicant should implement the botanist’s recommendations, to the extent feasible.
- To the extent feasible, any future proposed/conceptual recreational improvements should be configured to minimize habitat fragmentation, especially in areas with unique structural components.
- Vegetative debris (e.g., slash, chips) should not be placed on top of vegetation in sensitive communities, unless determined by a qualified biologist or biological monitor working under a qualified biologist to not have negatively affected the community.
- Personnel should not walk through sensitive plant communities susceptible to trampling.

- Prior to approving an off-road travel route, the District should survey the route to ensure avoidance of sensitive biological resources, including special-status species and sensitive natural communities (or habitats).
- If it is not feasible to locate staging areas in previously disturbed areas, they should be located outside of sensitive communities (or habitats) that could suffer long-term impacts due to staging activities.
- Grazing should be carefully managed, should it occur in or near a sensitive natural community, to limit the grazing duration and to ensure that erosion and sedimentation of waterways and riparian areas does not occur.
- District should provide compensatory mitigation for impacts to sensitive plant communities. The baseline ratio for impacts to the communities should be between 3:1 and 2:1. Factors that may dictate the need for a higher ratio are:
 - Mitigation Strategy: The baseline ratio applies to mitigation projects that entail creation or restoration of the impacted community. One half point should be added to any mitigation project that involves only enhancement of an existing community as recommended by a MROSD-approved biologist (e.g., seed within native species, removal of human-made infrastructure such as fences or hardscape, treatment of invasive species).
 - Temporal Loss: The baseline ratio assumes no temporal loss of the community. Therefore, the baseline ratio should only apply to mitigation projects that are completed within a year after impacts occur. If the mitigation project is not initiated within a year after impacts occur, the ratio should be increased by 0.2 for each year of lag time between the time of impacts and the start of mitigation.
 - Uncertainty: There is inherent uncertainty in whether a mitigation project will fully replace the functions that are lost from the impact site. As a result, the mitigation ratio should be commensurate with the risk that a mitigation project will not achieve the designated goal, which is generally to replace the functions that are lost from the impact site. The baseline ratios account for the uncertainty inherent in all mitigation projects because they should achieve “no net loss” of sensitive community functions even if some (relatively small) portions of the mitigation site fail to achieve the desired conditions. However, the baseline ratios assume a relatively high probability of success. Due to District’s expertise and experience with mitigation projects, District assumes the mitigation project should succeed if: (a) District has successfully completed comparable mitigation projects, or (b) scientific literature supports the inference that the mitigation project is likely to be successful (e.g., due to its simplicity). If the proposed mitigation project does not satisfy either criterion, one point should be added to the baseline ratio.
 - Distance: Compensatory mitigation ratios are generally dependent on the distance of the mitigation site from the impact site. To the extent feasible, District should mitigate on District property, and within the same watershed as the impact site.

- Kind: The baseline ratios assume “in-kind” mitigation (i.e., the mitigation site replaces the same sensitive natural community or wetland type as the one impacted). In some instances, there may be ecological benefits to “out-of-kind” mitigation. District should document the scientific justification for all proposed out-of-kind mitigation projects. No out-of-kind mitigation should be allowed for impacts on wetland or riparian communities unless authorized by the regulatory agency(ies) with jurisdiction over the impacted resource.
- Other Impacts: A mitigation ratio greater than 1:1 may be needed to account for a project’s indirect impacts, and for its contribution to cumulative impacts. The baseline ratios account for these impacts.

To determine the appropriate mitigation ratio for a given project, the District should apply the factors described above, in the order listed.

District should maintain a ledger that documents:

1. Impacts on sensitive communities, including type of community impacted, acreage impacted, year(s) impacts occurred, and activity that caused the impact.
2. The mitigation ratio applied to each activity, and the rationale for that ratio. The rationale should include a formula that incorporates the variables outlined above.
3. Any additional mitigation requirements imposed by the regulatory agencies (e.g., in a Streambed Alteration Agreement from CDFW) beyond what is already described above.
4. Mitigation projects, including the mitigation strategy, type, location, acreage, and date completed.

The ledger should be used to document compliance with the compensatory mitigation requirements. A copy of the ledger should be made available to the regulatory agencies.

Any plants or seeds needed for a mitigation project should be derived from sources determined appropriate by the District-approved botanist. Depending on the species, plants or seeds should be sourced from locally appropriate genetic material and comply with best management measures intended to exclude *Phytophthora* and other plant pathogens to the extent possible.

Performance Standards. Projects designed to mitigate significant impacts to sensitive natural communities should be considered successful once they achieve the membership rules described in the most current version of the MCV (Sawyer et al. 2009). A District-approved botanist should implement the Relevé and Rapid Assessment vegetation sampling techniques to monitor sensitive natural community development at mitigation sites until the site achieves the membership rules (e.g., percent relative cover) described in the most current version of the MCV, after which the site should be monitored in accordance with MROSD’s monitoring program.

If riparian habitat cannot be avoided, construction activities could result in the removal of or impacts to riparian vegetation and/or riparian canopy under the jurisdiction of the CDFW and

RWQCB. Impacts to this community are considered significant under CEQA and require mitigation. Impacts to riparian habitat would also require a CDFW Section 1602 Lake or Streambed Alteration Agreement and possibly a RWQCB Section 401 Water Quality Certification. If riparian vegetation is impacted during construction, consideration of the following mitigation measure would reduce potential impacts to riparian habitat.

Although the proposed project would be designed to avoid impacts to riparian habitat, if riparian trees or shrubs are impacted during project construction, impacted riparian trees should be replaced at a minimum 3:1 ratio, while impacted shrubs and understory plants should be replaced at a minimum 1:1 ratio. The riparian plants should be replaced in-kind from phytophthora-free container stock as appropriate.

4.2.3 Special-Status Plants

The District should implement Mitigation Measure BIO-1 of the IS/MND (Ascent 2012), where applicable, to minimize impacts to special-status plants:

- If special-status plant populations are present in the project footprint, the District shall determine if the population can be avoided by adjusting the project design. The District will locate new trails, new roads, or other new facilities to avoid impacts to the extent feasible.
- If the impact to special-status plants cannot be avoided, the District shall consult with CDFW and USFWS, as appropriate depending on species status, to determine the appropriate measures to ensure no net loss of occupied habitat or individuals. These measures may include preserving and enhancing existing populations, creation of off-site populations on project mitigation sites through seed collection or transplantation, and/or restoring or creating suitable habitat in sufficient quantities to achieve the no-net-loss standard.

4.2.4 Special-Status Wildlife

Wildlife could be directly impacted if they were killed by construction of the sites or recreational use at the sites. Wildlife could be also disturbed by noise from construction-related equipment and personnel. Because the sites will not be constructed or open for recreation at night, operation of the sites will not impact nocturnal wildlife. Food-related trash left on the construction site could attract additional predators, such as coyotes, ravens, or feral cats, leading to increased predation pressure on native wildlife species. Spills of oil or fuel from construction equipment and vehicles could degrade soil or water. Pet dogs running off leash could kill or disturb ground-nesting birds and other wildlife.

Based on the field surveys and review of CNDDDB (CDFW 2022) and District (2021a) records, LSA recommends the following measures be implemented to ensure impacts to biological resources are avoided:

4.2.4.1 Steelhead and Coho Salmon

Suitable habitat for steelhead and coho salmon is present in La Honda Creek near the bridge at Site D. The District should implement Mitigation Measure BIO-5 of the IS/MND (Ascent 2012), where applicable, to protect steelhead during construction activities:

- The District or its contractor will avoid impacts to coho salmon and steelhead by avoiding stream habitat by at least 200-feet to the extent feasible.
- If project activities are to occur in stream habitat, a qualified District staff or contractor shall determine if suitable habitat for anadromous fish would be affected by the activity, including downstream effects. Examples could include activities associated with bank stabilization or installation of stream crossing footings (etc.) within the OHWM. If the habitat for anadromous fish would not be affected, then no further mitigation shall be required.
- If suitable habitat for anadromous fish would be affected by the project activity, the District will consult with the National Marine Fisheries Service (NMFS) to comply with the requirements of the ESA and CDFW to comply with the requirements of the CESA. Because potential impacts to stream habitat for these anadromous fish may also require a Section 404 permit from the USACE, consultation would likely occur under Section 7 of the ESA. The proposed projects may qualify for ESA compliance by using the programmatic Biological Opinion for Anadromous Fish issued to USACE for specific fisheries restoration projects (NMFS 2006).
- The District shall ensure the no net loss of coho salmon and steelhead habitat occurs. Aquatic habitat that is disturbed during construction shall be restored to its pre-project condition. If permanent loss of habitat occurs, habitat restoration or enhancement shall occur elsewhere on District land as compensatory mitigation.
- Project sites shall be monitored by a qualified District staff or contractor during construction to prevent adverse and unforeseen effects to listed salmonids. The qualified staff or contractor shall monitor work activities and instream habitat a minimum of three times per week during construction for the purpose of identifying and reconciling any condition that could adversely affect salmonids or their habitat. The District staff or contractor shall have the authority to cease construction activities in order to resolve any unanticipated adverse impact resulting from construction.
- A monitoring report shall be provided to NMFS and CDFW following the completion of construction within 120 calendar days following the completion of the construction phase of each restoration project. The report shall include the number and approximate size (millimeters) of listed salmonids captured and removed; any effect of the proposed action on listed salmonids; and photographs taken before, during, and after the activity from photo reference points.
- A spill prevention plan shall be in place prior to construction and shall be reviewed and approved by NMFS and CDFW prior to construction.

- The District shall review and incorporate the minimization and avoidance measures, as proposed by USACE, NMFS, and/or CDFW, prior to final project design submittal and construction. Construction crews and the qualified staff or contractor shall have a copy of these measures on site during project activities.
- Restoration projects shall not result in the introduction of anadromous salmonids into nonnative habitats. Fish passage enhancement actions, that facilitate anadromous salmonid migration into stream reaches without any prior historical access, are not permitted.
- Sediment minimization measures shall apply to large woody debris placement actions. Root wads placed instream to enhance salmonid habitat shall be largely free of fine sediment prior to placement.
- NMFS and/or CDFW may place additional site-specific conditions on any restoration project in order to protect listed salmonids or their critical habitat from otherwise unforeseen adverse circumstances. USACE are expected to incorporate these additional site-specific conditions into their permits.

4.2.4.2 California Red-Legged Frog

The project will not impact any known or potential breeding habitat for CRLF. CRLF generally stay close to water, with some individuals primarily migrating at night. Because future construction activities will occur in upland areas and outside of suitable aquatic habitat during daylight hours as described in Mitigation Measure 2a of the IS/MND (Ascent 2012), no impact on migrating individuals is expected.

The District shall implement Mitigation Measure 2a of the IS/MND (Ascent 2012), where applicable, to protect CRLF during construction activities:

- At least 15 days prior to the onset of activities, the applicant or project proponent shall submit the name(s) and credentials of biologists who would conduct activities specified in the following measures. No project activities shall begin until proponents have received written approval from USFWS that the biologist(s) is qualified to conduct the work.
- A USFWS-approved biologist shall survey the work site 2 weeks before the onset of activities. If CRLF are found, the approved biologist shall contact USFWS to determine if moving any of these life-stages is appropriate. In making this determination USFWS shall consider if an appropriate relocation site exists. If USFWS approves moving animals, the approved biologist shall be allowed sufficient time to move CRLF from the work site before work activities begin. Only USFWS-approved biologists shall participate in activities associated with the capture, handling, and monitoring of CRLF.
- Before any construction activities begin on a project, a USFWS-approved biologist shall conduct a training session for all construction personnel. At a minimum, the training session shall include a description of the CRLF and its habitat, the importance of CRLF and its habitat, the general measures that are being implemented to conserve the CRLF as they relate to the project, and

the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions.

- A USFWS-approved biologist shall be present at the work site until such time as all removal of CRLF, instruction of workers, and habitat disturbance have been completed. After this time, the contractor or permittee shall designate a person to monitor on-site compliance with all minimization measures. The USFWS-approved biologist shall ensure that this individual receives training outlined above and in the identification of CRLF. The monitor and the USFWS-approved biologist shall have the authority to halt any action that might result in impacts that exceed the levels anticipated by the USFWS during review of the proposed action. If work is stopped, USFWS shall be notified immediately by the USFWS-approved biologist or on-site biological monitor.
- During project activities, all trash that may attract predators shall be properly contained, removed from the work site and disposed of regularly. Following construction, all trash and construction debris shall be removed from work areas.
- All fueling and maintenance of vehicles and other equipment and staging areas shall occur at least 20 meters from any riparian habitat or water body. The permittee shall ensure contamination of habitat does not occur during such operations. Prior to the onset of work, the permittee will prepare a plan to allow a prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measure to take should a spill occur.
- A USFWS-approved biologist shall ensure that the spread or introduction of invasive exotic plant species shall be avoided to the maximum extent possible. When practicable, invasive exotic plants in the project areas shall be removed.
- Project sites shall be revegetated with an appropriate assemblage of native riparian wetland and upland vegetation suitable for the area. A species list and restoration and monitoring plan shall be included with the project proposal for review and approval by USFWS. Such a plan must include, but not be limited to, location of the restoration, species to be used, restoration techniques, time of year the work will be done, identifiable success criteria for completion, and remedial actions if the success criteria are not achieved.
- Stream contours shall be returned to their original condition at the end of the project activities, unless consultation with USFWS has determined that it is not beneficial to the species or feasible.
- The number of access routes, number and size of staging areas, and the total area of the activity shall be limited to the minimum necessary to achieve the project goal. Routes and boundaries shall be clearly demarcated, and these areas shall be outside of riparian and wetland areas. Where there are impacts in these staging and access routes, restoration shall occur as identified above.

- Work activities shall be completed between May 1 and November 1. Should the proponent or applicant demonstrate a need to conduct activities outside this period, they will obtain USFWS's approval.
- To control erosion during and after project implementation, the applicant shall implement best management practices, as identified by the appropriate Regional Water Quality Control Board.
- If a work site is to be temporarily dewatered by pumping, intakes shall be completely screened with wire mesh not larger than 5 millimeters to prevent CRLF from entering the pump system. Water shall be released or pumped downstream at an appropriate rate to maintain downstream flows during construction. Upon completion of construction activities, any barriers to flow shall be removed in a manner that would allow flow to resume with the least disturbance to the substrate.
- A USFWS-approved biologist shall permanently remove, from the project area, any individuals of exotic species, such as bullfrogs, crayfish, and centrarchid fishes, to the maximum extent possible. The permittee shall have the responsibility to ensure that its activities are in compliance with the California Fish and Game Code.

4.2.4.3 Foothill Yellow-Legged Frog

Suitable habitat for the foothill yellow-legged frog may be present in the creek and stream channels near the project site. Foothill yellow-legged frogs have been recorded approximately 3.7 miles from Sites B2/B3 in Pescadero Creek, between Jones Gulch and Harwood Creek in Pescadero Creek County Park. This frog species was historically known to occur approximately 1.8 miles from Site E3 in Corte Madera Creek, but are considered extirpated from this creek (CDFW 2022). Other CNDDDB occurrences recorded within 5 miles of the sites are extirpated or possibly extirpated historical records from the 1890s, 1920s, 1930s, 1940s, and early 1960s (CDFW 2022). This species, if present, could occur in the creeks and streams within the Preserve and disperse through the project site.

Implementation of the above measures for CRLF would also avoid potential impacts to the foothill yellow-legged frog during construction of the sites. Since this species is not federally listed, CDFW would be contacted regarding impacts to foothill yellow-legged frogs as opposed to the USFWS.

4.2.4.4 California Giant Salamander and Santa Cruz Black Salamander

California giant salamander and Santa Cruz black salamander are known to occur within 1.6 miles and 1.1 miles of the four sites, respectively (CDFW 2022), and could occur along the tributaries and adjacent riparian and woodland habitat.

Implementation of the mitigation measures for CRLF would also avoid potential impacts to the California giant salamander and Santa Cruz black salamander during construction of the staging area. Since these two species are not federally listed and are California Species of Special Concern, CDFW would be contacted regarding impacts to these species as opposed to the USFWS.

4.2.4.5 Western Pond Turtle

Implementation of Mitigation Measure BIO-2b of the IS/MND (Ascent 2012) would avoid potential impacts to the western pond turtle during construction of the sites.

- The District or its contractor shall avoid impacts to western pond turtle by avoiding aquatic and riparian habitat by at least 200 feet to the extent feasible.
- Qualified District staff or a contractor shall conduct a pre-construction survey for western pond turtles no more than 30 days prior to construction in suitable aquatic habitats and upland habitat within the project corridor/footprint, including stream crossings, drainage ditches, and culverts.
- If the species is found near any proposed construction area, impacts on individuals and their habitat shall be avoided to the greatest extent feasible.
- If occupied habitat can be avoided, an exclusion zone shall be established around the habitat, and temporary exclusion fencing shall be installed around a buffer area determined by the qualified District staff or contractor with “Sensitive Habitat Area” signs posted and clearly visible on the outside of the fence.
- If avoidance is not possible and the species is determined to be present in work areas, the qualified District staff or contractor, with approval from CDFW, may capture turtles prior to construction activities and relocate them to nearby, suitable habitat a minimum of 300 feet downstream from the work area. Exclusion fencing should then be installed, if feasible, to prevent turtles from reentering the work area. For the duration of work in these areas, the qualified District staff or contractor should conduct monthly follow-up visits to monitor effectiveness.

4.2.4.6 San Francisco Garter Snake

Implementation of Mitigation Measure BIO-2c of the IS/MND (Ascent 2012) would avoid potential impacts to the San Francisco garter snake during construction of the sites.

- Qualified District staff or a contractor shall conduct a pre-construction survey for San Francisco garter snake no more than 30 days prior to construction in suitable aquatic habitats and adjacent upland habitat within the project footprint. If the species is found near any proposed construction area, work shall cease immediately and the District shall contact USFWS and CDFW within 24 hours to develop appropriate conservation measures to avoid and minimize impacts.

4.2.4.7 Burrowing Owl

Implementation of the following measures would avoid potential impacts to the burrowing owl during construction of the sites:

- Pre-construction surveys shall be conducted for burrowing owls prior to the commencement of construction activities. These surveys shall conform to the survey protocol established by

CDFW's Staff Report on Burrowing Owl Mitigation (Staff Report; CDFG 2012). The following measures are consistent with the provisions of the Migratory Bird Treaty Act, California Fish and Game code, and the Staff Report.

- No more than 14 days prior to any ground disturbing activities (regardless of time of year), a qualified biologist shall conduct a take avoidance survey for burrowing owls. If no owls are found during this first survey, a final survey shall be conducted within 24 hours prior to ground disturbance to confirm that burrowing owls are still absent. If ground disturbing activities are delayed or suspended for more than 14 days after the initial take avoidance survey, the site shall be resurveyed (including the final survey within 24 hours of disturbance). All surveys shall be conducted in accordance with Staff Report guidelines.
- If the surveys identify breeding or wintering burrowing owls on or adjacent to the site, occupied burrows shall not be disturbed and shall be provided with protective buffers. Where avoidance is not feasible, an exclusion plan shall be implemented to encourage burrowing owls to move away from the work area prior to construction. The exclusion plan shall be subject to CDFW approval and monitoring requirements. Compensatory mitigation, including the preservation of suitable burrowing owl habitat at a minimum 1:1 ratio, may also be required by CDFW as part of the approval of an exclusion plan.

4.2.4.8 Marbled Murrelet

Implementation of Mitigation Measure BIO-4b of the IS/MND (Ascent 2012) (where applicable to the project) would minimize potential disturbance to marbled murrelets at potential nesting sites and to marbled murrelets that are traveling to and from coastal foraging areas:

- If construction work is scheduled to occur during the marbled murrelet breeding season (March 24 to September 15) in forested areas of the Preserve, qualified District staff or a contractor shall review the project area and verify that the project activities would not occur within the area identified as potential habitat and buffer zone.
- Within conifer forests on the Preserve, during the marbled murrelet breeding season (March 24 to September 15), noise generating construction activity shall be restricted to 2 hours after sunrise to 2 hours before sunset to minimize disturbance of potential nesting murrelets using forest habitat as a travel corridor between inland nesting and coastal habitat.

4.2.4.9 Nesting Birds

Implementation of Mitigation Measure BIO-4a of the IS/MND (Ascent 2012) would avoid potential impacts to nesting birds during construction of the sites.

- To minimize potential disturbance to nesting birds, project activities, including vegetation removal and building demolition, watershed habitat management, and vegetation and forest management, shall occur during the non-breeding season (September 16 to February 14), unless it is not feasible to do so, in which case the following measures shall also be applied.

- During construction, road improvements, and other activities, removal of trees greater than 6 inches diameter at breast (dbh) height shall be limited to the greatest degree possible.
- If construction activity is scheduled to occur during the nesting season (February 15 to September 15), the District shall utilize qualified District staff or a contractor to conduct pre-construction surveys and to identify active nests on and within 500 feet of the project site that could be affected by project construction. The surveys shall be conducted no less than 14 days and no more than 30 days before the beginning of construction in a particular area. If no nests are found, no further mitigation is required.
- If active nests are found, impacts on nesting raptors and songbirds shall be avoided by establishment of appropriate buffers around the nests. No project activity shall commence within the buffer area until qualified District staff or a contractor confirms that any young have fledged or the nest is no longer active. A 500-foot buffer around raptor nests and 50-foot buffer around songbird nests are generally adequate to protect them from disturbance, but the size of the buffer may be adjusted by qualified District staff or a contractor in consultation with CDFW depending on site-specific conditions. For construction, use of non-power hand-tools may be permitted within the buffer area if the behavior of the nesting birds would not be altered as a result of the construction. Monitoring of the nest by qualified District staff or a contractor during and after construction activities will be required if the activity has the potential to adversely affect the nest.

4.2.4.10 Roosting Bats

The District's *Best Management Practices for Avoiding and Minimizing Impacts to Bat Species* and previous bat survey reports recommend implementation of the following measures:

- In areas of suitable habitat, pre-construction surveys are required for the following special-status bat species: pallid bat, Townsend's big-eared bat, and western red bat.
- Bat surveys should take place during the April 15 through August 31 maternity roost season whenever possible. Surveys may also take place between February 16 and April 14. Findings during spring surveys may indicate that a second summer survey is necessary.
- Bats generally breed April through August; no tree work (over 16 inches dbh) is allowable during this time if surveys determine that special-status bats or maternity roosts are present.
- Bats go into a deep torpor period November 16 through February 15; no tree work (over 16 inches dbh) is allowable during this time if surveys determine that special-status bats or maternity roosts are present.
- If individual non-breeding and non-special-status bats are present, a qualified biologist may be retained to remove the bats and work may proceed year-round.
- If maternity roosting or special-status bat species are present at any time, no work is allowed without first excluding and providing alternate roost site(s) outside of the breeding season.

- Alternate roost site(s) must be determined by District Natural Resources staff or a consulting biologist and submitted to CDFW before installation.
- Whenever possible, alternative roost site(s) shall be provided 6 months to 1 year prior to the removal of maternity roosting habitat to allow bats adequate time to discover the new locations.
- Alternative roost site(s) shall be monitored for occupancy by a qualified biologist within 1 year of installation.
- Contractors, District staff, and others working in areas known to support maternity roost site(s) and/or special-status bat species shall be provided biological awareness training by a qualified biologist prior to the commencement of work.
- Removal of trees greater than 16 inches dbh during the April through August nursery season should be avoided whenever possible.
- If removal of trees greater than 16 inches dbh during the nursery season cannot be avoided, a qualified biologist shall conduct surveys for roosting bats where suitable large trees are to be removed. Surveys will consist of daytime pedestrian surveys to look for visual signs of bats (e.g., guano) and if determined necessary, evening emergence surveys to note the presence or absence of bats. If evidence of roosting bats is found, the number and species of roosting bats will be determined. If no evidence of bat roosts is found, then no further study will be required. Bat detectors and/or infrared detectors may be used to supplement survey efforts, but are not required.
- If roosts of special-status bats are determined to be present and must be removed during the April through August nursery season, a bat exclusion plan shall be prepared and submitted to CDFW. The exclusion plan shall describe the method of exclusion, which may include the use of one-way doors at roost entrances (bats may leave but not re-enter), or sealing roost entrances when the site can be confirmed by a bat expert to contain no bats. The use of sonic bat deterrents may also be allowed when called for by a qualified biologist. No bats shall be excluded until the plan is approved by CDFW and alternative roosting habitat is approved. Exclusion efforts may be restricted during periods of sensitive activity (e.g., during hibernation or while females in maternity colonies are nursing young). The bats shall be excluded from the roosting site before the site is disturbed, closed, or modified in any way. When possible, alternative roosting sites shall be provided 6 months to a year prior to the removal of existing roosts. Once the replacement roosts are constructed and it is confirmed that bats are not present in the original roost site, the structures may be removed or sealed.
- In areas known to support special-status bats and/or maternity roosts, such as at the Red Barn near Site E3, the following measures shall be implemented:
 - Public access and ranch improvements adjacent to the red barn (e.g., construction of the parking lot, trails, retaining walls, cattle corral, etc.) should be conducted outside the maternity season (generally April 15 – September 1). If work is conducted during the

maternity season, low noise-producing activities (e.g., moving construction vehicles, handwork, fence building, pedestrian traffic, etc.) shall stay at least 120 feet from the barn, and high noise-producing activities (e.g., grading, excavation, drilling, trenching, scraping, etc.) shall stay at least 150 feet from the barn. Idling trucks or operating generators shall be 150 feet from the barn to avoid impacts from exhaust fumes. Because adult and sub-adult pallid bats remain in the barn well into September and possibly October, reduced buffers shall be maintained of 60 feet for low noise-producing activities and 75 feet for high-noise producing activities, as noted above, until colony individuals disperse for the winter (from mid-October through the end of November). If these work buffer distances are infeasible due to the need for access or construction adjacent to the barn, then the project team shall consult with the project bat biologists to determine alternate mitigation measures, such as pre-construction surveys or noise level and equipment restrictions. Work can proceed without disturbance buffers between November 30 and February 28.

Mitigation Measure BIO-3 of the IS/MND (Ascent 2012) applies to bat roosts in buildings, but aspects of the measure would also apply to bat roosts in trees, which may be present at or adjacent to the four sites.

- Surveys for roosting bats on the project site shall be conducted by qualified District staff or a contractor. Surveys shall consist of a daytime pedestrian survey looking for evidence of bat use (e.g., guano) and/or an evening emergence survey to note the presence or absence of bats. If no bat roosts are found, then no further study is required. If evidence of bat use is observed, the number and species of bats using the roost shall be determined. Bat detectors may be used to supplement survey efforts, but are not required.
- If bat roosts are present, construction activities shall be done in as concentrated a time period as possible and will be timed to minimize disturbance to bat roosts as recommended by a bat expert. An exclusion buffer shall also be established around the bat roost to avoid disturbance during construction.

4.2.4.11 San Francisco Dusky-Footed Woodrat

The District SFDFW protocol shall be implemented to minimize impacts to SFDFW and to minimize future trapping of individuals and relocation of SFDFW houses.

For portions of the sites that support suitable SFDFW habitat, a qualified biologist shall survey the site for evidence of nesting SFDFW (i.e., large stick nests/houses) prior to construction. Since SFDFW use their nests/houses year-round, surveys for nests/houses may be conducted at any time of the year. If SFDFW or their nests/houses are present, a biological awareness training shall be provided by a qualified biologist prior to project implementation. For any SFDFW and/or nest/house that are found within project boundaries, the measures listed below for natural areas shall be implemented:

- All SFDFW nests/houses will be flagged in the field and delineated on project site maps. In all instances, every effort should be made to avoid impacts to SFDFW nests/houses. Avoidance, even with a small buffer area, is considered preferable to relocation. Avoidance buffers of a minimum of 3-10 feet shall be implemented, flagged where appropriate, and avoided during

project implementation. Smaller buffers allow work to occur in close proximity without displacing and relocating individuals each time these activities occur, which may be on an annual or recurring basis (defensible space around structures, road and trail side brushing, invasive plant removal, etc.). As evaluated by the project biologist, fencing shall be installed around the nest/house and include the buffer area where appropriate to minimize impacts from project activities. When removing materials from around an SFDFW nest/house, people should be cognizant of tree branches, fencing, or other materials that may support the nest/house structure. Whenever possible, leave these materials in place. However, if they must be removed and the nest/house may become compromised, live trapping may be necessary.

- For all SFDFW nests/houses that cannot be avoided by project activities (i.e., will require relocation), a qualified biologist shall live trap to determine if the nest/house is in use. Trapping activities should occur prior to April and after mid-July each year to prevent impacts to SFDFW rearing young or young SFDFW. If a nest/house is found to be unoccupied or not in use for 3 full days (2 nights of trapping), then it may be removed. The nest/house shall be relocated or a pile of replacement sticks shall be placed outside of the development footprint for future colonization or re-use. If a lactating female is trapped, project activities shall be postponed until young have become independent.
- Trapped SFDFW may be kept in captivity by a qualified biologist until their nests/houses are relocated to suitable habitat outside of the development footprint. Every effort should be made to minimize the time the SFDFW is held in captivity. A CNDDDB form shall be filled out and submitted to CDFW for any SFDFW that are trapped. Once trapped, nests/houses shall be torn down and rebuilt surrounding a log-based structure, an inverted wooden planter, or similar structure having at least one entrance and exit hole that is slightly buried into the ground to anchor. Any cached food and nest/house material encountered shall be placed within the new structure during rebuilding. Whenever possible, the structure shall be “over-built” by adding larger branches for predator protection to create an area for the individual to safely emerge outside of the nest/house. One or more persons shall remain outside the release structure for up to 10 minutes to mimic a predator. Relocated nests/houses are intended to provide a release site and opportunity for SFDFW to relocate to another nest/house (most SFDFW average more than one nest/house and may or may not remain with a relocated nest/house), or to colonize the new structure.
- Once nests/houses are relocated, any trapped SFDFW should be released into the reconstructed nest/house using a “soft release,” by plugging the individual into the shelter using loose dirt over the entrance.
- Relocated nests/houses are expected to eventually be re-colonized and should be monitored 1 year post construction using visual surveys and/or wildlife cameras to determine if a relocated nest has returned to use. A monitoring report should be submitted to CDFW to document use or non-use of relocated nests/houses.

4.2.4.12 American Badger

The sites support suitable breeding and foraging habitat for the American badger. The following mitigation measures shall be implemented:

- A qualified biologist shall conduct a survey of the grassland habitat on and within 300 feet of the site to identify any American badger burrows on the site. The survey will be conducted no sooner than 2 weeks prior to the start of construction.
- Impacts to active badger dens will be avoided by establishing exclusion zones around all active dens, within which construction-related activities shall be prohibited until denning is complete or the den is abandoned.
- A qualified biologist will monitor each den once per week in order to track its status and inform the District of when a den area has been cleared for construction.
- If the biologist determines that the burrow is not being used for breeding, then a one-way door will be installed on the burrow (upon approval by CDFW) to passively exclude the badger from the burrow. Once the badger has been excluded, the burrow may be collapsed. If the burrow is outside of the permanent disturbance area or access roads and within 300 feet of the site, the one-way door may remain in place until construction is completed and be reopened for future use.

4.2.4.13 Ringtail

Ringtails have a low potential for denning in an area that would be impacted by future construction activities. Because ringtails maintain multiple dens, the loss of one den would be a negligible impact. However, the loss of a natal or maternity den would be a significant impact. The following mitigation measure shall be implemented:

- If vegetation removal or construction activities occur outside of the breeding season for ringtails (February 1 through May 1), no pre-construction surveys are necessary. If the breeding season cannot be completely avoided, a qualified biologist shall conduct a pre-construction survey within 2 weeks prior to commencement of construction for potential natal or maternity den trees. If an active den is found, a qualified biologist, in consultation with CDFW, will determine a construction-free buffer zone to be established around the den until the young have left the den or the den is no longer active.

4.3 PROTECTED TREES

Several mature trees on the sites are protected by the San Mateo County tree protection ordinance. The County typically requires a permit for the trimming or removal of “significant trees” and may require an arborist report with the permit application for trees that may need to be trimmed or removed. The ordinance defines “significant trees” as any live woody plant rising above the ground with a single stem or trunk of a circumference of 38 inches or more measured at 4.5 feet vertically above the ground or immediately below the lowest branch, whichever is lower, and having the inherent capacity of naturally producing one main axis continuing to grow more vigorously than the

lateral axes. Removed or trimmed “significant trees” may require a tree removal permit from the County. As part of the permit, the County may require the trees to be replaced.

4.4 MIDPENINSULA REGIONAL OPEN SPACE DISTRICT RMPs

The District (2022b) has identified Resource Management Policies (RMPs), the purposes of which are to effectively manage and protect natural resources on District lands. RMPs that address the identification, evaluation, and protection of biological resources are summarized below.

Goal VM - Sustain and promote viable and diverse native plant communities characteristic of the region.

Policy VM-1: Maintain the diversity of native plant communities.

Policy VM-3: Protect and enhance the habitats and populations of special-status plant species.

- Identify the location and condition of special-status plants and their habitats as part of the Resource Management Plan for a preserve or geographical area.
- Conduct surveys for special-status plants during the appropriate season before significant site-specific development or any unusual anticipated increase in use. Modify the project or use to avoid impacting such plants.
- Protect areas with special-status species from human activities and other negative impacts, such as erosion. Examples of protective measures include trail rerouting, signs, and fencing.

Goal WM - Maintain and promote healthy and diverse native wildlife populations.

Policy WM-1: Understand and maintain the diversity of native wildlife.

- Identify wildlife usage, movement patterns, and habitat features with high value to wildlife.
- Consider and avoid or minimize impacts on wildlife when planning trails and other facilities.
- Develop a wildlife data base to record wildlife sightings and guide management decisions.

Policy WM-2: Protect, maintain, and enhance habitat features that have particular value to native wildlife.

- Inventory critical and sensitive wildlife habitats and develop management strategies for their protection.
- Leave brush piles, snags, and fallen trees in areas where they do not pose a fire hazard or visual blight, to provide cover and nesting sites for animals, and nursery conditions for forest seedlings.

- Evaluate the wildlife habitat value associated with human-made structures before altering or removing them and avoid or mitigate any impacts.

Policy WM-3: Protect animal populations against the impact of human actions.

- Discourage human intrusion into sensitive wildlife habitats by appropriate placement of facilities and trails.
- Identify and eliminate barriers (e.g., remove unnecessary fences, old barbed wire, and other barriers) and provide safe crossings (e.g. protect established wildlife crossings and use wildlife friendly fencing) to enhance wildlife movement on a regional basis.
- Consult with responsible wildlife agencies to conserve special-status species or to control problem wildlife when human life, property, or other significant natural resources are threatened.

Policy WM-4: Protect and enhance the habitats and populations of special-status animal species.

- Conduct surveys of special-status animals in affected areas before initiating significant development or any substantial increase in use. Give priority to protection of special-status species.

Goal IPM- Control pests by consistent implementation of IPM principles to protect and restore the natural environment and provide for human safety and enjoyment while visiting and working on District lands.

Policy IPM-2: Take appropriate actions to prevent the introduction of new pest species to District preserves, especially new invasive plants in natural areas, rangelands, and agricultural properties.

Policy IPM-4: Monitor pest occurrences and results of control actions and use adaptive management to improve results.

La Honda Creek Open Space Preserve Master Plan

Appendix C of the Preserve's Master Plan includes the following applicable Environmental Protection Guidelines for natural resources at the Preserve.

BIO-3. As required by Mitigation BIO-1c of the San Mateo Coastal Annexation Environmental Impact Report (EIR), in special-status species habitat areas, trail use levels shall be limited as appropriate to ensure protection of resources. Techniques for limiting use may include, but are not limited to:

- Physical access controls
- Seasonal or intermittent closures

BIO-6. As required by Mitigation BIO-1f of the San Mateo Coastal Annexation EIR, a particular trail or other facility may need to be closed during seasonal periods critical to special-status species, where overuse threatens resource values, or for other reasons to protect biological resources. Where a trail or surrounding habitat warrants special notice limiting trail use, the trail shall be clearly designated and should be equipped with use signs and appropriate barriers to discourage unauthorized use. Missing or damaged signs, gates, fences, and barriers shall be repaired or replaced as soon as possible. Closure notices shall include the reason(s) for the closure, an estimate of how long the facility will be closed, and a telephone number to call for further information.

BIO-10. As required by Mitigation BIO-1j of the San Mateo Coastal Annexation EIR, revegetation and/or enhancement shall be undertaken where any sensitive habitat or special-status species habitat will be disturbed or destroyed by facility construction. Revegetation work shall be implemented prior to or concurrently with the development. The design of an appropriate revegetation program shall fully compensate for the lost habitat, with no net loss of habitat functions and values. Riparian and wetland habitat impacts will typically be mitigated at a 3:1 ratio for high quality habitat areas and at lower ratios where lower habitat quality justifies a lower ratio. A lower ratio may also be justified if habitat mitigation is implemented and verified as successful prior to the occurrence of impacts. Mitigation shall be based on in-kind replacement of impacted habitat with habitat of equal or better biotic value. The revegetation program shall be designed by a qualified biologist or ecologist and submitted to the appropriate regulatory or trustee agency for approval. At a minimum, the revegetation program shall include a description of project impacts, mitigation calculations, the mitigation site, revegetation techniques, maintenance measures, a long-term monitoring program, and contingency measures. Native plant materials suited to the site will be utilized in all mitigation work.

BIO-11. As required by Mitigation BIO-1k of the San Mateo Coastal Annexation EIR, periodic monitoring of known sensitive habitats adjacent to trails or other facilities shall be conducted to determine if unacceptable soil compaction or other adverse impacts are occurring. If monitoring reveals that undesirable soil compaction or impact to a sensitive habitat is occurring, barriers or other appropriate measures (such as trail rerouting) shall be employed as needed to discourage off-trail use. Brush or other aesthetically acceptable barriers can be used to cover illegal trails, abandoned trails, or shortcuts to discourage use until natural vegetation returns.

BIO-12. As required by Mitigation BIO-1l of the San Mateo Coastal Annexation EIR, should sensitive habitat be impacted such that it necessitates permanently closing a trail or staging area, a management program to rehabilitate the area will be developed. Such a program shall include discing and replanting or other techniques appropriate to the habitat type to return the site to a natural condition and sufficiently blocking the trail with barriers to effectively prohibit use. Management shall include monitoring the site to ensure that it returns to a natural condition without the intrusion of invasive exotic plants. Management shall also include design elements, maintenance, and monitoring to ensure that erosion is minimized. Construction and maintenance of trails will require the trimming and/or removal of vegetation along the trail route and staging areas.

BIO-13. As required by Mitigation BIO-1m of the San Mateo Coastal Annexation EIR, existing native vegetation shall only be removed as necessary to accommodate the trail clearing width. The minimum horizontal clearing width from physical obstructions varies based on the type of trail but

should be no less than 2 feet from the outer limits of the trail tread and shall be determined on a case-by-case basis to protect special natural features. Maximum vertical distance from overhanging branches shall be 12 feet on trails open to equestrian or bicycle use. Maximum vertical distance from overhanging branches shall be 8 feet on hiking trails. Clearing shall be determined on a case-by-case basis to protect special natural features.

BIO-14. As required by Mitigation BIO-1n of the San Mateo Coastal Annexation EIR, good pruning practices should be followed when vegetation growth must be cleared. Ground cover plants and low shrubs should not be cleared beyond the original construction standard. The construction standard shall be defined as the trail tread width plus 1-2 feet from each side of the edge of the trail tread. Noxious plants (e.g., yellow star-thistle) shall be controlled along trails and the edges of staging areas in a timely manner.

This page intentionally left blank

5.0 REFERENCES

- AECOM. 2016. Sears Ranch Parking Area Biotic Assessment. Oakland, CA. Prepared for Midpeninsula Regional Open Space District. October 28.
- American Ornithologists' Union (AOU). 1998. Check-list of North American birds. 7th Edition. American Ornithologists' Union, Washington, D.C.
- AmphibiaWeb. 2022. Website: www.amphibiaweb.org. University of California, Berkeley.
- Ascent Environmental (Ascent). 2012. La Honda Creek Open Space Preserve Master Plan, Final Initial Study/Mitigated Negative Declaration and Response to Comments. Prepared for Midpeninsula Regional Open Space District. August 22.
- Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken, editors. 2012. The Jepson Manual: Vascular Plants of California, Second Edition. University of California Press, Berkeley.
- Bradley, R.D., L.K. Ammerman, R.J. Baker, L.C. Bradley, J.A. Cook, R.C. Dowler, D.J. Schmidly, F.B. Stangl, Jr., R.A. Van Den Bussche, and B. Würsig. 2014. Revised Checklist of North American Mammals North of Mexico, 2014. Occasional Papers, Museum of Texas Tech University No. 237.
- California Department of Fish and Game (CDFG). 2009. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. November.
- California Department of Fish and Game (CDFG). 2010. List of Vegetation Alliances and Associations. Vegetation Classification and Mapping Program, California Department of Fish and Game. Sacramento, CA. September.
- California Department of Fish and Game (CDFG). 2012. Staff Report on Burrowing Owl Mitigation. State of California, Natural Resources Agency, Department of Fish and Game, March 7.
- California Department of Fish and Wildlife (CDFW). 2022. Query of the California Natural Diversity Database for special-status species occurrences within 5 miles of the project site. Biogeographic Data Branch, California Department of Fish and Wildlife, Sacramento. January.
- California Department of Parks and Recreation. 2017. Marbled Murrelet Landscape Management Plan for Zone 6. Santa Cruz District, Felton CA. May.
- California Native Plant Society (CNPS). 2022. Inventory of Rare and Endangered Plants (online edition, v9-01 1.0). California Native Plant Society, Rare Plant Program, Sacramento, CA. Website www.rareplants.cnps.org. January 3.

- Central Coast Bat Research Group. 2001. Impact Assessment and Mitigation/Action Recommendations for the Pallid Bat Colony in the La Honda Big Red Barn. Felton, CA. Prepared for Midpeninsula Regional Open Space District.
- Central Coast Bat Research Group. 2002. Post-Construction Assessment for the Pallid Bat Colony in the La Honda Big Red Barn. Felton, CA. Prepared for Midpeninsula Regional Open Space District.
- Conservation Metrics, Inc. 2021. Automated Acoustic Surveys for Marbled Murrelet, Steller's Jay, and Northern Spotted Owl in the Santa Cruz Mountains – 2020. Santa Cruz, CA. Prepared for Midpeninsula Regional Open Space District.
- Conservation Metrics, Inc. 2022. Automated Acoustic Surveys for Marbled Murrelet, Steller's Jay, and Northern Spotted Owl in the Santa Cruz Mountains – 2021. Santa Cruz, CA. Prepared for Midpeninsula Regional Open Space District. Final Report. May.
- Crother, B.I. (ed.). 2017. Scientific and Standard English Names of Amphibians and Reptiles of North America North of Mexico, with Comments Regarding Confidence in Our Understanding, pp. 1-102. SSAR Herpetological Circular No. 43.
- eBird. 2022. eBird: An online database of bird distribution and abundance [web application]. Cornell Lab of Ornithology, Ithaca, New York. Available: www.ebird.org. (Accessed: August 5.)
- H.T. Harvey. 2017a. La Honda Open Space Preserve – Winter Bat Survey for the Red Barn Public Access Project. Prepared for MIG/TRA. March 30.
- H.T. Harvey. 2017b. Sears Ranch – Pre-demolition Bat Survey Report. Prepared for MIG/TRA. September 14.
- H.T. Harvey. 2017c. La Honda Open Space Preserve – Bat Surveys for the Red Barn Public Access Project. Prepared for MIG/TRA. October 12.
- Jepson Flora Project (eds.) (*Jepson eFlora*). 2021. The Jepson Herbarium. Available online (as of 11/2021) at: ucjeps.berkeley.edu/eflora/.
- McAllister, S.E. and Associates (McAllister). 2019. La Honda Open Space Preserve Marbled Murrelet Surveys 2018 and 2019. Prepared for Midpeninsula Regional Open Space District. October 17.
- Midpeninsula Regional Open Space District (District). 2012a. Mitigation Monitoring Program, La Honda Creek Open Space Preserve Master Plan San Mateo County, CA.
- Midpeninsula Regional Open Space District (District). 2012b. Final La Honda Creek Open Space Preserve Master Plan. August.

- Midpeninsula Regional Open Space District (District). 2013. Birds Observed at the La Honda Creek Open Space Preserve.
- Midpeninsula Regional Open Space District (District). 2018a. San Francisco Dusky-Footed Woodrat (SFDFW) Protocol. March 2.
- Midpeninsula Regional Open Space District (District). 2018b. Western Pond Turtle Potential Nesting Habitat. Created by Matthew Chaney. February 6.
- Midpeninsula Regional Open Space District (District). 2019. American Badger Habitat Suitability Assessment: Cost Surface Layer with Draft Linkage Design and Badger Records. Map prepared by Pathways for Wildlife.
- Midpeninsula Regional Open Space District (District). 2021a. District Special-Status Species GIS layers.
- Midpeninsula Regional Open Space District (District). 2021b. Certified Program Environmental Impact Report for the Wildland Fire Resiliency Program. January. Los Altos, California.
- Midpeninsula Regional Open Space District (District). 2022a. La Honda Creek Open Space Preserve Amphibian and Reptile List. Natural Resources Data Base. June 24.
- Midpeninsula Regional Open Space District (District). 2022b. Resource Management Policies. May.
- National Marine Fisheries Service (NMFS). 2005. Central California Coast Steelhead Distribution. Vector Digital Data. NOAA Fisheries. August.
- National Marine Fisheries Service (NMFS). 2006. Biological Opinion letter from National Marine Fisheries Service (NMFS) to Lieutenant Colonel Feir, District Engineer, US Army Corps of Engineers. June 21.
- Sawyer, J.O., T. Keeler-Wolf, and J. Evens. 2009. A Manual of California Vegetation, Second Edition. California Native Plant Society. Sacramento, California.
- Sequoia Audubon Society (Sequoia). 2001. San Mateo County Breeding Bird Atlas. May.
- Thomson, R.C., Wright, A.N., and Shaffer, H.B. 2016. California Amphibian and Reptile Species of Special Concern. Oakland, CA: University of California Press.
- U.S. Department of Agriculture Soil Conservation Service (USDA-NRCS). 2022. Web Soil Survey Website. Available (January) at: websoilsurvey.sc.egov.usda.gov/app/WebSoilSurvey.aspx.
- U.S. Fish and Wildlife Service (USFWS). 2022a. IPaC Information for Planning and Consultation. List of federally listed species known to occur in the project area. January 3.
- U.S. Fish and Wildlife Service (USFWS). 2022b. Critical Habitat Portal. ecos.fws.gov/crithab/.

-
- U.S. Geological Survey (USGS). 1902. California Santa Cruz Quadrangle. 30-minute topographic quadrangle. USGS, Washington, D.C.
- Vibro-Acoustic Consultants (VACC). 2013. Ambient and Action-Generated Noise Level Study. Purisima Creek Redwoods and El Corte de Madera Creek Open Space Preserves, Half Moon Bay, CA. January 23.
- Vollmar Natural Lands Consulting (Vollmar). 2021. 2021 Botanical Resources Survey Report, La Honda Area Preserves, La Honda Creek, El Corte Madera Creek, Thornewood, and Windy Hill Open Space Preserves, San Mateo County, California. Prepared for Midpeninsula Regional Open Space District. November.
- Vollmar Natural Lands Consulting (Vollmar). 2022a. Delineation of Potential Jurisdictional Waters, La Honda Creek Parking and Trailhead Feasibility Study. La Honda Creek Open Space Preserve, San Mateo County, California. May.
- Vollmar Natural Lands Consulting (Vollmar). 2022b. Delineation of Potential Jurisdictional Waters, La Honda Creek Parking and Trailhead Access Feasibility Study – Site E3, La Honda Creek Open Space Preserve, San Mateo County, California. Prepared for Midpeninsula Regional Open Space District. May.

This page intentionally left blank

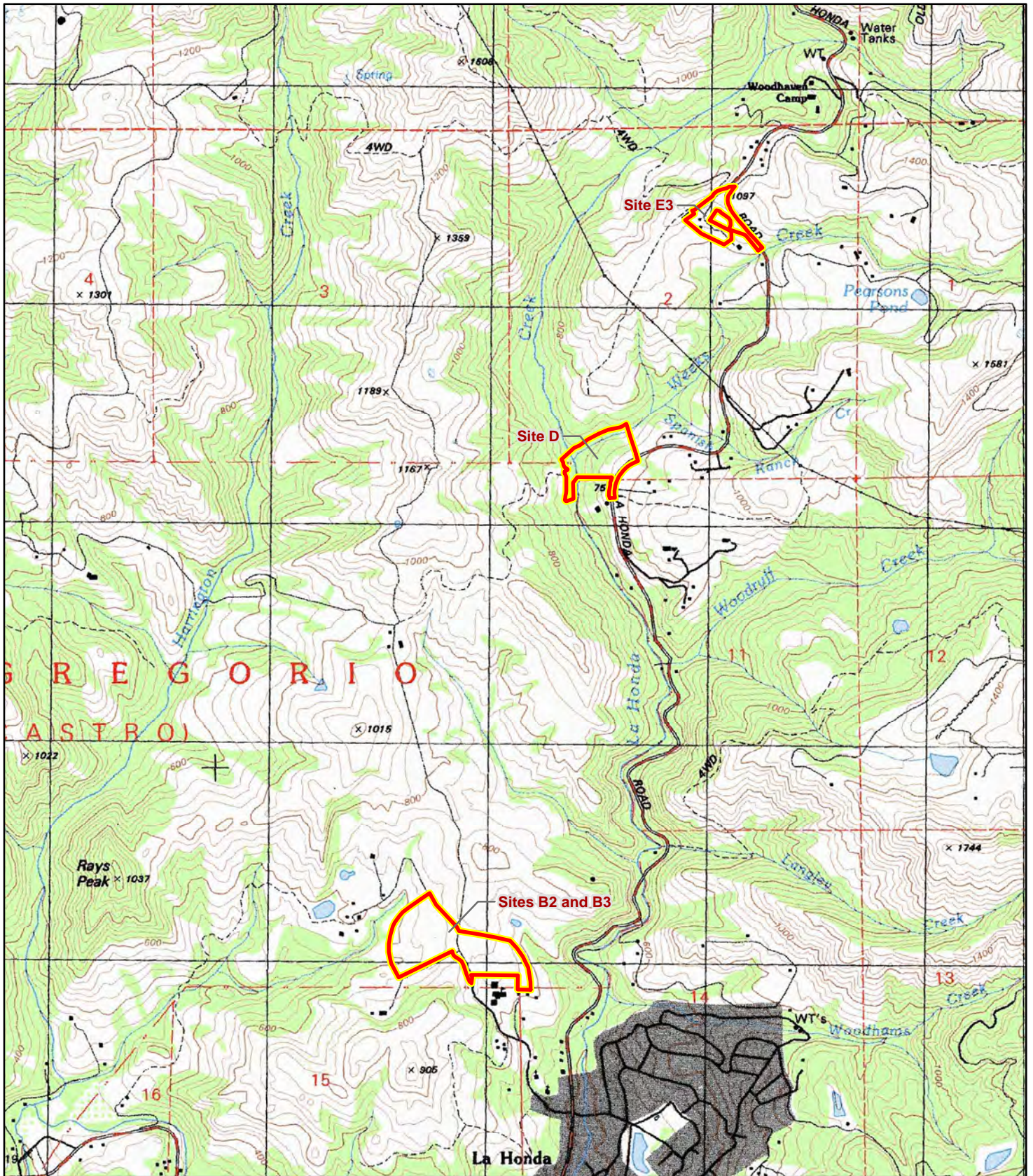
APPENDIX A

FIGURES

Figure 1: Project Location

Figure 2: Project Sites

This page intentionally left blank



LSA

LEGEND

 Project Site



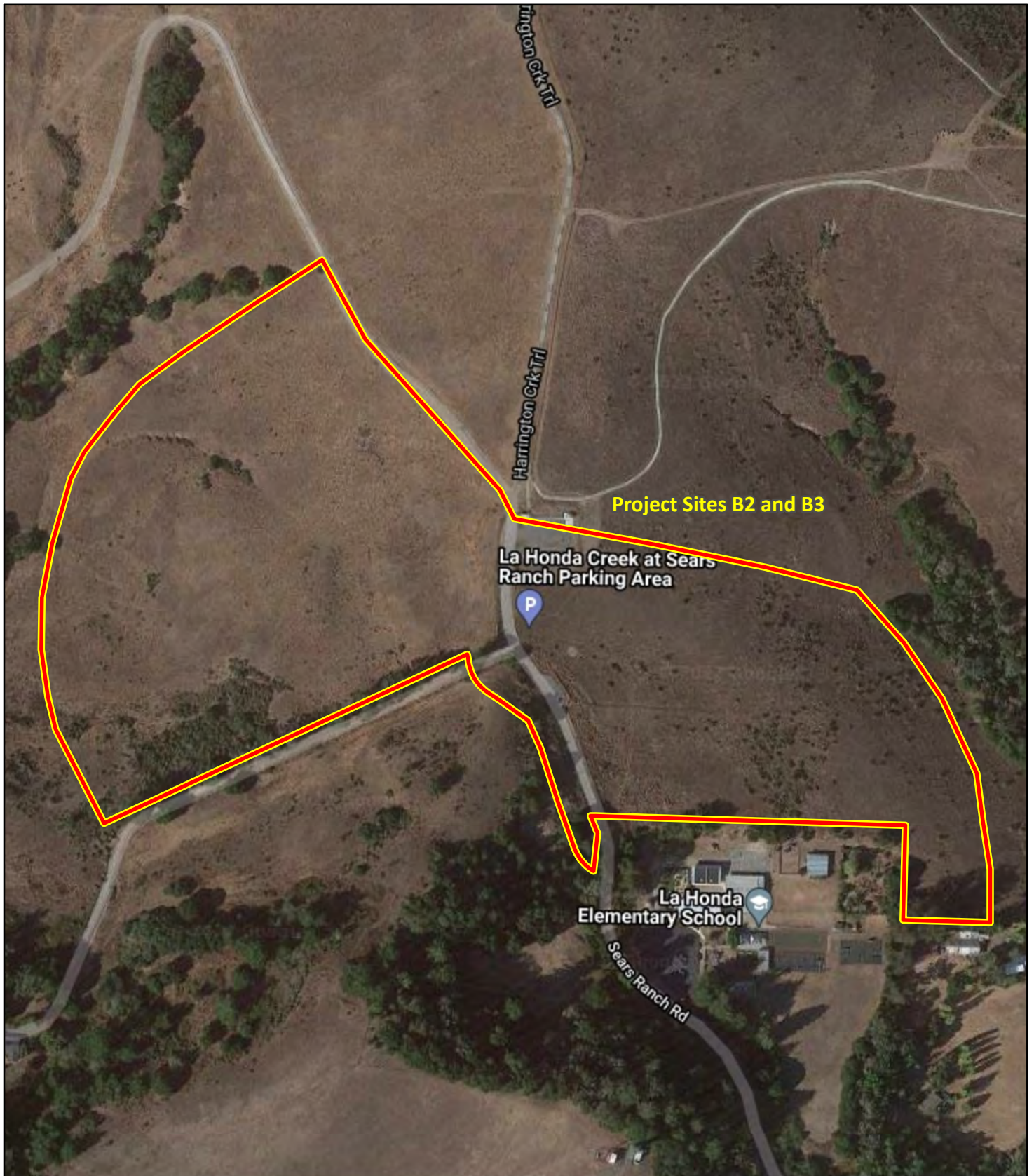
0 1000 2000
FEET

SOURCE: USGS 7.5-minute Topo Quad - La Honda, Calif. (1997).

I:\RAA2102\GIS\Maps\Cultural\Report\Figure 1_Project Locations.mxd (1/26/2022)

FIGURE 1

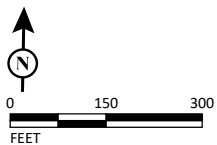
*La Honda Creek Open Space Preserve
Feasibility Study Project
San Mateo County, California
Project Locations*



LSA

LEGEND

 Project Site



SOURCE: Google Maps (2022).

I:\RAA2102\GIS\Maps\Cultural\Report\Figure 2_Project Sites.mxd (1/26/2022)

FIGURE 2a

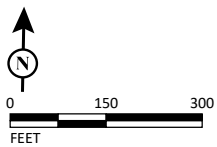
*La Honda Creek Open Space Preserve
Feasibility Study Project
San Mateo County, California
Project Sites B2 and B3*



LSA

LEGEND

 Project Site



SOURCE: Google Maps (2022).

I:\RAA2102\GIS\Maps\Cultural\Report\Figure 2_Project Sites.mxd (1/26/2022)

FIGURE 2b

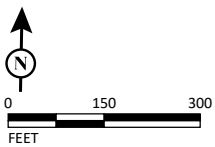
*La Honda Creek Open Space Preserve
Feasibility Study Project
San Mateo County, California
Project Site D*



LSA

LEGEND

 Project Site



SOURCE: Google Maps (2022).

I:\RAA2102\GIS\Maps\Cultural\Report\Figure 2_Project Sites.mxd (1/26/2022)

FIGURE 2c

*La Honda Creek Open Space Preserve
Feasibility Study Project
San Mateo County, California
Project Site E3*

APPENDIX B

BOTANICAL RESOURCES AND JURISDICTIONAL DELINEATION MAPS LA HONDA OPEN SPACE PRESERVE

Prepared by Vollmar Natural Lands Consulting, November 2021 and May 2022

This page intentionally left blank

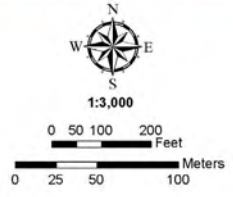
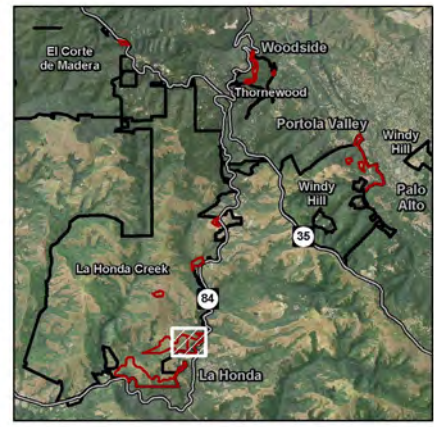
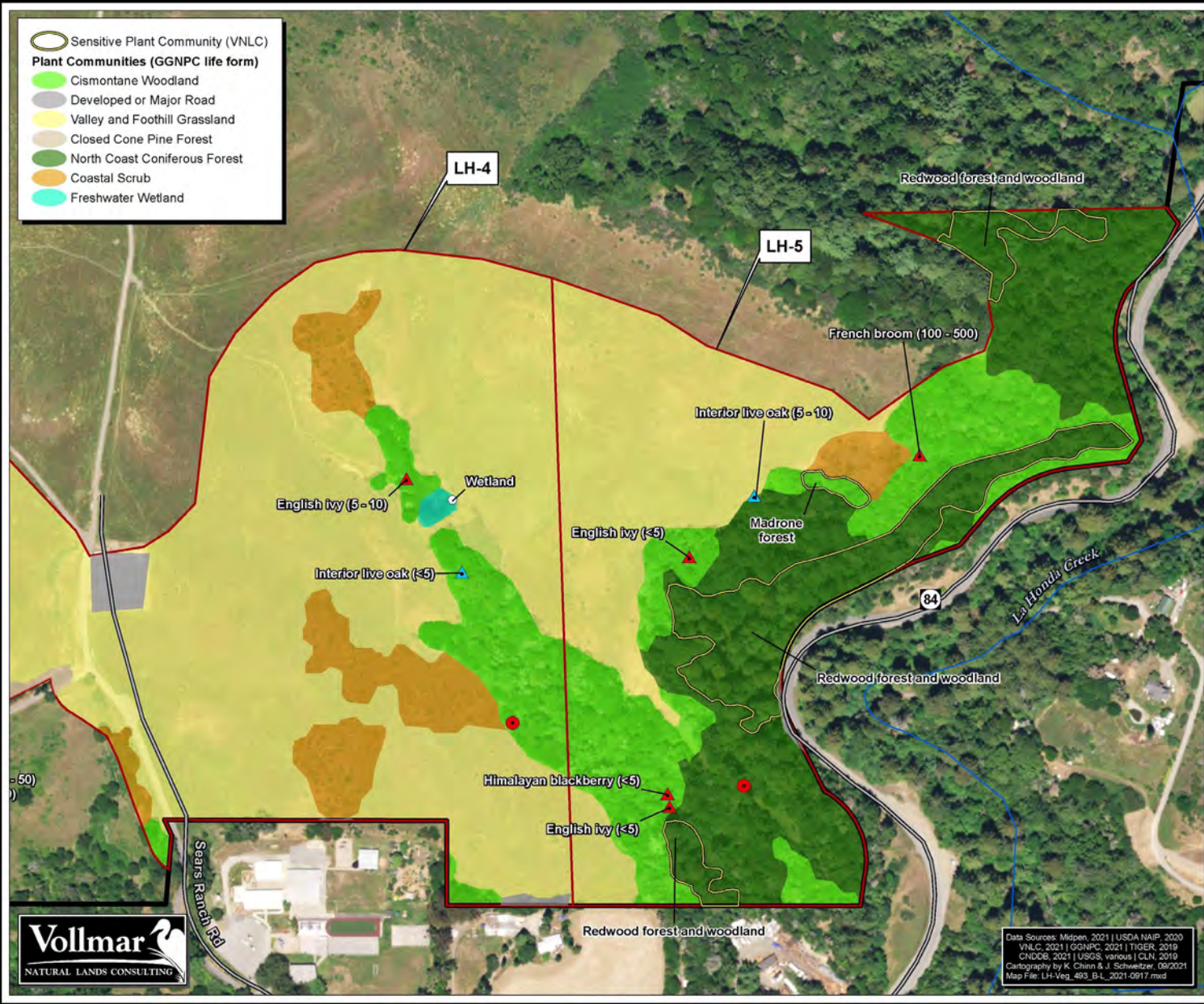
APPENDIX A-5 LH-4 East, LH-5 Botanical Resources Map

La Honda Area Preserves
San Mateo County, California

- Sensitive Plant Community (VNLC)
- Plant Communities (GGNPC life form)**
- Cismontane Woodland
- Developed or Major Road
- Valley and Foothill Grassland
- Closed Cone Pine Forest
- North Coast Coniferous Forest
- Coastal Scrub
- Freshwater Wetland

- Legend**
- Representative Invasive Weed*
 - Representative Locally Rare Plant*
 - Representative Likely Sudden Oak Death
 - Other Feature (see map label)
 - Stream
 - Selected Highway or Road
 - Survey Area (see map label)
 - La Honda Creek Preserve

* Map label indicates population range
 Note: Golden Gate National Parks Conservancy life form data has been reclassified to match CNPS classes



Data Sources: Midpen, 2021 | USDA NAIP, 2020
 VNLC, 2021 | GGNPC, 2021 | TIGER, 2019
 CNDDB, 2021 | USFS, various | CLN, 2019
 Cartography by K. Chinn & J. Schweitzer, 09/2021
 Map File: LH-Veg_493_B4_2021-0917.mxd

APPENDIX A-2 LH-2 Botanical Resources Map

La Honda Area Preserves
San Mateo County, California

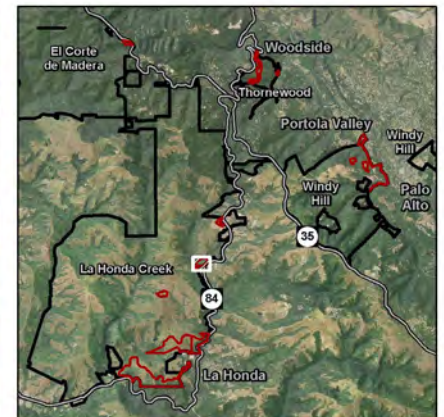
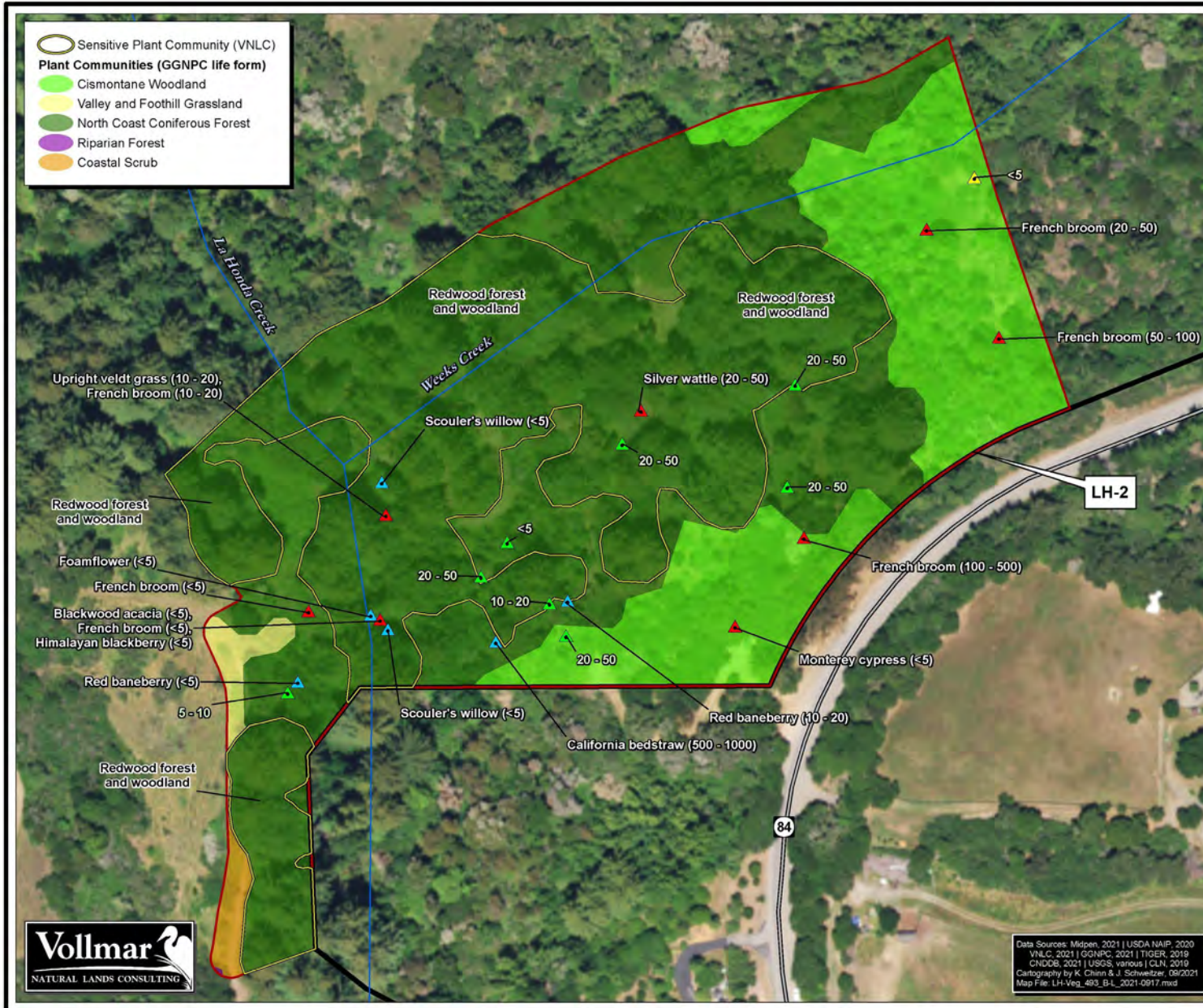
-  Sensitive Plant Community (VNLC)
- Plant Communities (GGNPC life form)**
-  Cismontane Woodland
-  Valley and Foothill Grassland
-  North Coast Coniferous Forest
-  Riparian Forest
-  Coastal Scrub

Legend

-  Representative Invasive Weed*
-  Representative Locally Rare Plant*
-  California Bottle-brush Grass (CRPR 4.3)*
-  Western Leatherwood (CRPR 1B.2)*
-  Stream
-  Selected Highway or Road
-  Survey Area (see map label)
-  La Honda Creek Preserve

* Map label indicates population range

Note: Golden Gate National Parks Conservancy life form data has been reclassified to match CNPS classes



1:1,500



Data Sources: Midpen, 2021 | USDA NAIP, 2020
VNLC, 2021 | GGNPC, 2021 | TIGER, 2019
CNDDB, 2021 | USGS, various | CLN, 2019
Cartography by K. Chen & J. Schweitzer, 09/2021
Map File: LH-Veg_493_B4_2021-0917.mxd

APPENDIX A-1 LH-1 Botanical Resources Map

La Honda Area Preserves
San Mateo County, California

- Plant Communities (GGNPC life form)**
- Cismontane Woodland
 - Developed or Major Road
 - Valley and Foothill Grassland
 - Closed Cone Pine Forest

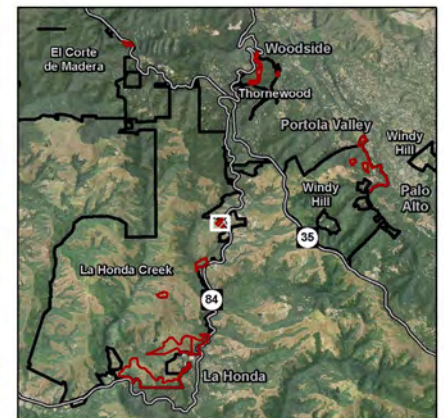


Legend

- Representative Invasive Weed*
- Stream
- Selected Highway or Road
- Survey Area (see map label)
- La Honda Creek Preserve

* Map label indicates population range
Multiple additional invasive plant species are present within project site.

Notes:
Golden Gate National Parks Conservancy life form data has been reclassified to match CNPS classes



1:1,500



Data Sources: Midpen, 2021 | USDA NAIP, 2020
VNLG, 2021 | GGNPC, 2021 | TIGER, 2019
CNDDB, 2021 | USGS, various | CLN, 2019
Cartography by K. Chin & J. Schweitzer, 09/2021
Map File: LH-Veg_493_B1_2021-0917.mxd

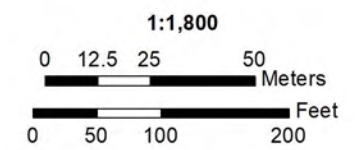
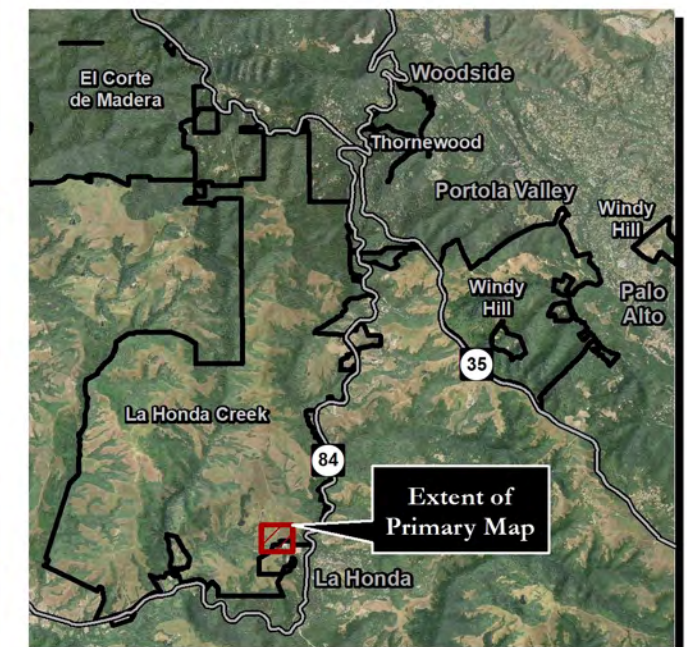
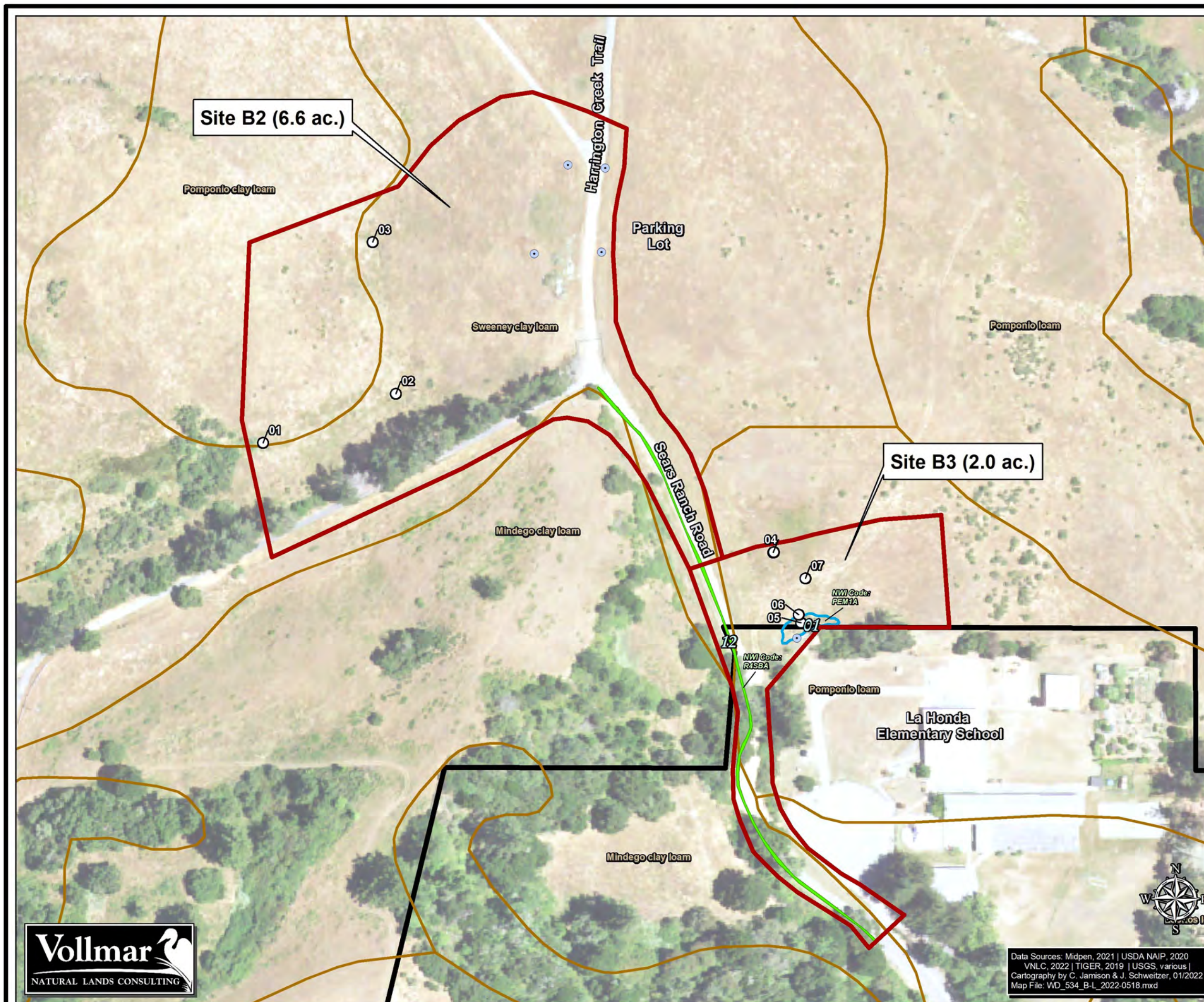
FIGURE 3a
Potential Jurisdictional Waters
Site B

La Honda Creek Parking and
 Trailhead Access Feasibility Study
 La Honda Creek Open Space Preserve
 San Mateo County, California

Legend

- Delineation Data Point (with point ID label)
- Soil Unit Boundary
- Study Area Boundary (20.9 ac.)
- La Honda Creek Preserve Boundary
- Potential Jurisdictional Habitats***
- Spring or Seep Wetland (0.216 ac.)
- Non-wetland Swale (0.084 ac.)

* NWI is National Wetland Inventory. For code definitions, see Table 2 in report. Table 2 also presents acreage for individual features.



Data Sources: Midpen, 2021 | USDA NAIP, 2020
 VNLC, 2022 | TIGER, 2019 | USGS, various |
 Cartography by C. Jamison & J. Schweitzer, 01/2022
 Map File: WD_534_B-L_2022-0518.mxd

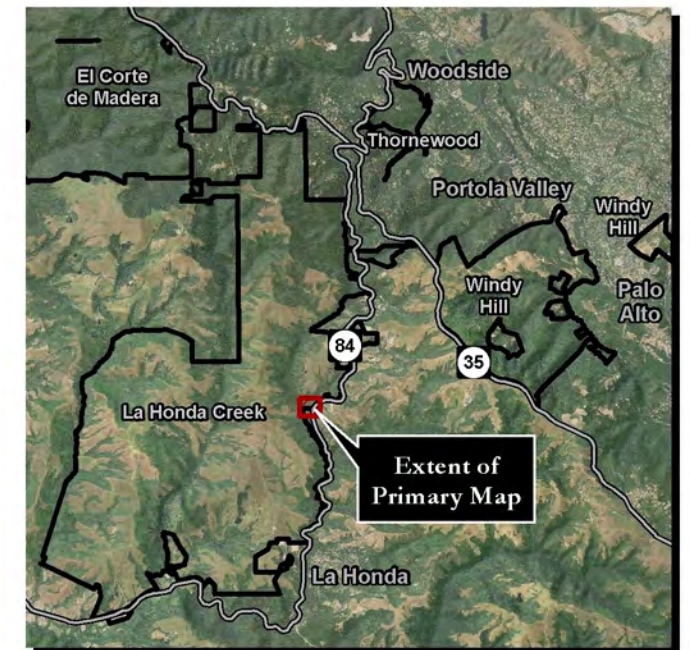
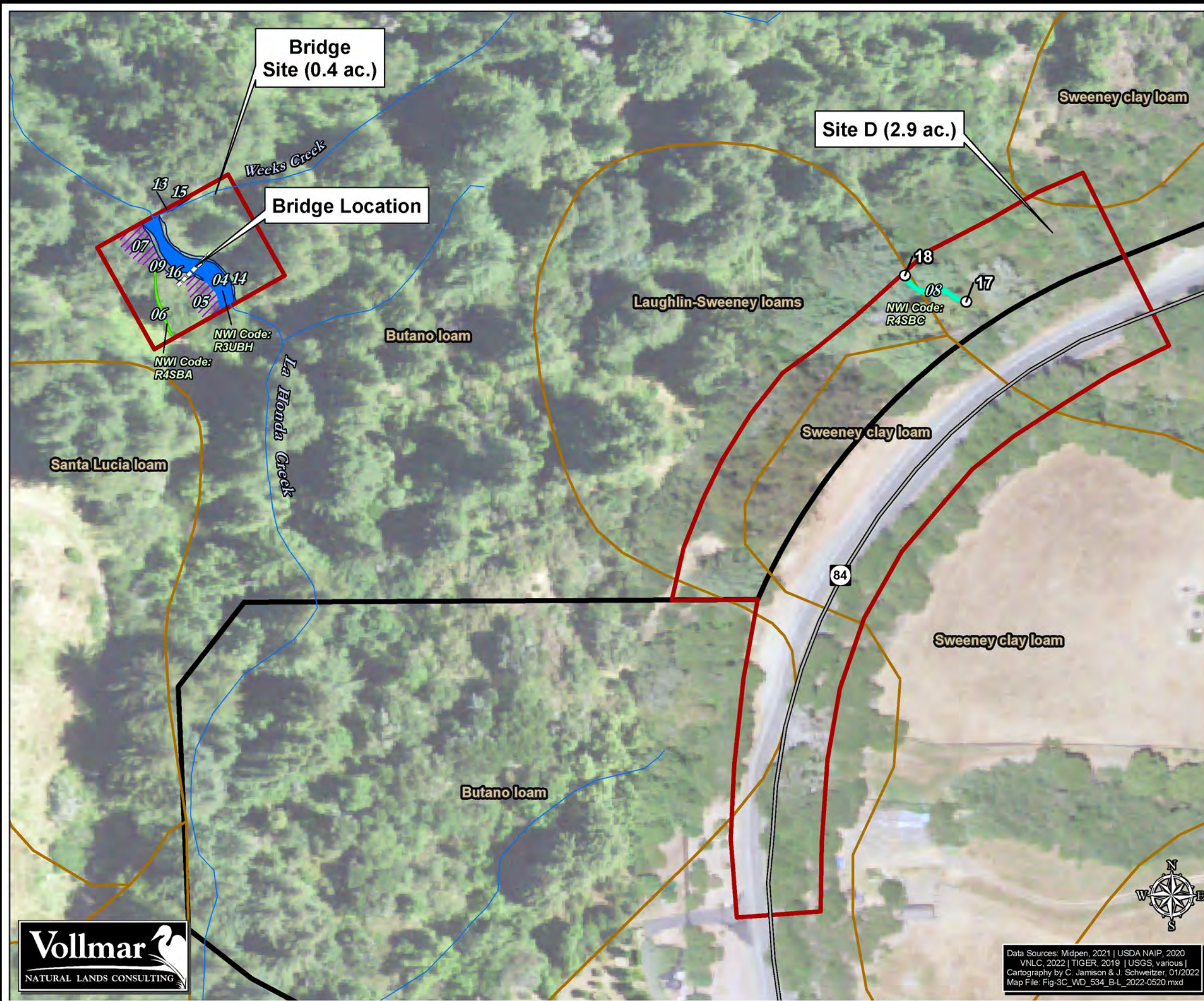
FIGURE 3c
Potential Jurisdictional Waters
Site D and Bridge Site

La Honda Creek Parking and
 Trailhead Access Feasibility Study
 La Honda Creek Open Space Preserve
 San Mateo County, California

Legend

- Delineation Data Point (with point ID label)
- Stream
- Highway
- Soil Unit Boundary
- Study Area Boundary (20.9 ac.)
- La Honda Creek Preserve Boundary
- Potential Jurisdictional Habitats***
- Wetland Channel (0.010 ac.)
- Non-wetland Swale (0.084 ac.)
- Non-wetland Stream Channel with OHWM (0.044 ac.)
- Stream Channel Beyond OHWM (0.029 ac.)
- Riparian Habitat (0.061 ac.)

* NWI is National Wetland Inventory. For code definitions, see Table 2 in report. Table 2 also presents acreage for individual features.



Data Sources: Midpen, 2021 | USDA NAIP, 2020
 VNL, 2022 | TIGER, 2019 | USGS, various |
 Cartography by C. Jamison & J. Schweitzer, 01/2022
 Map File: Fig-3C_WD_534_B-L_2022-0520.mxd



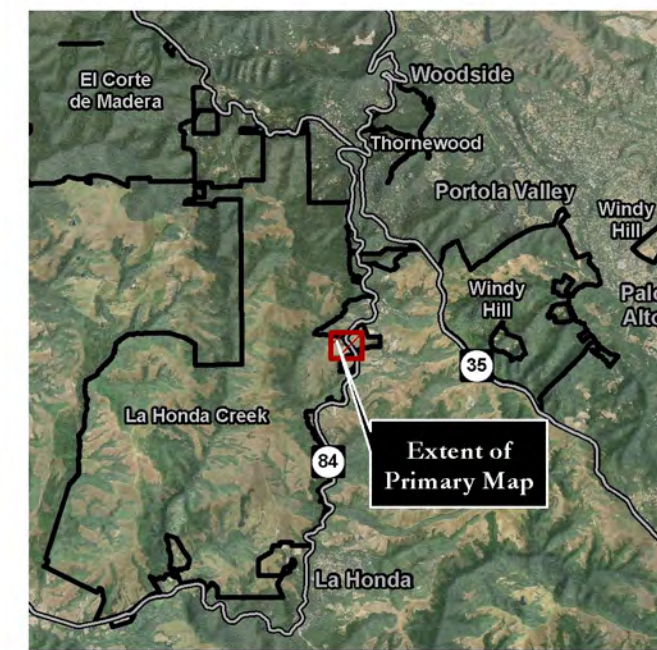
FIGURE 3 Potential Jurisdictional Habitats

La Honda Creek Parking and Trailhead Access Feasibility Study – Site E3
La Honda Creek Open Space Preserve
San Mateo County, California

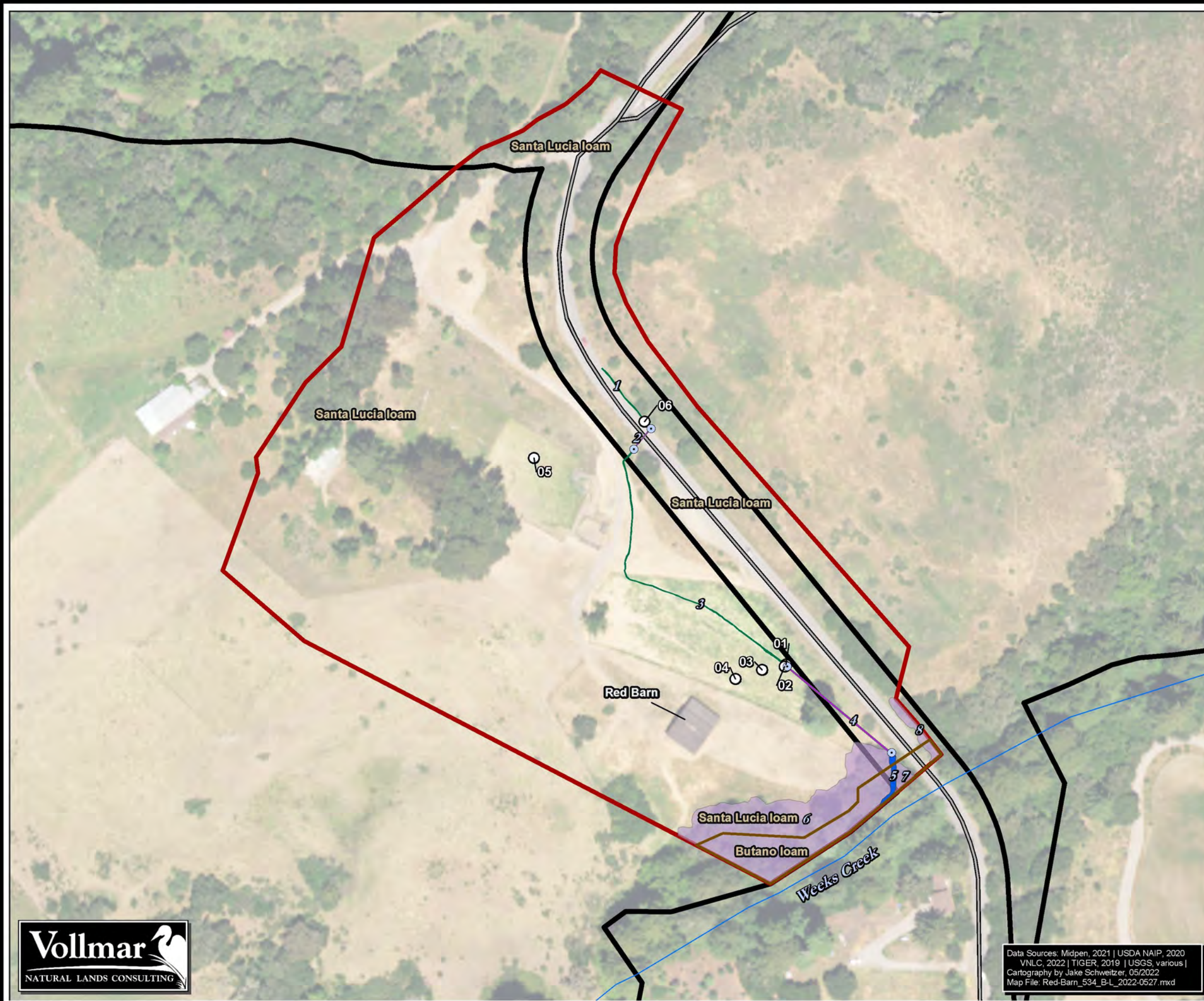
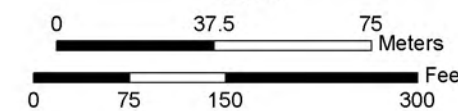
Legend

- Delineation Data Point (with point ID label)
- ⊙ Culvert Endpoint
- Stream
- Highway
- Soils Unit Boundary
- La Honda Creek Preserve
- Study Area Boundary (14.65 ac.)
- Potential Jurisdictional Waters/Habitats (with ID number)**
- Incised Non-wetland Channel (0.013 ac.)
- Non-wetland Drainage Swale (0.015 ac.)
- Underground Culvert (0.012 ac.)
- Riparian Corridor Habitat (0.695 ac.)

* National Wetland Inventory Code for all features is R4SBA.
For code definitions, see Table 2 in report.



1:1,800



Data Sources: Midpen, 2021 | USDA NAIP, 2020
VNLC, 2022 | TIGER, 2019 | USGS, various |
Cartography by Jake Schweitzer, 05/2022
Map File: Red-Barn_534_B-L_2022-0527.mxd

APPENDIX C

WILDLIFE SPECIES DETECTED DURING LSA'S SURVEY

This page intentionally left blank

Table C.1: Wildlife Species Detected During LSA Survey

| Common Name | Scientific Name | Status |
|------------------------------------|-----------------------------------|--|
| Reptiles | | |
| Western fence lizard | <i>Sceloporus occidentalis</i> | R |
| Amphibians | | |
| Pacific treefrog | <i>Hyla regilla</i> | R |
| Birds | | |
| Canada goose | <i>Branta canadensis</i> | R |
| Anna's hummingbird | <i>Calypte anna</i> | R |
| Red-shouldered hawk | <i>Buteo lineatus</i> | R |
| Red-breasted sapsucker | <i>Sphyrapicus ruber</i> | W (observed drill holes on tree trunks) |
| Acorn woodpecker | <i>Melanerpes formicivorus</i> | R |
| Nuttall's woodpecker | <i>Dryobates nuttallii</i> | R |
| Northern flicker | <i>Colaptes auratus</i> | R |
| Black phoebe | <i>Sayornis nigricans</i> | R |
| Steller's jay | <i>Cyanocitta stelleri</i> | R |
| California scrub-jay | <i>Aphelocoma californica</i> | R |
| Common raven | <i>Corvus corax</i> | R |
| Chestnut-backed chickadee | <i>Poecile rufescens</i> | R |
| Wrentit | <i>Chamaea fasciata</i> | R |
| Ruby-crowned kinglet | <i>Regulus calendula</i> | W |
| Pygmy nuthatch | <i>Sitta pygmaea</i> | R |
| White-breasted nuthatch | <i>Sitta carolinensis</i> | R |
| Brown creeper | <i>Certhia americana</i> | R |
| European starling | <i>Sturnus vulgaris</i> | R |
| Lesser goldfinch | <i>Spinus psaltria</i> | R |
| Golden-crowned sparrow | <i>Zonotrichia atricapilla</i> | W |
| California towhee | <i>Melospiza crissalis</i> | R |
| Western meadowlark | <i>Sturnella neglecta</i> | R |
| Red-winged blackbird | <i>Agelaius phoeniceus</i> | R/W |
| Yellow-rumped warbler | <i>Setophaga coronata</i> | W |
| Mammals | | |
| Botta's pocket gopher | <i>Thomomys bottae</i> | R (individual gopher and burrows observed) |
| San Francisco dusky-footed woodrat | <i>Neotoma fuscipes annectens</i> | R/houses/CSC |
| Black-tailed deer | <i>Odocoileus hemionus</i> | R |

R = Year-round resident; expected to nest/breed on the project site or vicinity

W = Winter resident

CSC = California Species of Special Concern

Source: LSA 2022.

This page intentionally left blank