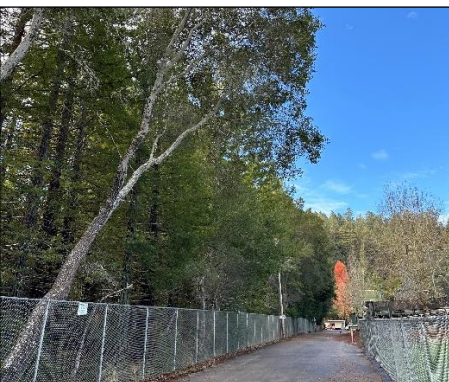




**H. T. HARVEY & ASSOCIATES**

Ecological Consultants



## San Lorenzo Valley Fields Master Plan Biological Resources Report

**Project #4905-01**

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April 2, 2026

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# Section 1. Introduction

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This report describes the biological resources present in the area of the proposed San Lorenzo Valley Fields Master Plan Project, the potential impacts of the proposed project on biological resources (including the potential effect of increased lighting on biological resources in and adjacent to the Master Plan area), and measures necessary to reduce project impacts to less-than-significant levels under the California Environmental Quality Act (CEQA). This assessment is based on the project maps and description provided to H. T. Harvey & Associates by David J. Powers & Associates through April 2025.

## 1.1 Project Location

The 0.42-acre Master Plan area is located on the San Lorenzo Valley Tri-Campus at 7105 Highway 9 in the Town of Felton, California (Figures 1 and 2). Situated in the San Lorenzo Valley within the Santa Cruz Mountains, the Master Plan area is surrounded by predominantly natural/forested areas as well as developed areas, with the rest of the Campus and Highway 9 located to the east, residential areas to the north, and forested areas on Campus property to the west, and forested areas on a residential property to the west and south. Forests and trails of Henry Cowell Redwoods State Park Fall Creek Unit are located approximately 615 feet to the west, the San Lorenzo River is located approximately 250 feet to the east, and Fall Creek is located approximately 0.1 mile to the southeast. The project site is located in the *Felton, California* 7.5-minute United States Geological Survey (USGS) quadrangle.

## 1.2 Project Description

### 1.1.1 Background

The Master Plan area is located on the San Lorenzo Valley K-12 Campus (hereafter referred to as the Campus), which currently consists of an existing football field, three softball fields, a baseball field, a soccer field, as well as other recreational sports facilities, school buildings, and four surface parking lots. There is also an 18-hole disc golf course located on school property in the forested regions immediately west of the main campus. The Master Plan area is limited to the central and southern sports fields: the football field, two southern softball fields, and the baseball field. These four sports fields currently have no large outdoor competition lights and thus do not host any nighttime/evening games. All games and practices are held during daylight hours, and evening games are held off-campus as away games. The Master Plan project proposes the installation of field lights on these four outdoor fields to provide nighttime use of the fields for games and other school-related events such as commencement ceremonies. An upgrade to the current public address (PA) system is also proposed.

### 1.1.2 Construction of Field Lights, Bleachers, Bullpen, and Restroom Building.

The project proposes to install and operate 17 new 5,700 Kelvin (K) Light-Emitting Diode (LED) field lights on the football field, softball fields, and baseball field on Campus; install four new bleachers and upgrade two existing bleachers; install one bullpen and a restroom building; and upgrade and operate the PA system at each field.

The new field lights will be installed in such a way as to illuminate the playing surfaces as well as the bleachers, ingress/egress, bullpen, restroom building, and perimeters of the sports fields. The lights will be of various heights depending on their placement and intended function, but the tallest lights—those intended to illuminate the playing surface—will be approximately 80 feet tall, with multiple luminaires within each light. According to the light plans provided by Musco Sports Lighting (2024), these field lights will use “TLC for LED™”, or “Total Light Control” technology, which features shades on the top of the lights to prevent illuminance upward into the night sky and direct the light onto the intended surface. All of these lights will be angled in such a way as to maximize the visibility on the playing field and associated areas. As a result, the new field lights will minimize glare in adjacent areas, and the lighting design is consistent with International Dark-Sky Association guidelines for outdoor sports lighting (International Dark-Sky Association 2025).

Construction activities would occur within an approximately 0.42-acre area throughout the Master Plan area and would last roughly six months. Equipment and workers would access the site via the Campus entrance off of Highway 9. Equipment staging would occur within the fields, in the general area of the proposed light poles, and possibly in existing paved parking lots on campus.

Construction activities will include materials delivery, excavation for pole foundation installation, trenching and boring for electrical conduit installation, installation of lighting poles, mounting of the luminaires, and restoration of disturbed surfaces including pavement and landscaping that was removed during excavation and trenching. Equipment such as an excavator, semi-trucks for loading materials, boring machine, concrete truck and pump, and hydraulic crane, would be utilized throughout the construction period.

### 1.1.3 Operation of Field Lights and Public Address System

Under existing lighting conditions, no events occur on the athletic fields after dark. Installation of stadium field lights will allow for evening and nighttime games, practices, and other school-related events. Table 1 provides the proposed schedule of use for field lights and PA system across the Master Plan area.

**Table 1. Proposed Use of the Field Lights and Public Address System**

<b>Proposed Use of Field</b>	<b>Use of Field Lights</b>	<b>Use of Public Address System</b>
Sports Games	A total of up to four nights of varsity/junior varsity interscholastic competition per annual season, comprised of the annual seasons for football,	Yes (play-by-play commentary only permitted during football games). All other athletic competitions shall limit the use of the public address systems to

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**Table 1. Proposed Use of the Field Lights and Public Address System**

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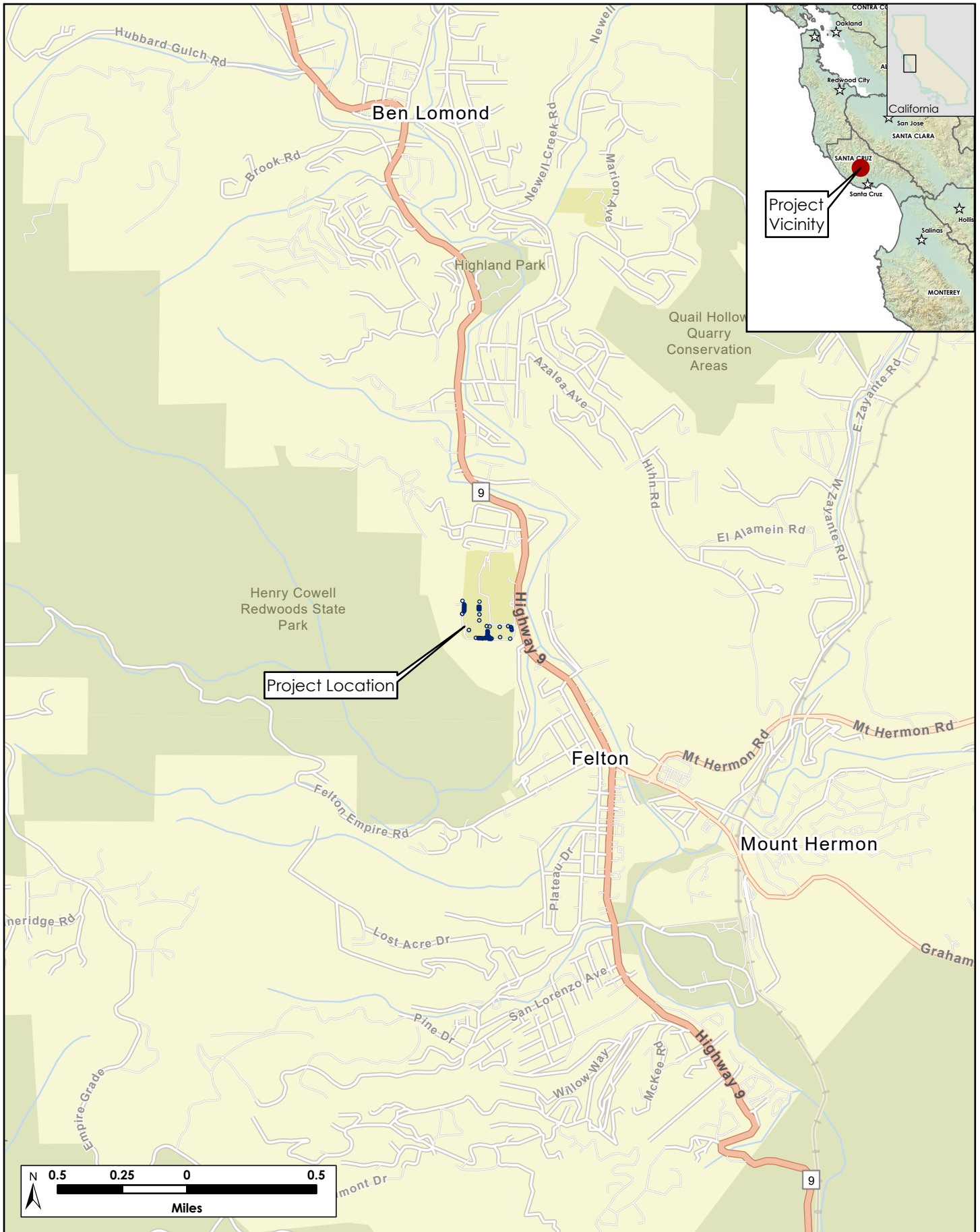
	boy's and girls' soccer (four games each), baseball and softball (four games each) concluding by 10:00 PM at the latest (during the school year only) <sup>1</sup>	announcements, warm-up music or similar uses without running commentary.
Sports Practices	Monday through Friday, concluding by 8:30 PM. Not during weekend nights unless under unusual circumstances approved by the Superintendent or designee (during the school year only)	No
Holiday Use	The stadium field lights will not be used on school holidays, or in the period of time between commencement ceremonies and the beginning of sports practice for the fall season <sup>2</sup>	No
Non-School Related Groups	The stadium field lights will not be used by Non-School Related Groups	No

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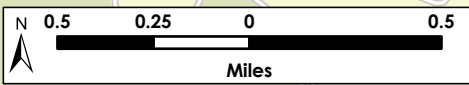
<sup>1</sup> Football competitions would typically end by 10:00 PM; all other competitions would typically end by 8:30 PM. Adequate lighting (non-competition level) would be maintained after games to allow for safe exiting of the field.

<sup>2</sup> First day of practice for fall sports is the beginning of August.

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**Figure 1. Vicinity Map**

San Lorenzo Valley Fields Master Plan  
 Biological Resources Report (4905-01)  
 April 2026



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**Figure 2. Master Plan Area**

San Lorenzo Valley Fields Master Plan  
Biological Resources Report (4905-01)

April 2026

## Section 2. Methods

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### 2.1 Background Review

Prior to conducting field work, H. T. Harvey & Associates ecologists reviewed the project description and site plan provided by David J. Powers & Associates through February 2025; aerial images (Google Inc. 2025); a USGS topographic map; a National Wetlands Inventory map (2025); National Resources Conservation Service (NRCS) soil survey maps (2025); the California Department of Fish and Wildlife's (CDFW's) California Natural Diversity Database (CNDDDB) (2025); and other relevant reports, scientific literature, and technical databases. For the purposes of this report, the *project vicinity* is defined as the area within a 5-mile radius surrounding the Master Plan area. In addition, we queried the CNDDDB (2025) for natural communities of special concern that occur on the project site, and we perused records of birds reported in nearby areas, such as at Henry Cowell Redwoods State Park--Fall Creek Unit and Felton Discovery Park, on eBird (Cornell Lab of Ornithology 2025) and on the Monterey-Bay-Birds List Serve (2025). Because all construction activities would take place in existing developed/landscaped areas with no potential for occurrence of special-status plants, no background review with respect to such plants needed to be performed,

### 2.2 Site Visit

H. T. Harvey & Associates wildlife ecologist Ben Pearl, M.S., conducted a reconnaissance-level survey of the Master Plan area on December 1, 2024. The purpose of the survey was to provide an impact assessment specific to the proposed construction of the project and operation of the field lights, as described above. Specifically, surveys were conducted to (1) assess existing biotic habitats and plant and animal communities in the Master Plan area, (2) assess the Master Plan area for its potential to support special-status species and their habitats, and (3) identify potential jurisdictional and sensitive habitats, such as waters of the U.S./state and riparian habitat. In addition, Ben also assessed the potential for the occurrence of sensitive species in adjacent areas that could be affected by the proposed lighting.

## Section 3. Regulatory Setting

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

### 3.1 Federal Regulations

#### 3.1.1 Clean Water Act

The Clean Water Act (CWA) functions to maintain and restore the physical, chemical, and biological integrity of waters of the U.S., which include, but are not limited to, tributaries to traditionally navigable waters currently or historically used for interstate or foreign commerce, and adjacent wetlands. Historically, in non-tidal waters, U.S. Army Corps of Engineers (USACE) jurisdiction extends to the ordinary high water (OHW) mark, which is defined in Title 33, Code of Federal Regulations, Part 328.3. If there are wetlands adjacent to channelized features, the limits of USACE jurisdiction extend beyond the OHW mark to the outer edges of the wetlands. In tidal waters, USACE jurisdiction extends to the landward extent of vegetation associated with salt or brackish water or the high tide line. The high tide line is defined in 33 Code of Federal Regulations Part 328.3 as “the line of intersection of the land with the water’s surface at the maximum height reached by a rising tide.” The May 25, 2023 U.S. Supreme Court decision in *Sackett v. Environmental Protection Agency* limited the definition of waters of the U.S. by including only wetlands that have a continuous surface connection with traditional navigable waters. On August 29, 2023, the U.S. Environmental Protection Agency and USACE issued a final implementing rule to amend the definition of waters of the U.S. to conform with the *Sackett* decision.

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

Project Applicability: The project site does not support wetland or aquatic habitats. The San Lorenzo River, a large river running generally north-to-south, is at its closest point to the Master Plan area approximately 250 feet off-site to the east. Fall Creek, a tributary to the San Lorenzo, also runs generally north-to-south and is located off-site to the southeast approximately 0.1 mile away at its closest point. Both the San Lorenzo River and Fall Creek are considered jurisdictional waters of the U.S. under the CWA, but no project activities are proposed within the bed and banks of these waters. As a result, a permit from the USACE would not be required for the project.

### 3.1.2 Rivers and Harbors Act

Section 10 of the Rivers and Harbors Act of 1899 prohibits the creation of any obstruction to the navigable capacity of waters of the U.S., including discharge of fill and the building of any wharfs, piers, jetties, and other structures without Congressional approval or authorization by the Chief of Engineers and Secretary of the Army (33 U.S.C. 403).

Navigable waters of the U.S., which are defined in 33 CFR, Part 329.4, include all waters subject to the ebb and flow of the tide, and/or those which are presently or have historically been used to transport commerce. The shoreward jurisdictional limit of tidal waters is further defined in 33 CFR, Part 329.12 as “the line on the shore reached by the plane of the mean (average) high water.” It is important to understand that the USACE does not regulate wetlands under Section 10, only the aquatic or open waters component of bay habitat, and that there is overlap between Section 10 jurisdiction and Section 404 jurisdiction. According to 33 CFR, Part 329.9, a waterbody that was once navigable in its natural or improved state retains its character as “navigable in law” even though it is not presently used for commerce as a result of changed conditions and/or the presence of obstructions. Historical Section 10 waters may occur behind levees in areas that are not currently exposed to tidal or muted-tidal influence, and meet the following criteria: (1) the area is presently at or below the mean high water line; (2) the area was historically at or below mean high water in its “unobstructed, natural state”; and (3) there is no evidence that the area was ever above mean high water.

As mentioned above, Section 404 of the CWA authorizes the USACE to issue permits to regulate the discharge of dredged or fill material into waters of the U.S. If a project also proposes to discharge dredged or fill material and/or introduce other potential obstructions in navigable waters of the U.S., a Letter of Permission authorizing these impacts must be obtained from the USACE under Section 10 of the Rivers and Harbors Act.

Project Applicability: No current or historical Section 10 Waters are present on or close to the project site, including in the San Lorenzo River or Fall Creek, located off-site to the east and southeast, respectively. Therefore, a Letter of Permission from the USACE is not required.

### 3.1.3 Federal Endangered Species Act

The Federal Endangered Species Act (FESA) protects federally listed wildlife species from harm or *take*, which is broadly defined as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct.” *Take* can also include habitat modification or degradation that directly results in death or injury of a listed wildlife species. An activity can be defined as *take* even if it is unintentional or accidental. Listed plant species are provided less protection than listed wildlife species. Listed plant species are legally protected from take under the FESA only if they occur on federal lands.

The U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service have jurisdiction over federally listed, threatened, and endangered species under FESA. The USFWS also maintains lists of proposed

and candidate species. Species on these lists are not legally protected under FESA, but may become listed in the near future and are often included in their review of a project.

Project Applicability: The December 2024 site visit determined that no federally listed plant species are present on the project site due to lack of suitable habitat. The monarch butterfly (*Danaus plexippus*), a candidate for listing under FESA, may occur on the project site as an occasional nonbreeding forager or dispersant, but it is not expected to breed on the project site or to be impacted substantively by the project. No additional federally listed, candidate, or proposed plant or animal species occur or potentially occur on the project site.

### **3.1.4 Federal Migratory Bird Treaty Act**

The federal Migratory Bird Treaty Act (MBTA), 16 U.S.C. Section 703, prohibits killing, possessing, or trading of migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. The MBTA protects whole birds, parts of birds, and bird eggs and nests, and it prohibits the possession of all nests of protected bird species whether they are active or inactive. An *active* nest is defined as having eggs or young, as described by the USFWS in its June 14, 2018 memorandum “Destruction and Relocation of Migratory Bird Nest Contents”. Nest starts (nests that are under construction and do not yet contain eggs) and inactive nests are not protected from destruction.

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

## **3.2 State Regulations**

### **3.2.1 Porter-Cologne Water Quality Control Act**

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

On April 2, 2019, the SWRCB adopted the *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State*. In these new guidelines, riparian habitats are not specifically described as waters of the state but instead as important buffer habitats to streams that do conform to the State Wetland Definition. The *Procedures* describe riparian habitat buffers as important resources that may both be included in required

mitigation packages for permits for impacts to waters of the state, as well as areas requiring permit authorization from the RWQCBs to impact.

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

Project Applicability: No waters of the state or riparian habitats regulated by the RWQCB are present on the project site. San Lorenzo River and Fall Creek located off-site to the east and southeast, respectively, are considered waters of the state, but no impacts to these streams will result from project activities. Therefore, a Section 401 permit or Waste Discharge Requirement from the RWQCB would not be required.

### **3.2.2 California Endangered Species Act**

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

Project Applicability: The December 2024 site visit determined that no state-listed plant species occur on the project site due to lack of suitable habitat. The mountain lion (*Puma concolor*), a threatened species under CESA, may occur on or adjacent to the site occasionally as a nonbreeder, but no direct impacts to individuals will result from the project.

### **3.2.3 Native Plant Protection Act**

The Native Plant Protection Act (NPPA), enacted in 1977, allows plants to be designated as rare or endangered by the California Fish and Game Commission (Fish and Game Code Sections 1900–1913). The NPPA includes prohibitions on the take of such plants, with exceptions for certain activities. A total of 64 species, subspecies, and varieties of plants are considered “rare” by the NPPA.

Project Applicability: The December 2024 site visit determined that no NPPA-designated rare plant species occur on the project site due to lack of suitable habitat.

### **3.2.4 California Environmental Quality Act**

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

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

The CDFW has produced three lists (amphibians and reptiles, birds, and mammals) of “species of special concern” that serve as “watch lists”. Species on these lists are of limited distribution or the extent of their habitats has been reduced substantially, such that threat to their populations may be imminent. Thus, their populations should be monitored. They may receive special attention during environmental review as potential rare species, but do not have specific statutory protection. All potentially rare or sensitive species, or habitats capable of supporting rare species, are considered for environmental review per the CEQA Section 15380(b). The CNPS, a non-governmental conservation organization, has developed CRPRs for plant species of concern in California in the CNPS Inventory of Rare and Endangered Plants (CNPS 2025). The CRPRs include lichens, vascular, and non-vascular plants, and are defined as follows:

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

The CRPRs are further described by the following threat code extensions:

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

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

Compliance with CEQA Guidelines Section 15065(a) requires consideration of natural communities of special concern, in addition to plant and wildlife species. Vegetation types of “special concern” are tracked in Rarefind (CNDDDB 2024). Further, the CDFW ranks sensitive vegetation alliances based on their global (G) and state (S) rankings analogous to those provided in the CNDDDB. Global rankings (G1–G5) of natural communities reflect the overall condition (rarity and endangerment) of a habitat throughout its range, whereas S rankings are a reflection of the condition of a habitat within California. If an alliance is marked as a G1–G3, all of the associations within it would also be of high priority. The CDFW provides the Vegetation Classification and Mapping Program’s (VegCAMP’s) currently accepted list of vegetation alliances and associations (CDFW 2024).

Project Applicability: All potential impacts on biological resources will be considered during CEQA review of the project in the context of this biological resources report. Project impacts are discussed in Section 6 below.

### **3.2.5 California Fish and Game Code**

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

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

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

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

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

Project Applicability: No riparian habitat regulated by the CDFW occurs on the project site. Both the San Lorenzo River and Fall Creek and associated riparian habitats located off-site to the east and southeast, respectively, are regulated by CDFW, but no impacts to riparian habitats along these waterways will result from activities under the project. Therefore, a CDFW LSAA would not be required for the project.

Most native bird, mammal, and other wildlife species that occur on the project site and in the immediate vicinity are protected under the California Fish and Game Code. Project impacts on these species are discussed in Section 6.

### **3.2.6 State Water Resources Control Board Stormwater Regulation**

Construction projects in California causing land disturbances less than 1 acre are not required to comply with state requirements to control the discharge of stormwater pollutants under the NPDES General Permit.

Nevertheless, the San Lorenzo Valley Unified School District has developed and will implement a Storm Water Pollution Prevention Plan (SWPPP) for the TK-12 Campus and maintenance facilities, which includes the Master Plan area. The SWPPP outlines best management practices (BMPs) to protect water quality, including on-site sediment control BMPs, silt fences, sediment traps, or barriers, temporary drainage swales to direct water flow, and hay bales or geotextile fabrics for slope stabilization, among other factors.

Project Applicability. The project will implement construction measures and BMPs to control and limit impacts to water quality, thus, construction activities would not result in detrimental water quality effects upon biological/regulated resources.

### **3.3 Local Regulations**

#### **3.3.1 Santa Cruz County Riparian Corridor and Wetlands Protection**

The purpose of the County's Code Chapter 16.30 is to minimize and to eliminate any development activities in the riparian corridor, preserve, protect, and restore riparian corridors for: protection of wildlife habitat; protection of water quality; protection of aquatic habitat; protection of open space, cultural, historical, archaeological and paleontological, and aesthetic values; transportation and storage of floodwaters; prevention of erosion; and to implement the policies of the General Plan and the Local Coastal Program Land Use Plan. The Code provides criteria for determining development buffers from riparian areas, with a maximum buffer of 50 feet from the riparian corridor. Sensitive habitat is defined as one of the following:

Project Applicability: The Master Plan area is located greater than 50 feet from the San Lorenzo River and Fall Creek riparian corridors and is therefore in compliance with the code.

#### **3.3.2 Santa Cruz County Sensitive Habitat Protection**

The purpose of the County's Code Chapter 16.32 is to minimize the disturbance of biotic communities which are rare or especially valuable because of their special nature or role in an ecosystem, and which could be easily disturbed or degraded by human activity; to protect and preserve these biotic resources for their genetic, scientific, and educational values; and to implement policies of the General Plan and the Local Coastal Program Land Use Plan. An area is defined as sensitive habitat if it is/has:

- Special biological significance as identified by the State Water Resources Control Board.
- Habitat for locally unique biotic species/communities including but not limited to: oak woodlands, coastal scrub, maritime chaparral, native rhododendrons and associated Elkgrass, indigenous Ponderosa Pine, indigenous Monterey Pine, mapped grassland in the Coastal Zone and sand parkland; and special forests including San Andreas Oak Woodlands, indigenous Ponderosa Pine, indigenous Monterey Pine and ancient forests.
- Adjacent to essential habitats of rare, endangered or threatened species.
- Habitat for species of special concern as listed by the California Department of Fish and Game in the special animals list, natural diversity database.

- Habitat for rare or endangered species which meet the definition of Section 15380 of the California Environmental Quality Act guidelines.
- Habitat for rare, endangered or threatened species as designated by the State Fish and Game Commission, United States Fish and Wildlife Service or California Native Plant Society.
- Nearshore reefs, rocky intertidal areas, seacaves, islets, offshore rocks, kelp beds, marine mammal hauling grounds, sandy beaches, shorebird roosting, resting and nesting areas, cliff nesting areas and marine, wildlife or educational/research reserves.
- Dune plant habitats.
- All lakes, wetlands, estuaries, lagoons, streams and rivers.
- Riparian corridors.

Project Applicability: The Master Plan will not disturb or impact sensitive habitats identified in the code.

### **3.3.3 Santa Cruz County Significant Tree Protection Ordinance**

According to the County’s Code Chapter 16.34, no person shall do, cause, permit, aid, abet, suffer, or furnish equipment or labor to remove, cut down, or trim more than one-third of the green foliage of, poison, or otherwise kill or destroy any significant tree as defined in this chapter within the Coastal Zone until a significant tree removal approval for the project has been obtained pursuant to Chapter 13.20 SCCC. Significant tree includes any tree, sprout clump, or group of trees:

- Within the urban services line or rural services line, any tree which is equal to or greater than 20 inches d.b.h. (approximately five feet in circumference); any sprout clump of five or more stems each of which is greater than 12 inches d.b.h. (approximately three feet in circumference); or any group consisting of five or more trees on one parcel, each of which is greater than 12 inches d.b.h. (approximately three feet in circumference).
- Outside the urban services line or rural services line, where visible from a scenic road, any beach, or within a designated scenic resource area, any tree which is equal to or greater than 40 inches d.b.h. (approximately 10 feet in circumference); any sprout clump of five or more stems, each of which is greater than 20 inches d.b.h. (approximately five feet in circumference); or, any group consisting of 10 or more trees on one parcel, each greater than 20 inches d.b.h. (approximately five feet in circumference).
- Any tree located in a sensitive habitat as defined in Chapter 16.32 SCCC.

Project Applicability: The Master Plan area is not located in the Coastal Zone. In addition, no trees are planned for removal within the Master Plan area.

### **3.3.4 Santa Cruz County Outdoor Lighting Regulations**

Title 13 Section 13.10.364 states that exterior lighting within Public and Community Facilities District is required to include cut-offs that prevent light from extending beyond the boundaries of the property.

In addition, Section 13.11.070 states that all site, building, security, and landscape lighting shall be directed onto the site and away from adjacent properties. Light sources shall not be visible from adjacent properties. Light sources can be shielded by landscaping, structures, fixture design, or other physical means.

Project Applicability: The project would be required to prevent light from extending beyond the property boundaries.

## Section 4. Environmental Setting

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### 4.1 General Project Area Description

The Master Plan area is located in the unincorporated community of Felton in Santa Cruz County, California (Figure 1). The climate in the project vicinity is coastal Mediterranean, with most rain falling in the winter and spring. Mild cool temperatures are common in the winter, and hot to mild temperatures are common in the summer. Climate conditions in the vicinity include a 30-year average of 49.23 inches of annual precipitation with a monthly average temperature range from 49.6°F to 67.8°F (PRISM Climate Group 2025). Elevations on the project site range from 326–374 feet above mean sea level (Google Inc. 2025). The NRCS has mapped two soil units on the project site: Elkhorn sandy loam 2 to 9 % slopes and Lompico-Felton complex 5 to 30% slopes (NRCS 2025). Elkhorn sandy loam makes up the majority of the Master Plan area, and is a well-drained soil found on alluvial fans or terraces, is derived from marine deposits, and is composed of sandy loam and sandy clay loam (NRCS 2025). Lompico-Felton complex is found in a smaller portion of the Plan area in the northeast corner, and is a well-drained soil found on mountain slopes or ridges; is derived from weathered sandstone, shale, siltstone, and/or mudstone; and is composed of loam, clay loam, sandy clay loam, extremely gravelly sandy clay loam, and bedrock (NRCS 2025).

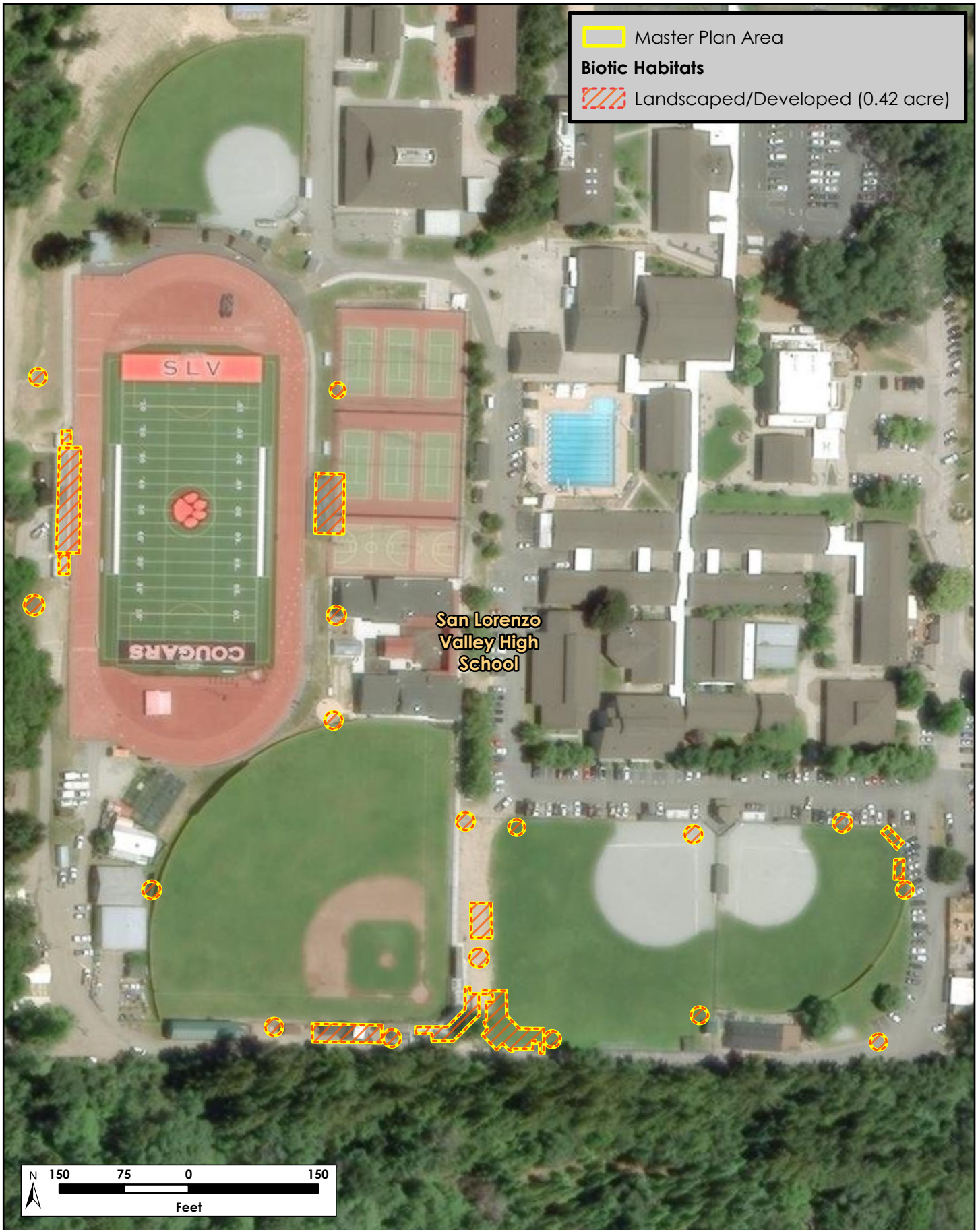
### 4.2 Biotic Habitats

The reconnaissance-level survey identified only one biotic habitat in the Master Plan area: landscaped/developed (Figure 3).

The entire 0.42-acre Master Plan area is developed or landscaped and supports the football field, baseball field, two softball fields, associated equipment sheds, and a bathroom building (Photo 1). The vegetation is very limited and comprises predominately of the turf grass on the softball and baseball fields. Scarce trees in the southern portion of the Master Plan area include native coast live oak (*Quercus agrifolia*) and white alder (*Alnus rhombifolia*), and vegetation growing on the margins of these fields include nonnative bristly ox-tongue (*Helminthotheca echioides*) and scarlet pimpernel (*Lysimachia arvensis*). The football field is made of artificial grass.



**Photo 1. Developed habitat on the project site includes turf grass, equipment sheds, and few trees.**



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**H. T. HARVEY & ASSOCIATES**

Ecological Consultants

**Figure 3. Biotic Habitats**

San Lorenzo Valley Fields Master Plan  
 Biological Resources Report (4905-01)

April 2026

Developed areas of the Master Plan area serve as wildlife habitat only in a very limited capacity, and most wildlife species that occur in these areas are tolerant of frequent human disturbances. Common wildlife species that are associated with surrounding developed or forested areas can occur in developed portions of the Master Plan area, including the nonnative house mouse (*Mus musculus*), black rat (*Rattus rattus*), and eastern fox squirrel (*Sciurus niger*) as well as the native western fence lizard (*Sceloporus occidentalis*) and striped skunk (*Mephitis mephitis*). Burrowing animals such as the California ground squirrel (*Otospermophilus beecheyi*) and Botta's pocket gopher (*Thomomys bottae*) are also present along the margins of the fields and at the base of some of the outbuildings. A variety of birds including American robin (*Turdus migratorius*), American crow (*Corvus brachyrhynchos*), western bluebird (*Sialia mexicana*), and great blue heron (*Ardea herodias*) may forage on the fields of the Master Plan area, and the buildings may be attractive to certain bird species in the area that often nest on human-made structures such as the black phoebe (*Sayornis nigricans*), Bewick's wren (*Thryomanes bewickii*), mourning dove (*Zenaidura macroura*), and house finch (*Haemorrhous mexicanus*). Birds of prey expected to move through or hunt in the Master Plan area include red-shouldered hawk (*Buteo lineatus*) and Cooper's hawk (*Astur cooperii*).

Common amphibians and reptiles from nearby forested areas such as the Pacific tree frog (*Pseudacris regilla*), California slender salamander (*Batrachoseps attenuatus*), and forest sharp-tailed snake (*Contia longicaudae*) may take refuge in leaf duff under the scattered oak trees in the Master Plan area. Furthermore, larger mammals moving to and from more suitable habitat patches may move across or forage in the fields, such as the native mountain lion, bobcat (*Lynx rufus*), coyote (*Canis latrans*), and black-tailed deer (*Odocoileus hemionus*) as well as the nonnative Virginia opossum (*Didelphis virginiana*). Bats such as California myotis (*Myotis californicus*) and long-eared myotis (*Myotis evotis*) may aerially forage for insects over the fields in the Master Plan area at night, but no suitable roost sites are present within the Master Plan area.

### 4.3 Adjacent Habitat Areas

**Mixed Redwood Forest.** Forested habitat on Campus property and an adjacent residential property is located immediately adjacent to the Master Plan area to the west and south. This habitat is characterized predominantly by coast redwood as well as Douglas-fir (*Pseudotsuga menziesii*), coast live oak, and tanoak (*Notholithocarpus densiflorus*). The understory of this habitat typically consists of leaf duff; ferns such as western sword fern (*Polystichum munitum*) and western maidenhair fern (*Adiantum aleuticum*); occasional shrubs such as evergreen huckleberry (*Vaccinium ovatum*), poison oak (*Toxicodendron diversilobum*), and wartleaf ceanothus (*Ceanothus papillosus*); and herbaceous natives such as redwood sorrel (*Oxalis oregana*), redwood violet (*Viola sempervirens*), and Pacific trillium (*Trillium ovatum*). Invertebrates found in this habitat include the California sister (*Adelpha californica*), Ceanothus silk moth (*Hyalophora euryalus*), slender banana slug (*Ariolimax dolichophallus*), and San Lorenzo shoulderband snail (*Helminthoglypta exarata*). The forest sharp-tailed snake, a slug-eating specialist, can also be found here.

Forests dominated by redwoods typically support low diversity of bird communities. However, the oaks and other hardwoods found among the redwoods in the vicinity support numerous species in addition to those typical of redwood forests and other listed above, including Steller's jay (*Cyanocitta stelleri*), common raven (*Corvus*

*corax*), pileated woodpecker (*Dryocopus pileatus*), varied thrush (*Ixoreus naevius*), band-tailed pigeon (*Patagioenas fasciata*), pygmy nuthatch (*Sitta pygmaea*), great-horned owl (*Bubo virginianus*), and dark-eyed junco (*Junco hyemalis*). Redwood forest habitat provides suitable foraging and breeding habitat for many of the bird species listed above, as well as mammals such as mountain lion, bobcat, striped skunk, black-tailed deer, western grey squirrel (*Sciurus griseus*), and American shrewmole (*Neurotrichus gibbsii*).

**Riparian Woodland.** The San Lorenzo River and Fall Creek are located 250 feet east and 0.1 mile southeast of the Master Plan area, respectively. Riparian woodland habitat along these waterways is dominated by coast redwood, big-leaf maple (*Acer macrophyllum*), coast live oak, and tanoak rooted above and below the tops of banks. The understory of this habitat typically consists of leaf duff and sparse nonnative annual grasses, with occasional native species such as wartleaf ceanothus (*Ceanothus papillosus*), thimble berry (*Rubus parviflorus*), and western skunk cabbage (*Lysichiton americanus*).

Riparian habitats in California generally support exceptionally rich animal communities and contribute disproportionately to landscape-level species diversity. The presence of seasonal water and abundant invertebrates provide foraging opportunities for many species, and the diverse habitat structure provides cover and nesting opportunities. Fish species found in these waters include native Sacramento sucker (*Catostomus occidentalis*), federally threatened steelhead, and nonnative largemouth bass (*Micropterus nigricans*) and mosquito fish (*Gambusia affinis*).



**Photo 2. Mixed redwood forest adjacent to the Master Plan area.**

Leaf litter provides cover for amphibians such as two California species of special concern – the Santa Cruz black salamander (*Aneides niger*) and California giant salamander (*Dicamptodon ensatus*) – and other native species such as ensatina (*Ensatina eschscholtzii*) and California slender salamander. Several reptiles may also occur here, including the northern alligator lizard (*Elgaria coerulea*), western skink (*Eumeces skiltonianus*), and ring-necked snake (*Elgaria multicarinata*). Mammals such as the California vole (*Microtus californica*), brush rabbit (*Sylvilagus bachmani*), and San Francisco dusky-footed woodrat (*Neotoma fuscipes*) provide a prey base for mesopredators that forage here, such as the bobcat and coyote. Several species of bats, including the hoary bat (*Lasiurus cinereus*), Mexican free-tailed bat (*Tadarida brasiliensis*), and big brown bat (*Eptesicus fuscus*) forage for insects over stream habitats. The mature trees in this habitat may provide potential roosting habitat for various bat species in cavities, tree bark, or branches.

In addition to fish, amphibians, reptiles, and mammals, the reach of Fall Creek and the San Lorenzo River adjacent to the Master Plan area provides suitable foraging and breeding habitat for many of the bird species listed above, as well as belted kingfisher (*Megaceryle alcyon*), American dipper (*Cinclus mexicanus*), pacific wren (*Troglodytes pacificus*) and others. Raptors such as red-shouldered hawks (*Buteo lineatus*) and Cooper’s hawks nest

within riparian corridors and forage there, as well as in adjacent habitats. Bald eagles (*Haliaeetus leucocephalus*) and osprey (*Pandion haliaetus*) have also been observed hunting in San Lorenzo River waters (Cornell Lab of Ornithology 2025; iNaturalist 2025). Riparian habitats are also used heavily by migrant passerines and wintering birds.

## 4.4 Wildlife Movement

Wildlife movement within and in the vicinity of the Master Plan area takes many forms and is different for the various suites of species associated with these lands. Bird and bat species move readily over the landscape in the project vicinity, foraging over and within both natural lands and landscaped areas. Mammals of different species move within their home ranges, but also disperse between patches of habitat. Generally, reptiles and amphibians similarly settle within home ranges, sometimes moving to central breeding areas, upland refugia, or hibernacula in a predictable manner, but also dispersing to new areas. Some species, especially among the birds and bats, are migratory, moving into or through the vicinity during specific seasons. Aside from bats, there are no other mammal species in the vicinity of the site that are truly migratory. However, the young of many mammal species disperse from their natal home ranges, sometimes moving over relatively long distances in search of new areas in which to establish.

Movement corridors are segments of habitat that provide linkage for wildlife through the mosaic of suitable and unsuitable habitat types found within a landscape while also providing cover. On a broader level, corridors also function as paths along which wide-ranging animals can travel, populations can move in response to environmental changes and natural disasters, and genetic interchange can occur. In California, environmental corridors often consist of riparian areas along streams, rivers, or other natural features.

The Master Plan area—and the campus as a whole—is flanked on most sides by natural, forested areas but is heavily developed. There are no well-defined or important movement corridors for mammals, amphibians, or reptiles on or through the Master Plan area itself due to the existing development, lack of cover, and presence of impediments to movement. However, wildlife moves through the heavily forested areas west of the Master Plan area, which provides a broad area of connectivity between the Pacific Ocean/Monterey Bay coastline and the vast Santa Cruz Mountains to the north and northwest. In addition, fish and wildlife move along the riparian corridors of Fall Creek (0.1-mile to the southeast, within Henry Cowell Redwoods State Park) and the San Lorenzo River (250 feet to the east). Therefore, although adjacent habitats provide important areas of wildlife movement and habitat connectivity, the footprint of the Master Plan area does not.

## Section 5. Special-Status Species and Sensitive Habitats

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CEQA requires assessment of the effects of a project on species that are protected by state, federal, or local governments as “threatened, rare, or endangered”; such species are typically described as “special-status species”. For the purpose of the environmental review of the project, special-status species have been defined as described below. Impacts on these species are regulated by some of the federal, state, and local laws and ordinances described in Section 3 above.

For purposes of this analysis, “special-status” plants are considered plant species that meet one or more of the following criteria:

- Listed under FESA as threatened, endangered, proposed threatened, proposed endangered, or a candidate species.
- Listed under CESA as threatened, endangered, rare, or a candidate species.
- Listed by the CNPS as CRPR 1A, 1B, 2, 3, or 4.

For purposes of this analysis, “special-status” animals are considered animal species that meet one or more of the following criteria:

- Listed under FESA as threatened, endangered, proposed threatened, proposed endangered, or a candidate species.
- Listed under CESA as threatened, endangered, or a candidate threatened or endangered species.
- Designated by the CDFW as a California species of special concern.
- Listed in the California Fish and Game Code as fully protected species (fully protected birds are provided in Section 3511, mammals in Section 4700, reptiles and amphibians in Section 5050, and fish in Section 5515).

Information concerning threatened, endangered, and other special-status species that potentially occur on the project site was collected from several sources and reviewed by H. T. Harvey & Associates biologists as described in Section 2.1 above. Figure 4 depicts CNDDDB records of special-status plant species in the general vicinity of the project site and Figure 5 depicts CNDDDB records of special-status animal species. These generalized maps show areas where special-status species are known to occur or have occurred historically.





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**Figure 5. CNDDB-Mapped Records of Special-Status Animals**

## 5.1 Special-Status Plant Species

No special-status plant species were determined to have any potential to occur on the project site because the Master Plan area is occupied entirely by landscaped/developed habitat that does not provide suitable habitat for such plants.

## 5.2 Special-Status Animal Species

The legal status and likelihood of occurrence in the Master Plan area of special-status animal species known to occur, or potentially occurring, in the surrounding region are presented in Table 2. Most of the special-status species listed in Table 2 are not expected to occur in the Master Plan area because it lacks suitable habitat, is outside the known range of the species, and/or is isolated from the nearest known extant populations by development or otherwise unsuitable habitat.

The following special-status species that are present in specialized habitats in the Santa Cruz Mountains, or that occurred in or near the Santa Cruz Mountains historically but are no longer present, are absent from the Master Plan area due to a lack of suitable habitat and/or isolation of the site from populations by urbanization: the Smith's blue butterfly (*Euphilotes enoptes smithi*), Crotch's bumble bee (*Bombus crotchii*), western bumble bee (*Bombus occidentalis*), Ohlone tiger beetle (*Cicindela ohlone*), Mount Hermon June beetle (*Polyphylla barbata*), Zayante band-winged grasshopper (*Trimerotropis infantilis*), tidewater goby (*Eucyclogobius newberryi*), northwestern pond turtle (*Actinemys marmorata*), California tiger salamander (*Ambystoma californiense*), Santa Cruz long-toed salamander (*Ambystoma macrodactylum croceum*), red-bellied newt (*Taricha rivularis*), San Francisco garter snake (*Thamnophis sirtalis tetrataenia*), California red-legged frog (*Rana draytonii*), foothill yellow-legged frog (*Rana boylei*), marbled murrelet (*Brachyramphus marmoratus*), yellow rail (*Coturnicops noveboracensis*), burrowing owl (*Athene cunicularia*), yellow warbler (*Setophaga petechia*), grasshopper sparrow (*Ammodramus savannarum*), loggerhead shrike (*Lanius ludovicianus*), American badger (*Taxidea taxus*), and ringtail (*Bassariscus astutus*). While bald eagles (*Haliaeetus leucocephalus*) may fly over the project site at times, none are expected to nest or forage on or close to the Master Plan area.

No aquatic habitats to support special-status fish species are present in the Master Plan area. San Lorenzo River and Fall Creek, located 250 feet to the east and 0.1 mile to the southeast, respectively, supports anadromous special-status fish species, including the federally threatened Central California Coast steelhead (*Oncorhynchus mykiss*) and Pacific lamprey (*Entosphenus tridentatus*), a California species of special concern. These streams may also potentially support the federally and state threatened Central California Coast coho salmon (*Oncorhynchus kisutch*).

The mountain lion (*Puma concolor*), listed as threatened under CESA; the monarch butterfly (*Danaus plexippus*), which is proposed for listing under FESA; the western red bat (*Lasiurus blossevillei*), pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), and nesting Vaux's swift (*Chaetura vauxi*), which are California species of special concern; and the state protected golden eagle (*Aquila chrysaetos*) and white-tailed kite (*Elanus leucurus*) may also forage in the Master Plan area. As discussed in Table 2, these species are not expected to den,

roost, or breed on or immediately adjacent to the Master Plan area due to a lack of suitable habitat, and they will be affected very little, if at all, by the proposed project.

The California giant salamander (*Dicamptodon ensatus*), Santa Cruz black salamander (*Aneides niger*), olive-sided flycatcher (*Contopus cooperi*), and San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*) are addressed in greater detail in this report because these species can potentially breed or occur on or immediately adjacent to the project site and/or may be significantly impacted by the proposed project in the absence of avoidance and minimization measures (see Section 6 *Impacts and Mitigation Measures* below).

**Table 2. Special-Status Animal Species, Their Status, and Potential for Occurrence in the Master Plan Area.**

Name	*Status	Habitat	Potential for Occurrence in the Master Plan Area
<b>Federal or State Endangered, Threatened, or Candidate Species</b>			
Monarch butterfly ( <i>Danaus plexippus</i> )	FPT	Requires milkweeds ( <i>Asclepias</i> spp.) for egg-laying and larval development, but adults obtain nectar from a wide variety of flowering plants in many habitats. Individuals congregate in winter roosts, primarily in Mexico and in widely scattered locations on the central and southern California coast.	<b>May be Present as Nonbreeder.</b> The monarch butterfly occurs throughout the region primarily as a migrant. No milkweeds are expected to occur within the developed/landscaped areas in which project construction will occur, so the species would not breed on the site. Small numbers of individual monarchs may forage on the project site, especially during spring and fall migration. However, the site does not provide high-quality foraging habitat for this species. While ostensibly suitable overwintering habitat for monarchs (i.e., coast redwood [ <i>Sequoia sempervirens</i> ] trees) is present in large redwoods adjacent to the site, no current or historical overwintering sites are known in Santa Cruz County as far inland as the Master Plan area; the nearest known overwintering aggregation location is 6 miles to the south, at the end of Highland Avenue in Santa Cruz (Xerces Society 2025).
Smith's blue butterfly ( <i>Euphilotes enoptes smithi</i> )	FE	Inland and coastal sand dunes, coastal scrub, grasslands, and coastal mountains (USFWS 2020); dependent upon buckwheat ( <i>Eriogonum</i> ), larval host plant and nectar source (Arnold 1983; Shields and Reveal 1988). Flight season mid-June to mid Sept (USFWS 2020)	<b>Absent.</b> Smith's blue occurs in scattered colonies from Monterey County to San Luis Obispo County (Arnold 1983; USFWS 2020). It is not known to occur in the Santa Cruz Mountains, and no suitable host plants or habitat were observed on or near the Master Plan area. Specimens collected in Santa Cruz County and labelled as Smith's blue have since been determined to be intergrades between Smith's and Tilden's blue ( <i>E. e. tildeni</i> ), and thus Santa Cruz County is no longer considered within the historical distribution (USFWS 1986, p. 1–3). This species is non-migratory and dispersing adults have only been observed traveling as far as 1110m, or less than 3/4-mile (USFWS 2020). Although flights could potentially be longer than what has been recorded (Arnold 2020 as cited in USFWS 2020), the Master Plan area is over 26 miles away from the northernmost known population (straight-line distance). Determined to be absent.

Name	*Status	Habitat	Potential for Occurrence in the Master Plan Area
Crotch's bumble bee ( <i>Bombus crotchii</i> )	SC	Open grassland and scrub habitats.	<b>Absent.</b> Although this species was historically found throughout the southern two-thirds of California, population declines and range contractions (25% relative to its historical range) have made this species very scarce in the region (CDFW 2019). The closest extant occurrence of the species is approximately 13 miles to the east near Loma Prieta Peak. No suitable grassland or scrub habitat to provide nesting and foraging habitat for this species is present on or adjacent to the Master Plan area, and no high-quality floral resources to attract this species to the site are present. Therefore, this species is determined to be absent.
Western bumble bee ( <i>Bombus occidentalis</i> )	SC	Occurs in a variety of grassland, scrub, and open woodland habitats	<b>Absent.</b> Although the species was historically found throughout much of central and northern California, including the project vicinity, it has been extirpated from much of its former range, and there are no recent records from the Santa Cruz Mountains or nearby areas (CDFW 2019, CNDDDB 2025, Bumble Bee Watch 2025, iNaturalist 2025). Therefore, this species is determined absent from the project site.
Ohlone tiger beetle ( <i>Cicindela ohlone</i> )	FE	Coastal terrace prairie	<b>Absent.</b> The Ohlone tiger beetle is endemic to Santa Cruz County, California, where it is known only from coastal terraces supporting remnant patches of native grassland habitat. No suitable habitat is present in the Master Plan area or nearby. Determined to be absent.
Mount Hermon June beetle ( <i>Polyphylla barbata</i> )	FE	Zayante Sandhill soils, characterized by loose, dry, sandy soil, dominated by "sand specialty" flora (McGraw 2004); associates with silverleaf manzanita ( <i>Arctostaphylos silvicola</i> ) and ponderosa pine ( <i>Pinus ponderosa</i> ; Arnold 2004); Flight season generally May through mid-September (USFWS 2021)	<b>Absent.</b> Suitable habitat for the Mount Hermon June beetle consists of land within the Zayante Sand Hills of Santa Cruz County, California (USFWS 2021). They have a generalist diet and can be found beyond the habitat types typical of this species, such as oak woodland, mixed hardwood forest, and other areas in or adjacent to Zayante soils, including degraded and developed areas (USFWS 2021). However, females are flightless, and male activity is limited to crepuscular activity over a 12 week period, during which time they fly low over the ground searching for females (Arnold 2004). Therefore, it is unlikely that this species would disperse from the nearest known occupied habitat approximately 1 mile away, across unsuitable habitat, including developed neighborhoods and Highway 9, to reach the Master Plan area. Further, the developed/landscaped project site does not provide suitable habitat.

Name	*Status	Habitat	Potential for Occurrence in the Master Plan Area
Zayante band-winged grasshopper ( <i>Trimerotropis infantilis</i> )	FE	Open sand parkland habitat within the Zayante Sand Hills, characterized by sparse stands of ponderosa pine with a diverse herbaceous understory and little to no shrub layer (McGraw 2004); diet consists of primarily golden aster ( <i>Heterotheca sessiliflora</i> ) and silver lupine ( <i>Lupinus albus</i> ; Arnold 2004). Flight season is June – November (USFWS 2021)	<b>Absent.</b> Critical habitat for the Zayante band-winged grasshopper consists of 10,560 acres of land within the Zayante Sand Hills of Santa Cruz County, California; although much of the area designated includes unsuitable habitat or altered lands that do not support the grasshopper (Arnold 2004). The Master Plan area falls within this critical habitat, and although no Zayante soils are found in the Plan area (NRCS 2025), this grasshopper can be found on transitional soils including the Lompico complex found in the Master Plan area (USFWS 2021). However, this species is known to make only short flights of 1-2 meters, and tagging studies have shown that the majority of individuals remained on the same transect interval as the previous capture (Arnold 2002). Therefore, it is unlikely that this species would disperse from the nearest known occupied habitat approximately 1 mile away, across unsuitable habitat, including developed neighborhoods and Highway 9, to reach the Master Plan area. Further, the developed/landscaped project site does not provide suitable habitat.
Central California Coast steelhead ( <i>Oncorhynchus mykiss</i> )	FT	Cool streams with suitable spawning habitat and conditions allowing migration between spawning and marine habitats	<b>Absent.</b> There is no aquatic habitat for steelhead in the Master Plan area. Occurs in the open waters of Monterey Bay and is known to have occurred in Fall Creek and the San Lorenzo River. While no passage barriers are present on the San Lorenzo River in the vicinity or downstream of the Master Plan area, a log jam approximately 1 mile upstream of where Fall Creek meets the San Lorenzo can preclude the passage of anadromous fish farther upstream of this tributary. However, fish may still be present in Fall Creek 0.25-mile southwest and in the San Lorenzo River 250 ft east of the Master Plan area, and both waters are mapped for steelhead in CNDDDB (2025).
Central California Coast coho salmon ( <i>Oncorhynchus kisutch</i> )	FT, ST	Open ocean, estuaries, and rivers	<b>Absent.</b> There is no aquatic habitat for salmon in the Master Plan area. Central California Coast coho salmon occurred historically in the San Lorenzo watershed, but the San Lorenzo River and its tributaries no longer support natural occurrences of coho (CNDDDB 2025) and are likely extirpated (Santa Cruz County 2004). However, the San Lorenzo River and Fall Creek are considered essential fish habitat for coho, and there are recent efforts to reintroduce the species to the watershed (MBSTP 2025). Thus, fish may still be present in Fall Creek and San Lorenzo River 0.1-mile southeast and 250 ft east of the Master Plan area, respectively, and both waters are mapped for coho salmon in CNDDDB (2025).

Name	*Status	Habitat	Potential for Occurrence in the Master Plan Area
Tidewater goby ( <i>Eucyclogobius newberryi</i> )	FE	Brackish water habitats along the coast, in still but not stagnant water with high oxygen levels; breeding typically occurs on sandy substrates but can be found on rocky, mud, and silt substrates	<b>Absent.</b> No aquatic habitat for tidewater goby is present in the Master Plan area. This species can be found in the lower mouths of creeks along the Pacific Coast, including downstream reaches of the San Lorenzo River. However, the reaches of the San Lorenzo River nearest the Master Plan area and its nearby tributary, Fall Creek, are over 7.5 miles (straight-line distance) upstream; gobies are rarely found in such freshwater habitats (USFWS 2005) and is therefore not considered suitable habitat. Determined to be absent.
California tiger salamander ( <i>Ambystoma californiense</i> )	FT, ST	Vernal or temporary pools in annual grasslands or open woodlands. Adults live terrestrially in small mammal burrows.	<b>Absent.</b> The California tiger salamander occurs in elevations as high as 1680 ft in the Sierra Nevada and 3618 ft in Alameda County, but it is not known to occur in the Santa Cruz Mountains and within Santa Cruz County is generally limited to the lowland grasslands in the southern end of the county (CNDDDB 2025, Hansen and Shedd 2025). The closest extant population is located in the vicinity of Buena Vista and Ellicott Ponds in Watsonville, approximately 16 miles to the southeast (CNDDDB 2025). All of these occurrences are located far beyond the known dispersal distance of the species from the Master Plan Area and are separated from the project site by extensive mountainous terrain and busy roadways. Furthermore, no suitable breeding pools were observed on site, and while there are potentially suitable burrows located around the periphery of the sports fields, the lack of connection to any breeding locations precludes its occurrence. Therefore, this species is determined to be absent.
Santa Cruz long-toed salamander ( <i>Ambystoma macrodactylum croceum</i> )	FE, SE	Wet meadows near sea level; aquatic larvae prefer shallow (<12 inches) water, using clumps of vegetation or debris for cover; adults use mammal burrows or root tunnels of riparian plants.	<b>Absent.</b> The Santa Cruz long-toed salamander occurs in Santa Cruz County in the coastal lowlands of Aptos and Watsonville, over 12 miles away from the Master Plan area. No suitable aquatic breeding habitat for this species is present in the Master Plan area, and the area is well beyond reach for adults or juveniles dispersing or seeking upland refugia. Determined to be absent.

Name	*Status	Habitat	Potential for Occurrence in the Master Plan Area
California red-legged frog ( <i>Rana draytonii</i> )	FT, CSSC	Streams, freshwater pools, and ponds with emergent or overhanging vegetation	<b>Absent.</b> No suitable aquatic breeding habitat for California red-legged frogs is present in the Master Plan area, and there are no known populations associated with the nearby Fall Creek or San Lorenzo River, both of which experience very high seasonal flows, a condition that may contribute to the lack of observations (CNDDDB 2025, Hansen & Shedd 2025). Known populations occur along coastal streams such as Liddell Creek 4.6 miles to the southwest and San Vicente Creek 5.1 miles to the west (CNDDDB 2025), and the nearest record is an observation of one adult observed in 2004 in Bull Creek, less than 1 mile south of the Master Plan area. Bull Creek is a tributary of the San Lorenzo River, located 250 feet east of the Master Plan area. The nearby Fall Creek and San Lorenzo River are too fast-flowing and shallow, and lacks suitable pools and submergent vegetation, to provide suitable breeding habitat for this species. Thus, this species is determined to be absent.
Foothill yellow-legged frog ( <i>Rana boylei</i> )	FT, SE	Streams, freshwater pools, and ponds with emergent or overhanging vegetation	<b>Absent.</b> No suitable aquatic habitat is present in the Master Plan area. Historic collection records of this species from the 1930-50s are present from the San Lorenzo River, Fall Creek, and other streams in the vicinity, and the closest recent record is an individual found in 2018 at the base of the Newell Creek Dam 2.7 miles to the north. However, this species is not known to occur below this dam within the San Lorenzo River watershed, and the closest known population is located in the Soquel Creek watershed 6.5 miles east (CNDDDB 2025). Due to the intervening distance between current populations of this species and the Master Plan area, it is unlikely that this species would be found in nearby waters. Therefore, this species is considered absent.
San Francisco garter snake ( <i>Thamnophis sirtalis tetrataenia</i> )	FE, SE, SP	Occurs in a variety of habitats, including riparian areas; requires burrows for hibernation and frogs as a prey base.	<b>Absent.</b> The San Francisco garter snake occurs on the San Francisco Peninsula from just north of the San Francisco–San Mateo County line south to approximately the San Mateo–Santa Cruz County line (Barry 1994). Thus, the Master Plan area is outside the known range of the species and the species is determined to be absent.

Name	*Status	Habitat	Potential for Occurrence in the Master Plan Area
Northwestern pond turtle ( <i>Actinemys marmorata</i> )	FPT, CSSC	Permanent or nearly permanent water in a variety of habitats with abundant emergent or riparian vegetation. Females lay eggs in upland habitats, in clay or silty soils in unshaded (often south-facing) areas (Jennings and Hayes 1994).	<b>Absent.</b> Known to occur in the Master Plan area vicinity at Quail Hollow Ranch located 1.8 miles northeast and along the San Lorenzo River, the closest observation being found 0.6 miles downstream of the Master Plan area (CNDDDB 2025; iNaturalist 2025). Ostensibly suitable aquatic dispersal and foraging habitat is present in the San Lorenzo River and Fall Creek, 250 feet east and 0.1 mile southeast of the Master Plan area, respectively, and potentially suitable nesting habitat is present in the more open sandy areas of the sports fields. Female pond turtles typically move up to 325 feet into upland areas for nesting (CDFW 2000), and dispersing males typically move less than 0.3 miles, though one dispersing male pond turtle in Alameda County was recorded travelling over 1 mile on land before its track was lost (Stein 2025). The closest occurrences of the species are separated from the project site by urban development and Highway 9, which would prevent them from dispersing into the Master Plan area.
Marbled murrelet ( <i>Brachyramphus marmoratus</i> )	FT, SE	Lower montane coniferous, old growth, and/or redwood forests. In California, nests built predominantly in mature douglas-fir ( <i>Pseudotsuga menziesii</i> ) and coast redwood forests. Locally, restricted to the western slopes of the Santa Cruz Mountains (Halbert and Singer 2017)	<b>Absent.</b> Murrelets typically nest within 37 miles of the coast and have been recorded as far as 52 miles inland (USFWS 2024). Locally, this species typically nests in the old growth forests in the Big Basin watershed. No suitable nesting habitat is present in the Master Plan area. The nearest known nesting location for this species is approximately 11 miles northwest of the Master Plan area in Big Basin State Park. This species has been observed in the Fall Creek Unit of Henry Cowell Redwoods State Park (Cornell Lab of Ornithology 2025), approximately 2.0 miles from the Master Plan area, however the majority of this area was previously logged in the 1800's and early 1900's and is second-growth forest, and thus does not provide suitable nesting habitat. Determined to be absent.
Bald eagle ( <i>Haliaeetus leucocephalus</i> )	SE, SP	Occurs mainly along seacoasts, rivers, and lakes; nests in tall trees or in cliffs, occasionally on electrical towers; feeds mostly on fish and waterfowl	<b>Absent.</b> Scattered records of bald eagles can be found in the Master Plan vicinity, but these occurrences are typically individuals soaring high above (Cornell Lab of Ornithology 2025). No lakes are present on or near the project site to provide foraging habitat for this species. Individuals can occasionally be seen on the nearby San Lorenzo River (Cornell Lab of Ornithology 2025; iNaturalist 2025), though this seems to be infrequent. They are not expected to nest in the Master Plan area due to the lack of foraging habitat nearby. Determined to be absent.

Name	*Status	Habitat	Potential for Occurrence in the Master Plan Area
Mountain lion (Southern California/Central Coast ESU) ( <i>Puma concolor</i> )	ST	Has a large home range size and occurs in a variety of habitats. Natal dens are typically located in remote, rugged terrain far from human activity. May occasionally occur in areas near human development, especially during dispersal	<b>May be Present as Nonbreeder.</b> In the project region, there are verified sightings reported to the Bay Area Puma Project (BAPP 2025) and numerous unpublished reports. In addition, telemetry data from mountain lions collared by the Santa Cruz Puma Project have documented five females and six males home range to include the Master Plan Area, and an additional two females and four males home range were very near to the Master Plan area (SCPP 2025). This species occurs widely, though at low densities, throughout the Santa Cruz Mountains, and may disperse into lowland/valley floor areas. Mountain lions are not expected to regularly use the Master Plan area or establish a den on or near the site due to high levels of human activity and a lack of suitable denning habitat, but individuals may occur on the site as rare dispersants due to the site's location near the wildlife-urban interface (i.e., in immediately adjacent undeveloped forested lands contiguous with Henry Cowell Redwoods State Park).
<b>California Species of Special Concern</b>			
Pacific lamprey ( <i>Entosphenus tridentatus</i> )	CSSC	Occupies anadromous habitat in large streams entering the San Francisco and Monterey Bays. Spawns in cool (shaded), clear, slow-moving rivers and streams supporting gravel, silt, and sand substrates (Moyle et al. 2015)	<b>Absent.</b> There is no aquatic habitat for lamprey in the Master Plan area. This species occurs as adults in the open waters of Monterey Bay and is known to occur in the San Lorenzo River (iNaturalist 2025), where adults breed and young lamprey (ammocoetes) develop for many years before travelling downstream and out to the ocean (Moyle et al. 2015). Lamprey may be present in Fall Creek, approximately 0.1-mile south, and in the San Lorenzo River, approximately 250 ft east, of the Master Plan area.
Red-bellied newt ( <i>Taricha rivularis</i> )	CSSC	Coastal drainages in forested habitats; juveniles generally underground, adults active at surface in moist environments; breed in streams with moderate flow and clean, rocky substrate.	<b>Absent.</b> No suitable breeding habitat is present in the Master Plan area. The typical range for this species is Sonoma County north to Humboldt County, but one isolated southern population exists in Santa Clara County, over 16 miles north of the Master Plan area. Furthermore, no records are known from the Master Plan vicinity (CNDDDB 2025, iNaturalist 2025), and it is outside typical range for this species. Determined to be absent.

Name	*Status	Habitat	Potential for Occurrence in the Master Plan Area
California giant salamander ( <i>Dicamptodon ensatus</i> )	CSSC	Adults are found in wet forests under rocks and logs near streams. Uses cold, clear streams for breeding	<b>May be Present as Nonbreeder.</b> California giant salamanders are known to occur in the Santa Cruz Mountains, and in project vicinity in the mixed redwood forest surrounding the Master Plan area as close as 0.5 mile to the southwest along Fall Creek (CNDDDB 2025). Suitable aquatic habitat is present in Fall Creek, and vegetative debris in the riparian woodland along the creek provides upland refugial habitat. Aquatic breeding habitat and riparian nonbreeding habitat to support this species are absent from the Master Plan area. However, small numbers of individuals from nearby locations along Fall Creek or in the surrounding residential hills may disperse across the site on occasion, especially in wet conditions such as a rain event.
Santa Cruz black salamander ( <i>Aneides niger</i> )	CSSC	Mixed deciduous and coniferous woodlands and coastal grasslands. Adults found under rocks, talus, and moist woody debris	<b>May be Present as Nonbreeder.</b> Occurs in the Santa Cruz Mountains, and in the project vicinity, Henry Cowell Redwoods State Park and along the San Lorenzo River (CNDDDB 2025, iNaturalist 2025). This species is terrestrial breeder, with females laying eggs in moist cavities underground. No suitable breeding or foraging habitat (i.e. woodlands near water) is present on site. However, small numbers of individuals from nearby locations along Fall Creek or in the surrounding forest may disperse across the site on occasion, especially in wet conditions such as a rain event.
Yellow rail ( <i>Coturnicops noveboracensis</i> )	CSSC	Freshwater marshes, wet meadows, and/or seeps	<b>Absent.</b> No suitable breeding or wintering habitat is present in the Master Plan or in immediately adjacent areas. Very little information is available on the historic and current range of this species, but it is generally known as a rare winter visitor along the California coast and San Francisco Bay region and apparently does not breed in the region (Sterling 2008). There is one record on CNDDDB within a 30-mile circle in the general area of Graham Hill Rd, within which the Master Plan area does fall; however, this record is from historical collections in 1903 and 1905, and the species has not been recorded in the vicinity since. Determined to be absent.
Burrowing owl ( <i>Athene cunicularia</i> )	CSSC	Nests and roosts in open grasslands and ruderal habitats with suitable burrows, usually those made by California ground squirrels ( <i>Otospermophilus beecheyi</i> )	<b>Absent.</b> Burrows of California ground squirrels are present along the periphery of the sports fields, which would provide suitable nesting and roosting habitat for this species. However, they are not known to occur in the vicinity, and the nearest occurrences are located several miles away along the lowlands south of the Santa Cruz Mountains near UC Santa Cruz (CNDDC 2025; Cornell Lab of Ornithology 2025). Determined to be absent.

Name	*Status	Habitat	Potential for Occurrence in the Master Plan Area
Vaux's swift ( <i>Chaetura vauxi</i> )	CSSC (nesting)	Nest both in small colonies and as single pairs, occupying cavities in large snags, primarily in old-growth forests. They also occasionally use artificial cavities such as chimneys; forages aerially	<b>May be Present as Nonbreeder.</b> No suitable breeding habitat is present in the Master Plan area. However, the mixed redwood forest of Henry Cowell Redwoods State Park and Fall Creek Unit of Henry Cowell Redwoods State Park located to the southeast and 615 ft to the west of the Master Plan area, respectively, provide ample nesting habitat in the form of cavities and large snags in mature redwood, Douglas-fir, and other trees. Chimneys of the residential buildings in the neighborhoods north of the Master Plan area may also provide suitable nesting habitat for this species. Vaux's swifts have been observed during the breeding season on the high school campus, and there are ample records of this species throughout the San Lorenzo Valley as well (Cornell Lab of Ornithology 2025). Individuals of this species may forage aerially over the Master Plan area, especially during migration.
Olive-sided flycatcher ( <i>Contopus cooperi</i> )	CSSC (nesting)	Breeds in mature, primarily coniferous, forests with open canopies, along forest edges in more densely vegetated areas, in recently burned forest habitats, and in selectively harvested landscapes	<b>May be Present.</b> Known to nest in Santa Cruz County (Widdowson 2008), including in the Master Plan area vicinity (Cornell Lab of Ornithology 2025). Although no suitable nesting habitat is present in the Master Plan area, the mixed redwood forest to the west and south of the Master Plan area provides ample nesting habitat for this species. Given that this species associates with forest edges, including human-made openings in forest canopy (Widdowson 2008), it is possible that individuals may nest on the edges of the forest immediately adjacent to the Master Plan area and forage over the sports fields. In addition, occasional nonbreeding individuals may forage in the Master Plan area, especially during migration.
Loggerhead shrike ( <i>Lanius ludovicianus</i> )	CSSC (nesting)	Nests in tall shrubs and dense trees; forages in grasslands, marshes, and ruderal habitats	<b>Absent.</b> Known to occur as a rare breeder in the coastal lowlands and foothills of southern Santa Cruz County (Cornell Lab of Ornithology 2025). However, the Master Plan area is outside of this species' typical distribution, and no suitable shrubs or trees are present to provide nesting habitat. Determined to be absent.

Name	*Status	Habitat	Potential for Occurrence in the Master Plan Area
Yellow warbler ( <i>Setophaga petechia</i> )	CSSC (nesting)	Nests in riparian woodlands	<b>Absent.</b> No suitable riparian nesting habitat is present in the Master Plan area. Potentially suitable riparian nesting habitat is present along the San Lorenzo River and Fall Creek, approximately 250 ft and 0.1 mile away from the site; however, this species is an uncommon breeder in the region and is not known to occur in Master Plan area vicinity or in the higher elevations of the Santa Cruz Mountains (Cornell Lab of Ornithology 2025). Thus, the likelihood that this species would nest along either Fall Creek or the San Lorenzo River adjacent to the Plan area is relatively low. The yellow warbler is an abundant migrant in the south San Francisco bay region to the north, and the coastal lowlands of the southern Santa Cruz Mountains, but is not expected to be found at higher elevations in or near the Master Plan area and is therefore determined to be absent.
Grasshopper sparrow ( <i>Ammodramus savannarum</i> )	CSSC (nesting)	Nests and forages in grasslands, meadows, fallow fields, and pastures	<b>Absent.</b> Known to nest and occur in Santa Cruz County primarily in the grasslands found along the coastal southern and western edge of the county, such as at Wilder Ranch State Park approximately 5 miles to the south, with a single record in 2013 of a breeding pair occurring inland approximately 4 miles to the east near Scotts Valley High School (Cornell Lab of Ornithology 2025). Though the sports fields present in the Master Plan area may ostensibly provide suitable nesting or foraging habitat for this species, the managed and maintained nature of the fields likely preclude the species nesting here. Determined to be absent.
Pallid bat ( <i>Antrozous pallidus</i> )	CSSC	Forages over many habitats; roosts in caves, rock outcrops, buildings, and hollow trees	<b>May be Present as Nonbreeder.</b> Historically, pallid bats were likely present in a number of locations throughout the project region, but their populations have declined in recent decades. No known recent (after 1960) records of maternity colonies of this species are present on or adjacent to the Master Plan area (CNDDDB 2025, iNaturalist 2025). Suitable roosting habitat for pallid bats is likely present in cavities in the large redwood and coast live oak trees within the extensive forested habitats west and south of the Master Plan area, as well as buildings in the surrounding neighborhoods. However, no suitable roosting habitat is present in the Master Plan area or close enough (even within larger trees in adjacent areas) to be impacted by the project. Individuals from colonies in the region could occasionally forage in the Master Plan area.

Name	*Status	Habitat	Potential for Occurrence in the Master Plan Area
Townsend's big-eared bat ( <i>Corynorhinus townsendii</i> )	CSSC	Roosts in caves and mine tunnels, and occasionally in deep crevices in trees such as redwoods or in abandoned buildings, in a variety of habitats	<b>May be Present as Nonbreeder.</b> No suitable roosting habitat is present for this species in or immediately adjacent to the Master Plan area. However, this species is known to occur in the forested habitats west of the Master Plan area, potentially roosting in old mines, caves, very large cavities in redwood trees, and barns and abandoned buildings in the Santa Cruz Mountains. Individuals from colonies in the region could occasionally forage in the Master Plan area.
Western red bat ( <i>Lasiurus blossevillii</i> )	CSSC	Roosts in foliage in forest or woodlands, especially in or near riparian habitat	<b>May be Present as Nonbreeder.</b> Western red bats occur in the project vicinity in low numbers as migrants and winter residents, but this species does not breed in the region. Individual western red bats may roost in the foliage of trees virtually anywhere in the Master Plan area, but are expected to roost primarily in riparian areas, such as along Fall Creek to the south and San Lorenzo River to the east. Occasional individuals may forage over the Master Plan area year-round.
San Francisco dusky-footed woodrat ( <i>Neotoma fuscipes annectens</i> )	CSSC	Nests in a variety of habitats including riparian areas, oak woodlands, and scrub	<b>Present in Adjacent Areas.</b> One woodrat nest was detected during the December 2024 site visit in a coast live oak north of the soccer field located on the Campus approximately 0.15 mile from the Master Plan area. Suitable habitat for this species is present west and south of the Master Plan area, therefore this species is considered present in the wooded areas immediately adjacent to, but outside, Master Plan impact areas.
American badger ( <i>Taxidea taxus</i> )	CSSC	Burrows in grasslands and occasionally in infrequently disked agricultural areas	<b>Absent.</b> Primarily occurs in extensive grasslands and scrub habitats. This species is known to occur throughout the Santa Cruz Mountains (CNDDDB 2025, iNaturalist 2025). Occasional dispersants occur in the vicinity of the Master Plan area, and an individual was detected approximately 4.8 miles to the southeast on the UC Santa Cruz campus in 2004 (CNDDDB 2025). However, badgers are not expected to occur in the Master Plan area or establish a den there due to the lack of extensive grasslands present. Determined to be absent.
<b>State Fully Protected Species</b>			

Name	*Status	Habitat	Potential for Occurrence in the Master Plan Area
Golden eagle ( <i>Aquila chrysaetos</i> )	SP	Breeds on cliffs or in large trees (rarely on electrical towers); forages in open areas	<b>May be Present as Nonbreeder.</b> Golden eagles are residents in open areas in the vicinity of the Master Plan area, and there is evidence of breeding in the nearby Henry Cowell Redwoods State Park (Cornell Lab of Ornithology 2025). Individuals can be seen soaring over the Master Plan area, and it is possible they would occasionally move through or forage within the Master Plan area. However, they are not expected to do so frequently, nor to nest adjacent to the Master Plan area, due to the lack of sufficient prey-base and high human disturbance in the area.
White-tailed kite ( <i>Elanus leucurus</i> )	SP	Nests in tall shrubs and trees; forages in grasslands, marshes, and ruderal habitats	<b>May be Present as Nonbreeder.</b> White-tailed kites can occasionally be found in open areas in the vicinity of the Master Plan area, such as meadows in the nearby Henry Cowell Redwoods State Park, but are found in higher numbers in lower elevation areas year round along the coast such as Natural Bridges State Park (Cornell Lab of Ornithology 2025). No suitable nest trees are present in the Master Plan area to provide nesting habitat for this species, and no white-tailed kites or previously-active nests of this species were observed on or adjacent to the site during the December 2024 site visit. However, individuals of this species may forage within the Master Plan area year-round.
Ringtail ( <i>Bassariscus astutus</i> )	SP	Forests and shrublands, often in close association with rocky areas or riparian habitat; nests in rock recesses, hollow trees, logs, snags, abandoned burrows, or woodrat ( <i>Neotoma</i> sp.) nests	<b>Absent.</b> The distribution of this species in the Santa Cruz Mountains is poorly understood. Although this species' strictly nocturnal habits may be at least partially responsible for the lack of information on this species' distribution, it is likely rare given the lack of sightings, and the scarcity of roadkill records (e.g., compared to the nocturnal American badger, which is more frequently detected by roadkills [California Roadkill Observation System 2015]). In the Santa Cruz Mountains, ringtails have been recorded 9 miles north of the Master Plan area near Lexington Reservoir and 20 miles east near Little Arthur Creek west of Gilroy (D. Johnston, pers. comm.), and it is likely that ringtails are present in small numbers in less developed, wooded areas elsewhere in the region. Suitable habitat may be present in the forested lands west of the Master Plan area in the form of dense woodlands and/or rocky outcroppings, but we do not expect individuals to occur in or immediately adjacent to the Master Plan area. Determined to be absent.

\*Key to Abbreviations: Status: Federally Endangered (FE); Federally Threatened (FT); Federal Candidate for Listing (FC); Federally Proposed as Threatened (FPT); State Endangered (SE); State Threatened (ST); State Candidate for Listing (SC); State Fully Protected (SP); California Species of Special Concern (CSSC); ESU = evolutionarily significant unit.

## 5.3 Sensitive Natural Communities, Vegetation Alliances, and Habitats

Natural communities have been considered part of the Natural Heritage Conservation triad, along with plants and animals of conservation significance, since the state inception of the Natural Heritage Program in 1979. The CDFW determines the level of rarity and imperilment of vegetation types, and tracks sensitive communities in its Rarefind database (CNDDDB 2024). Global rankings (G) of natural communities reflect the overall condition (rarity and endangerment) of a habitat throughout its range, whereas state (S) rankings are a reflection of the condition of a habitat within California. Natural communities are defined using NatureServe’s standard heritage program methodology as follows (Faber-Langendoen et al. 2012):

G1/S1:	Critically imperiled
G2/S2:	Imperiled
G3/S3:	Vulnerable.
G4/S4:	Apparently secure
G5/S4:	Secure

In addition to tracking sensitive natural communities, the CDFW also ranks vegetation alliances, defined by repeating patterns of plants across a landscape that reflect climate, soil, water, disturbance, and other environmental factors (Sawyer et al. 2009). If an alliance is marked G1-G3, all of the vegetation associations within it will also be of high priority (CDFW 2024). The CDFW provides VegCAMP’s currently accepted list of vegetation alliances and associations (CDFW 2024).

Impacts on CDFW sensitive natural communities, vegetation alliances/associations, or any such community identified in local or regional plans, policies, and regulations, must be considered and evaluated under CEQA (Title 14, Division 6, Chapter 3, Appendix G of the California Code of Regulations). Furthermore, aquatic, wetland and riparian habitats are also protected under applicable federal, state, or local regulations, and are generally subject to regulation, protection, or consideration by the USACE, RWQCB, CDFW, and/or the USFWS.

### 5.3.1 Sensitive Natural Communities

A query of sensitive natural communities in the CNDDDB (2025) identified eight sensitive natural communities as occurring within the nine 7.5-minute USGS quadrangles containing or surrounding the project site: maritime coast range ponderosa pine forest (Rank G1/S1.1), Monterey pine forest (Rank G1/S1.1), northern coastal salt marsh (Rank G3/S3.2), northern interior cypress forest (Rank G1/S1.2), northern maritime chaparral (Rank G1/S1.2), north central coast drainage Sacramento sucker/roach river (Rank GNR/SNR), north central coast California roach/stickleback/steelhead stream (Rank GNR/SNR), and north central coast short-run coho stream (Rank GNR/SNR) No sensitive natural communities are present in the Master Plan area.

### **5.3.2 Sensitive Vegetation Alliances**

None of the habitat types on the site represent or include sensitive vegetation alliances.

### **5.3.3 CDFW Riparian Habitat**

Due to its rarity and disproportionately high habitat values and functions to wildlife, the CDFW considers riparian habitat to be sensitive. As described above in Section 3.2.5, the CDFW would likely claim jurisdiction over areas at, and below, the top of bank lines on either side of San Lorenzo River and Fall Creek and their associated riparian habitat, located approximately 250 feet and 0.1 mile off-site to the east and southeast, respectively. However, riparian habitat associated with San Lorenzo River and Fall Creek do not extend onto the project site, and they would not be directly or indirectly impacted by project activities.

### **5.3.4 Sensitive Habitats (Waters of the U.S./State)**

No wetlands or other waters of the U.S./state occur on the project site. San Lorenzo River and Fall Creek located approximately 250 feet and 0.1 mile off-site to the east and southeast, respectively, would likely be considered jurisdictional waters of the U.S. up to the OHW mark, and the RWQCB may claim the banks of San Lorenzo River and Fall Creek, and riparian habitat rooted below top of bank, as waters of the state. However, these potentially jurisdictional areas are located entirely off-site.

### **5.3.5 Nonnative and Invasive Species**

Two nonnative, invasive plant species occur on the project site, including bristly ox-tongue and scarlet pimpernel. Bristly ox-tongue has a “none” rating by the Cal-IPC, meaning that it is not currently on the list of plants that are considered high risk for ecological impacts. Scarlet pimpernel has a “moderate” rating by the Cal-IPC, indicating that it has substantial and apparent—but generally not severe—ecological impacts on physical processes, plant and animal communities, and vegetation structure, and that its reproductive biology and other attributes are conducive to moderate-to-high rates of dispersal, though establishment would be generally dependent on ecological disturbance. Due to these species’ ubiquity in the region, project activities are not expected to result in the spread of nonnative and invasive plant species.

## Section 6. Impacts and Mitigation Measures

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CEQA and the State CEQA Guidelines provide guidance in evaluating impacts of projects on biological resources and determining which impacts will be significant. The Act defines “significant effect on the environment” as “a substantial adverse change in the physical conditions which exist in the area affected by the proposed project.”

Appendix G of State CEQA Guidelines provides a checklist of other potential impacts to consider when analyzing the significance of project effects. The impacts listed in Appendix G (Chapter IV) may or may not be significant, depending on the level of the impact. For biological resources, these impacts include whether the project would:

- A. “have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service”
- B. “have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service”
- C. “Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means”
- D. “interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites”
- E. “conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance”
- F. “conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan”

Potential impacts on biological resources as a result of the proposed project were systematically evaluated at the project level based on the project description provided to us by David J. Powers & Associates through February 2025. Based on this information, it is our understanding that all project impacts including grading, construction, and staging will occur within the limits of boundaries provided, but that permanent impacts will be limited to the field lights, bleachers, restroom building, and bullpen. For the purpose of this assessment, we have assumed that the proposed Master Plan area would impact up to 0.42 acres of landscaped/developed habitat.

Potential impacts on existing biological resources were evaluated by comparing the quantity and quality of habitats present on the project site under baseline conditions to the anticipated conditions after implementation of the proposed project. Direct and indirect impacts on special-status species and sensitive natural communities were assessed based on the potential for the species, their habitat, or the natural community in question to be disturbed or enhanced following implementation of the proposed project. Both construction-related impacts and operational impacts, such as the impacts resulting from increases in nighttime activity, light, and noise in the Master Plan area, as well as increased in nighttime vehicular activity in the vicinity, were assessed.

**6.1 Impacts on Special-Status Species:** Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS (Less than Significant with Mitigation)

**6.1.1 Impacts on Regionally Common Habitats and Associated Common Plant and Wildlife Species (Less than Significant)**

Proposed Master Plan area activities occur entirely in landscaped/developed habitat and would not impact natural habitats nor convert natural habitats to landscaped/developed habitat. Landscaped/developed habitat currently present in the Master Plan area was previously converted from more natural biotic habitat types that occur within adjacent areas, including mixed redwood forest and riparian woodland, and experiences regular disturbance. Thus, common plant and wildlife species found in this habitat are accustomed to the presence of artificial structures, lighting, noise, and human activity, and the project would not result in a reduction in the abundance of some of the common plant and wildlife species that occur there. In addition, landscaped/developed habitat is abundant and widespread regionally, is not particularly sensitive, and is not especially valuable (from the perspective of providing important plant or wildlife habitat). Therefore, impacts on this habitat are considered less than significant under CEQA.

**6.1.2 Impacts on Water Quality and Special-Status Fish (Less than Significant)**

No direct impacts to San Lorenzo River or Fall Creek, which flow north to south and west to east approximately 250 feet and 0.1 mile from the Master Plan area, respectively, are proposed. Indirect impacts on water quality in these streams could potentially occur as a result of Master Plan area project activities, which are located upslope of the streams. Project activities could potentially impact the Central California coast steelhead, Central California coast coho salmon, and Pacific lamprey if they are present in Fall Creek and San Lorenzo River due to a temporary increase in erosion, sedimentation, and turbidity in aquatic habitats located downstream of the work area. Additionally, minor spills of petrochemicals, hydraulic fluids, and solvents may occur during vehicle and equipment refueling. Such leaks/spills could adversely affect water quality downslope and downstream of construction activities.

Indirect impacts on water quality from construction of the project would be avoided and minimized by implementing erosion and sediment control measures, as well as BMPs for work near aquatic environments.

Implementing these measures and BMPs will minimize the potential for impacts on water quality due to increases in erosion, sedimentation, and turbidity as well as releases of pollutants into Fall Creek and San Lorenzo River located downslope of the project site. Therefore, project activities are not expected to result in substantial adverse indirect effects on water quality or special-status fish, and such impacts would be less than significant.

### **6.1.3 Impacts of Construction on Nonbreeding Special-Status Invertebrates, Birds, and Roosting Bats and Other Mammals (Less than Significant)**

Several special-status bird and mammal species may occur on the project site as nonbreeding migrants, transients, or foragers, but they are not known or expected to breed or occur in large numbers within or near the project impact area. These are the monarch butterfly, Vaux's swift, golden eagle, white-tailed kite, mountain lion, pallid bat, Townsend's big-eared bat, and western red bat.

Few, if any, monarch butterflies are expected to be present in the Master Plan area given the developed nature of the habitat, lack of milkweeds on the site, the lack of high-quality floral resources to support foraging individuals, and the lack of any evidence that an overwintering site is present nearby. The Vaux's swift may breed in the vicinity of the Master Plan area in cavities and large snags in old-growth forests, as well as chimneys in nearby neighborhoods. The Master Plan area lacks suitable nesting habitat for this species, but it may occur as a forager over the Master Plan area throughout the year. The golden eagle is known to occur in the Master Plan area vicinity as a breeder, including at Henry Cowell Redwoods State Park, but would not breed in the Master Plan area due to lack of sufficient prey-base and high human disturbance. This species may occur as an occasional forager in the Master Plan area. The white-tailed kite infrequently occurs in the Master Plan area vicinity but is more common in lower elevation areas along the coast, and could occur in the Master Plan area as an infrequent forager, but is not expected to breed. Due to the Master Plan area's location in a low-density developed area on the periphery of open space areas of the Santa Cruz Mountains, individual mountain lions (a state candidate species) may occur on or, more likely, adjacent to the site during dispersal or during movement within a home range, but individuals are not expected to linger in or very close to the project's impact areas for any length of time due to high levels of human activity.

The large coast live oak trees and coast redwood trees in the forested lands west of the Master Plan area provide suitable roosting habitat for common bat species such as the Yuma myotis (*Myotis yumanensis*), California myotis (*Myotis californicus*), long-eared myotis (*Myotis evotis*), big brown bat (*Eptesicus fuscus*), hoary bat (*Lasiurus cinereus*), and Mexican free-tailed bat (*Tadarida brasiliensis*) as well as three California species of special concern: the pallid bat, Townsend's big-eared bat, and western red bat. There are no large cavities capable of supporting large roosts, or maternity roosts, of special-status or common bats in or adjacent to the Master Plan area. The pallid bat and Townsend's big-eared bat (both California species of special concern) may occur as occasional foragers in the Master Plan area, and the pallid bat may roost in small numbers in the nearby forested areas, but neither species are known to breed in areas adjacent to the Master Plan area. The western red bat (a California species of special concern) may also roost in small numbers in trees in or adjacent to the Master Pan area in winter or during migration, but it is not expected to roost in large numbers and does not breed in the project region.

Activities under the proposed project would have some potential to impact foraging habitats and/or disturb small numbers of individuals of these species. Construction activities might result in a temporary direct impact through the alteration of foraging patterns (e.g., avoidance of work sites because of increased noise and activity levels during maintenance activities) but would not result in the loss of individuals, as individuals of these species would move away from any construction areas or equipment before they could be injured or killed. Further, the project site itself does not provide important foraging habitat used regularly or by large numbers of individuals of any of these species. As a result, construction of the project will have little impact on these species' foraging habitat and no substantive impact on regional populations of these species. Therefore, this impact would be less than significant under CEQA.

#### **6.1.4 Impacts of Construction on Nesting Olive-sided Flycatcher (Less than Significant)**

The olive-sided flycatcher (a California species of special concern while nesting) may nest in mixed redwood forest found south and west of the Master Plan area. Based on site observations, the areal extent of suitable habitats on and adjacent to the project site, and known nesting densities of this species, no more than one pair of olive-sided flycatchers could potentially nest immediately adjacent to the Master Plan area. The project would not result in the permanent loss of suitable nesting and foraging habitat for the olive-sided flycatcher. However, construction activities that occur during the nesting season and cause a substantial increase in noise or human activity near active nests may result in the abandonment of active nests (i.e., nests with eggs or young). Heavy ground disturbance, noise, and vibrations caused by project construction activities could potentially disturb nesting and foraging individuals and cause them to move away from work areas.

Because the number of nesting pairs that could be disturbed by construction is very small (i.e., one pair), the impacts of project activities would represent a very small fraction of the regional populations of these species. Therefore, neither the potential loss of individual olive-sided flycatchers, nor the disturbance of nesting and foraging habitat, would rise to the CEQA standard of having a *substantial* adverse effect, and these impacts would thus not constitute a significant impact on these species or their habitat under CEQA. However, as discussed in Section 3 above, all native migratory birds, including olive-sided flycatchers, are protected under the MBTA and California Fish and Game Code. Recommended measures to comply with these laws are provided under Section 7 *Compliance with Additional Laws and Regulations*, below.

#### **6.1.5 Impacts of Construction on the San Francisco Dusky-Footed Woodrat (Less than Significant)**

One nest of San Francisco dusky-footed woodrats was detected during the December 2024 site visit in a coast live oak within mixed redwood forest approximately 0.15 mile north of the Master Plan area. Therefore, this species is considered present in the mixed redwood forest directly adjacent to the south and west of the Master Plan area. Construction of the Master Plan area could result in the disturbance or destruction of nests and young, leading to increased predation risk on woodrats flushed from nests, as a result of operation of equipment.

Although woodrats are abundant in the Master Plan area vicinity, they are very important ecologically in that they provide an important prey source for raptors (particularly owls) and for predatory mammals, and their nests also provide habitat for a wide variety of small mammals, reptiles, and amphibians. However, no nests of the San Francisco dusky-footed woodrat were detected in any of the proposed field light locations or other areas that may be affected by construction in the Master Plan area. Thus, in our opinion, impacts of construction of the project on woodrats and their nests would be considered less than significant under CEQA.

#### **6.1.6 Impacts of Construction on California Giant Salamander and Santa Cruz Black Salamander (Less than Significant)**

There is a low potential for the California giant salamander or Santa Cruz black salamander to occur in the Master Plan area when construction occurs, and thus, the project is unlikely to impact these species. However, the possibility that a small number of individuals could occur on the project site cannot be eliminated. Individuals, if present, could be directly impacted by construction activities associated with the project. Individuals may be crushed by foot traffic, vehicles, or equipment, or crushed, trapped, and/or suffocated in their refugia by the passage of heavy equipment. An increase in native and nonnative predators attracted to the project site due to trash left on the work site might temporarily result in increased mortality of individuals of these species. Because project activities will be limited to landscaped/developed habitat and no impacts on these species' primary habitats (i.e., rocks and woody debris along Fall Creek or San Lorenzo River, aquatic habitat in Fall Creek or San Lorenzo River, clay or silty soils in unshaded upland areas) would occur, the number of individuals that could be impacted by the project is extremely small (i.e., one or two individuals of each species, at most). Because these impacts would represent such a small proportion of these species' regional populations, they would not rise to the CEQA standard of having a *substantial* adverse effect. For these reasons, project impacts on individual California giant salamanders would be less than significant under CEQA.

Master Plan area activities will be limited to landscaped/developed areas that are unsuitable for these species, and no impacts on primary habitats for the California giant salamander (i.e., rocks and woody debris along the creek, or aquatic habitat in the channel) or Santa Cruz black salamander (i.e., rocks, talus, and moist woody debris, or moist underground activities) would occur. However, minor spills of petrochemicals, hydraulic fluids, and solvents may occur during vehicle and equipment refueling. Such leaks/spills could adversely affect water quality downstream of construction activities, potentially impairing the health of eggs or larvae along Fall Creek or San Lorenzo River. However, potential indirect impacts on habitat and individuals due to a reduction in water quality would be avoided and minimized as described in Section 6.1.2 above, and would be less than significant under CEQA.

#### **6.1.7 Impacts of Increased Lighting (Less than Significant)**

The project will result in the construction of field lights that will increase the amount of lighting on and immediately adjacent to the Master Plan area. No up-lighting is proposed in the project design, and the field lights will be shielded to attenuate any unwanted up-lighting. This lighting will spill into adjacent natural areas, thereby resulting in an increase in lighting compared to existing conditions. Areas to the north and southeast are developed areas in Felton that do not support sensitive species or sensitive habitats. However, the mixed

redwood forest on Campus property to the west and on a property zoned timberland preserve with residence to the south, as well as riparian woodland habitats along the San Lorenzo River to the east and Fall Creek to the southeast, provide suitable habitat for a variety of wildlife species including riparian bird communities and sensitive species such as the olive-sided flycatcher and San Francisco dusky-footed woodrat, and are close enough to the Master Plan area to potentially be affected by an increase in lighting.

Our assessment of potential impacts of project lighting on wildlife considers existing lighting conditions within these areas, as well as any expected changes in illuminance that would result from the construction of the new field lights.

### **General Summary of Lighting Impacts on Wildlife**

The intensity, spectral quality (i.e., the distribution of blue, green, red, and other portions of the light spectrum emitted by a light source), duration, and periodicity of exposure to light are known to affect the biochemistry, physiology, and behavior of organisms (The Royal Commission on Environmental Pollution 2009). Many animals are extremely sensitive to light cues, having evolved behavioral and/or physiological responses to natural variations in light levels resulting from the day–night cycle, the cycle of the moon, and the seasonal light cycle. Responses can affect processes as diverse as growth, metabolism, patterns of movement (e.g. migration), feeding, breeding behavior, molting, and hibernation (Ringer 1972, de Molenaar et al. 2006). This holds true for birds (Longcore and Rich 2004, Miller 2006, de Molenaar et al. 2006, Da Silva et al. 2015), mammals (Beier 2006, De Molenaar et al. 2003 as cited in Longcore et al. 2016, Voigt et al. 2017), and other taxa as well, suggesting that increases in ambient light may interfere with these processes across a wide range of species, resulting in impacts on wildlife populations.

Artificial lighting has also been shown to increase the nocturnal activity of predators like owls, hawks, and mammalian predators (Negro et al 2000, Longcore and Rich 2004, DeCandido and Allen 2006, Beier 2006). In addition, it has been found to affect the composition of the invertebrate community present in the area (Davies et al. 2012), and some bat species have been found to congregate around artificial light sources because of the high numbers of flying insects they attract (Frank 1988, Eisenbeis 2006). The presence of artificial light may also influence habitat use by rodents (Beier 2006), and by breeding birds (Rogers et al. 2006, de Molenaar et al. 2006), by causing avoidance of well-lit areas, resulting in a net loss of habitat availability and quality.

Artificial lighting may also affect fish species in a variety of ways. For example, an increase in nighttime illuminance can disturb the seasonal and diel light cycles of freshwater invertebrates that fish feed on by disrupting their nocturnal drift periods, which is timed with low predation risk (Flecker 1992, Miyasaka and Nakano 2001, Hernandez and Peckarsky 2014). This can reduce the nocturnal drift activity by freshwater invertebrates, and potentially reduce the availability of prey for foraging fish species. In addition, an increase in nighttime illuminance can disrupt the temporal and spatial movement patterns of young (fry) fish that typically disperse and migrate at night to decrease their risk of predation (Scheuerell and Schindler 2003, Stich et al. 2015, Zapata et al 2019). Numerous studies have shown that an increase in nighttime illuminance on bodies of

water can inhibit foraging activity, increase predation risk on fish, and significantly change the composition of fish communities that occur across a day-night period (Riley et al. 2013, Zapata et al. 2014).

While it is generally known that adverse effects of lighting on wildlife can be influenced by the temperature and wavelength of light, peer-reviewed scientific studies provide conflicting results with respect to the degree and type of effects of lighting temperatures and/or wavelengths on various species of plants and animals. For example, studies have found that using blue and green lights may be less disorienting to birds compared to red lights (Poot et al. 2008). In addition, warmer-temperature, broad-spectrum LEDs that emit more long-wavelength light than short-wavelength light (i.e., 3,000 K compared to 5,000 K) have less pronounced effects on behaviors of certain bird species (Alaasam et al. 2018). However, birds can also be disoriented by both red lights (Sheppard 2022) and blue lights (Zhao et al. 2020), indicating that there is variation between species. A review of the effects of LEDs on terrestrial wildlife for the California Department of Transportation (Longcore 2023) concluded that many species are less sensitive to longer wavelengths/higher-temperature LEDs, but responses vary among species and taxonomic groups, and the diversity of responses of terrestrial wildlife species to lighting temperatures is too large to provide a single recommendation for an ideal lighting spectral composition. Nevertheless, the International Dark-Sky Association, the American Bird Conservancy, and other organizations currently recommend using lighting with a color temperature of 3,000 Kelvin and lower, or ideally 2,700 Kelvin and lower, because cooler/bluer light (defined as 3,000 Kelvin and greater) has a stronger negative effect on plants and animals compared to warmer/redder lights (defined as 2,700 Kelvin and lower).

### **Existing Lighting Conditions**

Based on observations from the site visit on December 1, 2024, light from currently existing sources illuminates the Master Plan area as well as some adjacent areas. Numerous downward-facing lights are located throughout the Master Plan area and nearby areas within the school campus, including pole-mounted lights and lights affixed to school buildings, storage buildings, and other outbuildings (Photos 3 and 4). These lights are generally small and/or limited in the amount of light they cast, typically illuminating doorways, hallways, or resources such as water fountains. Streetlights are also present in parking lots on the Campus outside of the Master Plan area. Currently there are no significant (i.e. tall, very bright) sources of light within the Master Plan area, such as competition field lights.

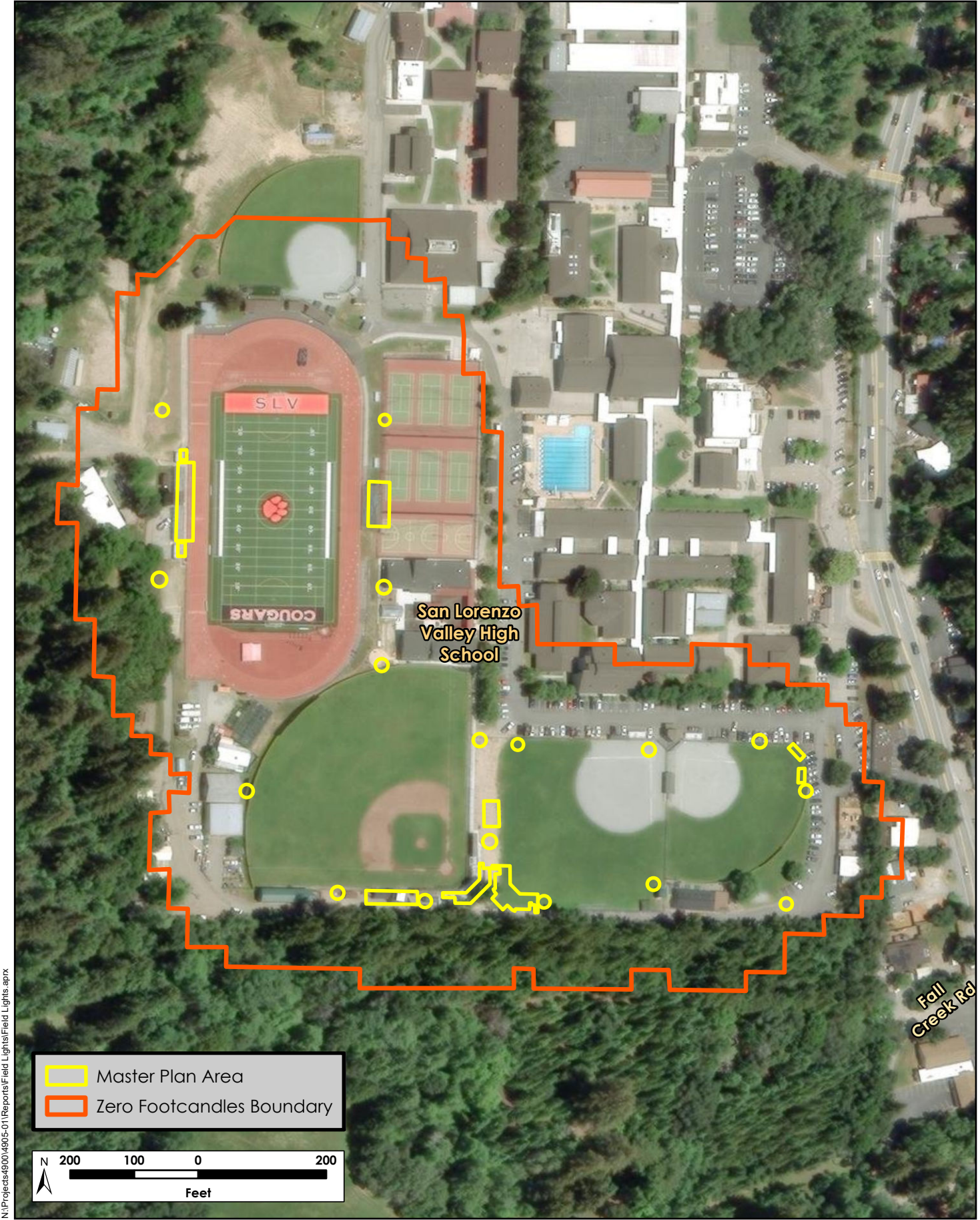


**Photos 3 and 4. Examples of exterior lights present adjacent to the Master Plan area within the proposed field lights area of illuminance.**

### **Proposed Lighting Conditions**

The 17 outdoor competition lights proposed within the Master Plan area are depicted by yellow circles in Figure 6. Within the playing surface of the football field, the maximum illuminance from these outdoor lights would reach approximately 56 footcandles (fc) over ambient light conditions. In the brightest spots of the baseball and softball fields, illuminance would reach a maximum of 63 fc. For reference, a 100-watt light bulb produces 137 fc at 1 foot away, approximately 0.05 fc at 50 feet and 0.01 fc at 100 feet (Watchfire Signs 2017). Due to the directed nature of the proposed lights and effective minimization of glare, the amount of light significantly decreases with distance from each field, such that the point at which there is zero illuminance from the proposed lights is approximately 48–200 feet away from proposed light fixtures in the Master Plan area (Figure 6). Based on this lighting plan, none of the lights will increase illuminance on the sensitive habitats of Fall Creek or the San Lorenzo River, but there would be an increase in illuminance within a portion of the mixed redwood forest south and, to a lesser extent, west of the Master Plan area.

Illuminance within the adjacent mixed redwood forest from the proposed field lights will have a maximum value of 2.6 fc over ambient light conditions at the southern boundary of the Campus immediately adjacent to the playing fields. Because illuminance declines with increasing distance, the amount of light reaching into the forest would be reduced to 0 fc at approximately 95 feet south and 99 feet west of the school fence. As a result, an approximately 2.3-acre portion of the forest will receive anywhere from 0.1 to 2.6 fc of illumination above ambient light conditions from the new field lights. During the school year, the field lights are proposed to operate five days per week from Monday through Friday until 8:30 p.m., which would extend from 0–0.5 hour past sunset in summer and 3.5 hours past sunset in winter. During the school year, the field lights would also operate during up to 12 annual events that last until 10:00 p.m., which would extend from 1.5 hours past sunset in summer and 5 hours past sunset in winter. Field lights will not be operating when school is not in session. Thus, wildlife in this area would be exposed to 0.1–2.6 fc of illuminance above existing dark conditions for 0.5–5 hours per day on approximately 60% of days of the year.



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**H. T. HARVEY & ASSOCIATES**  
Ecological Consultants

**Figure 6. Light Dissipation Map**  
San Lorenzo Valley Fields Master Plan  
Biological Resources Report (4905-01)  
April 2026

## Anticipated Impacts of the Proposed Field Lights on Wildlife

Although there is agreement in the literature that increases in illuminance can affect wildlife behavior, as described above, there is no quantitative level of illuminance increase (above ambient light) that is agreed upon as a threshold for significant impacts to animals. Thus, our assessment of the potential effects of an increase in illumination from the new field lights conservatively assumes that the project would result in adverse effects on wildlife, as discussed under *General Summary of Lighting Impacts on Wildlife* above, throughout the approximately 2.3-acre area of adjacent mixed redwood forest habitat that would be subject to an increase in illumination.

In addition to effects related to increased illuminance, the proposed field lights, which will have a lighting temperature of 5,700 K, may also result in effects on wildlife related to lighting temperature. The International Dark-Sky Association provides a certification program for outdoor sports lighting that provides a maximum allowable correlated color temperature of 5,700 K for light sources illuminating the field of play (International Dark-Sky Association 2025). However, this program does not certify sports lighting facilities in areas that are sensitive to lighting, and because the project site is located immediately adjacent to redwood forest habitat, it is our opinion that the Association's typical recommendation to use lighting temperatures no greater than 3,000 K would be appropriate for any lighting that spills into the adjacent habitats. As a result, the temperature of the proposed field lights could have adverse effects on wildlife in the adjacent mixed redwood forest.

Although the approximately 2.3-acre area of mixed redwood forest that would be subject to increased illuminance by the project is connected to protected lands of Henry Cowell Redwoods State Park, we do not expect any special-status wildlife to rely heavily on this area. As described in the *Special-Status Animal Species* section above, we expect a maximum of one pair of breeding olive-sided flycatchers and 5-6 pairs of San Francisco dusky-footed woodrats, both California species of special concern, to occur and potentially nest in forested edges near the Master Plan area. Other special-status animals that could occasionally move through and/or forage within this area in small numbers, but are not expected to breed there, are the monarch butterfly, California giant salamander, Santa Cruz black salamander, golden eagle, white-tailed kite, Vaux's swift, pallid bat, Townsend's big-eared bat, and western red bat (mountain lion is addressed separately in Section 6.1.9 below). In addition, common wildlife species such as birds, bats and other mammals, reptiles, and amphibians will use this area for foraging, shelter, and potentially for breeding. However, this approximately 2.3-acre area is not subject to use by large numbers of individuals of any one species, and does not represent core habitat that is relied upon by any one population. As a result, only small numbers of individuals, and a small area of moderate-quality habitat, would be affected by project lighting, and project lighting would not result in population-level effects or the extirpation of wildlife species from local communities.

In addition, the approximately 2.3-acre area of mixed redwood forest that would be subject to increased illuminance by the project is located at the urban/wildland interface. Any wildlife species using the approximately 2.3-acre area may also use surrounding urban/wildland interface areas, and therefore these animals would be habituated to some existing levels of illuminance associated with surrounding urban light sources in Felton and along Highway 9. This habituation is expected to reduce the effects of project lighting

on local wildlife species, as any individuals inhabiting the surrounding area are more likely to continue to use the affected once it is lit, due to their habituation.

In summary, the project is expected to result in adverse effects on wildlife due to increased illumination of the approximately 2.3-acre area of redwood forest adjacent to the Master Plan area, as discussed under *General Summary of Lighting Impacts on Wildlife* above. This habitat is located on the Campus property and on an adjacent residential property; no lighting will spill into nearby sensitive habitats at Henry Cowell Redwoods State Park, along Fell Creek, or along the San Lorenzo River. The project's proposed lighting design will effectively minimize glare and the spill of lighting into adjacent areas. The proposed lighting is also consistent with International Dark-Sky Association design guidance for outdoor sports lighting, although the temperature of light that will spill into the mixed redwood forest habitat (5,700 K) exceeds the International Dark-Sky Association's recommendations for lighting in wildlife habitat areas ( $\leq 3,000$  K). However, the numbers of common and special-status wildlife species that use this habitat are limited relative to their regional populations, and thus any reduction in use of the approximately 2.3-acre area would not result in population-level effects or the extirpation of wildlife species from local communities. Further, wildlife species that occur in the urban/wildland interface area where the project is located are habituated to existing illuminance associated with surrounding development, and hence are more likely to continue using the illuminated area following project construction. In considering these combined factors, project impacts due to adverse effects of project lighting on wildlife (except mountain lions, which are addressed below in section 6.1.9) would be less than significant under CEQA, in our opinion, because population-level effects and community-level effects would not occur, and protected or especially sensitive habitats (i.e., at Henry Cowell Redwoods State Park, along Fall Creek, or along the San Lorenzo River) would not be affected.

### **6.1.8 Impacts of Increased Noise, Human Activity, and Nighttime Vehicular Traffic (Less than Significant)**

Currently, the PA system consists of three loudspeakers attached to the football stadium press box on the eastern bleachers and two speakers at each baseball and softball announcers' booths. The proposed project would replace and operate upgraded PA speakers in these locations and would not increase the number of speakers or place them in new areas of the Campus. The project will comply with local noise ordinances regarding operation of the new PA system, including Santa Cruz County noise ordinance 8.30.10 defining noise as offensive in excess of 75 decibels at the edge of the property line (Santa Cruz County 2024). As outlined in Table 1 in Section 1.1.3, play-by-play commentary will only be permitted during football games, and all other uses of the PA system during competitions will be limited to announcements, warm-up music, or similar uses without running commentary. In addition to sound broadcast over the PA system, sound from the crowd, referees' whistles, bands, and athletes will contribute to the noise that occurs during athletic events. The amount of noise related to a single competition will not increase compared to current levels, but there will be a temporal shift (i.e., games played later in the evening after sunset). In addition, the number of games held on-site will increase with the installation of the field lights, as evening games currently need to be held off-site due to the lack of field lights, thereby increasing human activity and associated vehicular traffic at night. Therefore, we

have addressed the impacts of the temporal shift and increase in noise, human activity, and vehicular traffic, particularly at night, on wildlife.

Animals are adapted to the natural sounds in their environment, either from abiotic (e.g., wind, rain) or biotic (other animals) sources. Natural sounds provide information to wildlife to assess threats, find food, locate mates, and navigate terrain. Wildlife are adapted to these natural sounds, but are not as well-adapted to anthropogenic noise (Blickley and Patricelli 2010). Anthropogenic noise (i.e., sounds produced by human activity or the operation of human-made devices, often simply referred to as “noise”) is often in lower frequencies (under 250 Hz) than natural sounds, meaning it can travel farther through the environment before dissipating (McKenna et al. 2016; Blickley and Patricelli 2010). Wildlife exposed to high levels of noise in the short term may experience increased stress responses that impact their ability to conduct routine behaviors, while wildlife exposed to similarly loud noises repeatedly may experience permanent impairment and possibly loss of hearing. Animals may alter their behavior due to noise, becoming more vigilant of predators where sounds are masked and reducing time spent foraging and hunting in areas due to fear of encountering humans.

Wildlife exposed to noise at or above 85 decibels (dB) may result in hearing loss, temporary or permanent threshold shift (change in hearing sensitivity), impaired or eliminated ability to hear environmental cues, and increased heart rate and breathing (Arcangeli et al. 2023; Dooling and Popper 2007). High noise levels may mask the ability of animals to hear important cues in their environment, such as obscuring the sound of arthropods from foraging bats, leading to changes in foraging behavior and use of habitat (Schaub et al. 2008). Furthermore, while amphibians and reptiles may have a more limited range of hearing than mammals, many species are very sensitive to vibrations (Bowles 1995). Noise at lower frequencies then has an increased risk of having a negative impact on those species sensitive to vibrations in the environment, such as amphibians and reptiles. In birds, increased noise may cause a decrease in reproductive success related to increased energetic costs due to disrupted incubation and feeding (Engel et al. 2024).

An increase in nighttime traffic can affect wildlife in direct ways, such as by collisions or roadkill, and indirect ways such as behavioral changes. Sensitive species such as bobcat, coyote, and grey fox (*Urocyon cinereoargenteus*) may avoid areas with higher traffic volume and other high noise areas (Shilling et al. 2018). Noise from roads can also impact wildlife in adjacent habitats. For example, the federally endangered Mt. Graham red squirrel (*Tamiasciurus hudsonicus grahamensis*), a small tree squirrel, is more likely to occupy middens (i.e., stores of food in pine trees) farther from roads due to the decrease in traffic noise (Chen & Koprowski 2015). Large ungulates such as elk (*Cervus canadensis*) will venture closer to roads during times of less disturbance such as on weekends, when busy logging roads are less used (Edge and Marcum 1985). Wildlife that may already be shifting their activity to times with less human noise and activity, i.e. at night, may be exposed to more disturbance with the temporal shift in use of the athletic fields.

In addition, the increase in human activity such as foot traffic and vehicular traffic at night may cause an increase in mortality in crepuscular and nocturnal wildlife that may be moving across the parking lots, walkways, or roads. Typical attendance for a football game can range from 500 up to 1000 people, and approximately 200

people for baseball and softball games. Attendance and vehicular traffic for a single competition is not expected to increase due to project activities, but there would be an increase in games occurring at night, increasing the risk of collision with nocturnal animals, especially on rainy nights when visibility is further decreased. Wildlife that may be navigating across these areas at night, particularly small mammals, amphibians, and reptiles, may experience direct impacts of increased human activity and vehicular traffic related to night games as they are harder to see and subsequently avoid. As discussed in section 6.1.6, there is a low potential for the California giant salamander or Santa Cruz black salamander, both California species of special concern, to occur in the Master Plan area, and thus, the increase in noise and other human activity is unlikely to impact these species. However, the possibility that a small number of individuals could occur in the Master Plan area cannot be eliminated. Individuals, if present, could be directly impacted by increased human activity associated with nighttime competitions, particularly because they are mostly nocturnal and are often moving on damp or rainy nights when human visibility is poor. Individuals may be crushed by foot traffic, vehicles, or equipment, or crushed, trapped, and/or suffocated in their refugia by the passage of competition equipment. Similarly, other common nocturnal wildlife species such as the raccoon may experience a small increase in roadkill.

The increased noise, human activity, and vehicular traffic may affect up to one pair of nesting olive-sided flycatcher and 5-6 pairs of dusky-footed woodrat occurring in the mixed redwood forest habitat adjacent to the Master Plan area, as well as occasional small numbers of California giant salamander, Santa Cruz black salamander, golden eagle, white-tailed kite, Vaux's swift, and a number of common and special-status roosting bats. This increase in noise and human activity may also affect common animal species. These potential impacts overall would not result in a substantial impact to any one species given the small number of individuals potentially affected and the affected habitat being of marginal quality for these species. The disturbance from nighttime competitions may cause dispersing animals to avoid areas where increases in noise and human activity occur, but such areas are very limited in extent, as indicated on Figure 6, and they are located at the urban/wildland interface rather than in core habitat that would be used heavily by animals for dispersal. Furthermore, potential impacts from these disturbances would not cause any local extirpation, given their relatively low potential to occur in the impacted area and much higher quality habitat found elsewhere in the region, such as Henry Cowell Redwoods State Park Fall Creek Unit to the west or Quail Hollow Ranch to the northeast.

In summary, increased noise, human activity, and vehicular traffic from the proposed field lights, PA system, and subsequent shift to nighttime competitions will not have a substantial impact on wildlife (except mountain lions, addressed below in section 6.1.9) in or adjacent to the Master Plan area, and such impacts are therefore less than significant impact under CEQA.

### **6.1.9 Impacts on Mountain Lion (Less than Significant)**

Mountain lions occurring near the Master Plan area are part of the Central Coast North Evolutionary Significant Unit (CC-N ESU) (BAPP 2023). The CC-N ESU includes mountain lions found within the counties of Alameda, Contra Costa, San Mateo, Santa Clara, and Santa Cruz. Because mountain lions in the Santa Cruz Mountains comprise the core of this ESU, this report analyzes impacts to mountain lions in the context of the

Santa Cruz Mountains subpopulation, which consists of approximately 50 mountain lions (Swafford 2023; San Jose Mercury News 2024; BAPP 2025).

Mountain lions are known to occur in the Master Plan area and adjacent forested areas, and up to several mountain lions at a time may have overlapping territories that include the Master Plan area (SCPP 2025). Mountain lions may be impacted by the Master Plan in a number of ways. During construction, mountain lions may avoid natural areas adjacent to the Master Plan area due to increased noise. Research in Los Angeles found that in areas of high human activity, mountain lions shifted their activity to the night to avoid people (Bolas et al. 2025). Following construction, mountain lions may be impacted by the increased human activity and resulting noise in the Master Plan area during events. Mountain lions in the Santa Cruz Mountains have been shown to respond negatively to the sound of human voices. A study by Smith et al. (2017) within Santa Cruz, Santa Clara, and San Mateo Counties found that mountain lions reacted in a significantly stronger way when experimentally exposed to recordings of human noise compared to recordings of Pacific tree frog while feeding on a carcass. Mountain lions may also avoid natural areas that are illuminated by field lights at night. Research has shown that when mountain lion territories include areas with high levels of artificial light at night, they do still hunt in them but prefer to make kills in the darkest places within them (Ditmer 2021). Mountain lions may also face increased risk of vehicle collisions because of events in the Master Plan area. Their population in the Santa Cruz mountains has been heavily fragmented by development, especially Highway 17 and other heavily trafficked roads. Vehicle collisions are an issue impacting the population, as the Santa Cruz Puma Project found that among 65 adult and subadult individuals GPS-collared between 2009-2020, five died due to vehicle collisions (Nisi et al. 2023).

Impacts to mountain lions due to the Master Plan were evaluated in detail by Live Oak Associates (2026). Their analyses determined that construction impacts on mountain lions would not be substantial because as a low-density species, mountain lions would occur in adjacent habitats very infrequently. Since their activity pattern is mostly crepuscular, but may become nocturnal when they move closer to development (Wang et al. 2017), mountain lion activity would not overlap much with daylight hours when construction would occur. Finally, construction noise would drop greatly with increasing distance from the construction site, such that avoidance of the areas adjacent to the construction site would diminish to less than significant levels at approximately 600 ft from the project site.

Live Oak Associates' analyses determined that impacts due to increased lighting and noise during nighttime events would also not be substantial due to the low population density of this species, limited number of nighttime events, and resulting low likelihood of mountain lion and nighttime event co-occurrence. The likelihood of co-occurrence during one event per year would be 65%, but it would drop precipitously to 30% for two events per year; 5.5% for three events per year; and less than 1% for four events per year. Since mountain lions already must use avoidance behavior under existing conditions, impacts due to increased light and noise at night would not rise to the level of a significant impact.

Just as the low likelihood of mountain lions co-occurring during nighttime events resulted in impacts due to noise and light being considered very low, Live Oak Associates (2026) similarly found that impacts due to road mortality would also not be substantial for this same reason. The largest change in traffic due to the installation of field lights would occur during a football homecoming game, which would result in an increase of approximately 309 inbound trips and 31 outbound trips at 5pm. Live Oak Associates estimated that mountain lions would only occur within two 100-acre blocks adjacent to the Master Plan area on 18 days per year, and the chances of mountain lion co-occurrence with the homecoming event would only be approximately 4.8%.

Based on the detailed analysis of potential Master Plan impacts on mountain lions, such impacts would be less than significant.

**6.2 Impacts on Sensitive Communities:** Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS (Less than Significant)

**6.2.1 Impacts on Riparian Habitat or Other Sensitive Natural Communities (Less than Significant)**

The CDFW defines sensitive natural communities and vegetation alliances using NatureServe’s standard heritage program methodology (CDFW 2024), as described above in Section 5.3. Aquatic, wetland, and riparian habitats are also protected under applicable federal, state, or local regulations, and are generally subject to regulation, protection, or consideration by the USACE, RWQCB, CDFW, and/or the USFWS (see Section 6.3 below). Project impacts on sensitive natural communities, vegetation alliances/associations, or any such community identified in local or regional plans, policies, and regulations, were considered and evaluated.

San Lorenzo River and Fall Creek flow from north to south and west to east, respectively, adjacent to, but not through, the Master Plan area. The entirety of ground-disturbing project impacts will occur outside of the riparian corridor for these streams; thus, the proposed project will have no direct permanent or temporary impacts on riparian habitat. There is potential for indirect effects to occur within riparian areas downslope of the Master Plan area if runoff from the project increases in intensity or frequency due to the proposed project. However, BMPs will be implemented during construction of the proposed project as discussed above in Section 6.1.2, reducing these impacts to a less-than-significant level.

No other sensitive natural communities are located on the project site or would be affected by the proposed project.

**6.3 Impacts on Wetlands:** Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal

pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means (Less than Significant)

No wetlands or other waters of the U.S./state are present on the Master Plan area. San Lorenzo River and Fall Creek, located 250 feet and 0.1 mile downslope of the Master Plan area to the east and southeast, respectively, supports other waters of the U.S./state but does not support wetlands. The project will avoid all direct impacts on state or federally protected aquatic habitats within these streams.

Because San Lorenzo River and Fall Creek are located downslope of the project site, there is some potential for the project to result in indirect impacts on other waters of the U.S./state within these streams. However, the project will implement a SWPPP, as discussed above in Section 6.1.2, and this plan would minimize increases of peak discharge of storm drain water and to reduce runoff of pollutants to protect water quality, including during construction. Thus, with implementation of measures and BMPs, potential project impacts on other waters would be less than significant under CEQA.

**6.4 Impacts on Wildlife Movement:** Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites (Less than Significant)

#### **6.4.1 Impacts on Wildlife Movement (Less than Significant)**

For many species, the landscape is a mosaic of suitable and unsuitable habitat types. Environmental corridors are segments of land that provide a link between these different habitats while also providing cover. Development that fragments natural habitats (i.e., breaks them into smaller, disjunct pieces) can have a twofold impact on wildlife: first, as habitat patches become smaller they are unable to support as many individuals (patch size); and second, the area between habitat patches may be unsuitable for wildlife species to traverse (connectivity).

San Lorenzo River and Fall Creek and the associated riparian corridors provide an important movement pathway for both aquatic and terrestrial wildlife species, connecting natural areas in the project vicinity. Songbirds that migrate along the Pacific Flyway disperse and forage along San Lorenzo River and Fall Creek in low to moderate numbers. Common, urban-adapted species such as raccoons and striped skunks may use the vegetation along the streams to move north and south and east and west through the Santa Cruz Mountains. Small mammals, such as mice and shrews, will also use this vegetation to move between habitats. The forest found within the Henry Cowell Redwoods State Park Fall Creek Unit provides important movement pathways for the olive-sided flycatcher and numerous other common and special-status mammals, birds, bats, and amphibians. Common species of reptiles and amphibians, such as Pacific chorus frogs and alligator lizards, amongst other species, are also expected to move along this corridor adjacent to the project site. The proposed construction of light poles and other elements in the Master Plan area will not result in any loss of aquatic, wetland, or riparian habitat along San Lorenzo River or Fall Creek or in any substantial reduction in the value

of the stream corridors for wildlife movement. It would also not result in any loss of mixed hardwood forest within Henry Cowell Redwood State Park Fall Creek Unit.

There would, however, be an increase in light, noise, human activity, and vehicular traffic to the Master Plan area and surrounding areas. As discussed in sections 6.1.7 and 6.1.8, increases in such disturbances can cause wildlife to change their behavior, particularly in the way they move through an area. Increased light and noise may cause dispersing animals to avoid areas where such increases occur, but these areas are very limited in extent, as indicated in Figure 6, and they are located at the urban/wildland interface rather than in core habitat that would be used heavily by animals for dispersal. Furthermore, potential impacts to movement would not cause any local extirpation, given their relatively low potential to occur in the impacted area and much higher quality habitat found elsewhere in the region, such as Henry Cowell Redwoods State Park Fall Creek Unit to the west or Quail Hollow Ranch to the northeast.

Thus, aquatic and terrestrial species would continue to be able to move north to south along San Lorenzo River and Fall Creek and/or through Henry Cowell Redwood State Park Fall Creek Unit following completion of the project, without any substantial reduction in such movement. Therefore, the project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites, and this impact is determined to be less than significant.

## **6.5 Impacts due to Conflicts with Local Policies:** Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (Less than Significant with Mitigation)

### **6.5.1 Impacts Due to the Removal of Ordinance-Sized Trees (No Impact)**

No trees are proposed for removal as part of the Master Plan area. Therefore, there are no potential impacts related to conflicts with local policies or ordinances protecting trees.

### **6.5.2 Impacts Due to Encroachment into the Stream/Riparian Corridor (No Impact)**

To protect the ecological functions and values of a stream, buffers are often prescribed between new development and the stream (or its banks or associated riparian habitat). These buffers provide habitat for plants and animals associated with the stream, provide habitat connectivity (i.e., areas used for wildlife movement, including flight paths for birds), reduce indirect effects of adjacent development (e.g., noise, lighting, human activity, or invasive species) on the natural stream and riparian habitats, allow for the possible future expansion of natural habitat, help to maintain site hydrology, and in some areas allow for runoff to be treated (e.g., by flowing through vegetated areas) before it enters the stream. In addition, vegetative communities within stream buffers may provide important refugia for animals associated with wetland and riparian habitats along the creek during flood events, when little to no such refugia may be present within the

banks of the creek itself. In general, larger buffers protect more of the ecological functions and values of the stream than smaller buffers.

As discussed in Section 3.3.2 above, the County's Riparian Corridor and Wetlands Protection Code state that a protected stream setback is present along Fall Creek and extends a horizontal distance of up to 50 feet measured from the top of bank. This setback does not overlap the project site, therefore, the project does not encroach into the riparian corridor, and impacts would be considered less than significant under CEQA.

## **6.6 Impacts due to Conflicts with an Adopted Habitat Conservation**

**Plan:** Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan (No Impact)

The project site is not located within an area covered by an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, the project would not conflict with any such plans.

## **6.7 Cumulative Impacts (Less than Significant)**

Cumulative impacts arise due to the linking of impacts from past, current, and reasonably foreseeable future projects in the region. Future development activities in Felton will result in impacts on the same habitat types and species that will be affected by the proposed project. The proposed project, in combination with other projects in the area and other activities that impact the species that are affected under the project, could contribute to cumulative effects on special-status species. Other projects in the area include both development and maintenance projects that could adversely affect these species and restoration projects that will benefit these species.

The cumulative impact on biological resources resulting from the project in combination with other projects in the larger region would be dependent on the relative magnitude of adverse effects of these projects on biological resources compared to the relative benefit of impact avoidance and minimization efforts prescribed by planning documents, CEQA mitigation measures, and permit requirements for each project; and compensatory mitigation and proactive conservation measures associated with each project. In the absence of such avoidance, minimization, compensatory mitigation, and conservation measures, cumulatively significant impacts on biological resources would occur.

However, many projects in the region that impact resources similar to those impacted by the project will be subject to CEQA requirements. It is expected that such projects will mitigate their impacts on sensitive habitats and special-status species through the incorporation of mitigation measures and compliance with permit conditions.

One of the primary issues that mountain lions within the Santa Cruz Mountains face is isolation from other populations, as the Puma Project has found no evidence of mountain lion movement to the nearby Diablo or Gabilan Ranges since research began in 2008 (CDFW 2025). Since this project is located in the middle of the Santa Cruz Mountains, it will not pose a significant barrier to dispersal to these other nearby mountain ranges, and therefore will not significantly contribute to this cumulative impact. Within the Santa Cruz Mountains, mountain lions face diminished habitat value due to development and degradation of suitable habitat due to artificial light at night and human noise. The baseline condition of the forest adjacent to the Master Plan area already has diminished habitat value, and the footprint for light and noise impacts is very small in relation to these baseline conditions. Because the mountain lion population naturally occurs at a low density, the probability of a mountain lion occurring during the four events that would occur up until 10PM is low, and there is only a minimal increase in traffic trips associated with these events. Live Oak Associates analyses (2026) estimated that even if mountain lions might occasionally avoid the forest within 600 feet of the Master Plan area, this would have a negligible effect on their ability to hunt, mate, raise young, or disperse. Therefore, regardless of the magnitude and significance of cumulative impacts that result from other projects, the proposed project is not expected to have a substantial effect on mountain lions or other biological resources, and the project will not have a cumulatively considerable contribution to cumulative effects on biological resources.

## Section 7. Compliance with Additional Laws and Regulations for Nesting Birds

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Several species of common native birds protected by the MBTA and California Fish and Game Code may nest in trees and shrubs on the site or immediately adjacent to the site. It is also possible that protected native birds could nest on the buildings on the site. The removal of vegetation or demolition of buildings supporting active nests may cause the direct loss of eggs or young, while construction-related activities located near an active nest may cause adults to abandon their eggs or young. This type of impact would not be significant under CEQA, in our opinion, because of the local and regional abundances of the species that could potentially nest on the site and the very low magnitude of the potential impact of development on these species (i.e., the project is expected to impact only a few pairs of these species, which is not a substantial impact on their regional populations). However, the following measures should be implemented to ensure that project activities do not violate the MBTA and California Fish and Game Code:

**Measure 1. Avoidance of the Nesting Season.** To the extent feasible, the initiation of commencement of demolition and construction activities should be scheduled to avoid the nesting season. If demolition and construction activities are initiated outside the nesting season, all potential demolition/construction impacts on nesting birds protected under the MBTA and California Fish and Game Code will be avoided. The nesting season for most birds in Santa Cruz County extends from February 1 through August 31.

**Measure 2. Pre-Activity/Pre-Disturbance Surveys.** If it is not possible to schedule the initiation of demolition and construction activities between September 1 and January 31, then pre-activity surveys for nesting birds should be conducted by a qualified ornithologist to ensure that no nests will be disturbed during project implementation. We recommend that these surveys be conducted no more than seven days prior to the initiation of demolition or construction activities. During this survey, the ornithologist will inspect all trees and other potential nesting habitats (e.g., trees, shrubs, and buildings) in and immediately adjacent to the impact areas for nests.

**Measure 3. Non-Disturbance Buffers.** If an active nest is found sufficiently close to work areas to be disturbed by these activities, the ornithologist will determine the extent of a construction-free buffer zone to be established around the nest (typically 300 feet for raptors and 100 feet for other species), to ensure that no nests of species protected by the MBTA and California Fish and Game Code will be disturbed during project implementation.

**Measure 4. Nesting Deterrence.** If construction activities will not be initiated until after the start of the nesting season, all potential nesting substrates (e.g., structures, bushes, grasses, and other vegetation) that are scheduled to be removed by the project may be removed prior to the start of the nesting season (e.g., prior to February 1). This will preclude the initiation of nests in these substrates, and minimize the potential delay of the project due to the presence of active nests in these substrates.

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