CALIFORNIA ENVIRONMENTAL QUALITY ACT

DRAFT
INITIAL STUDY AND
MITIGATED NEGATIVE DECLARATION
FOR
UPPER CITY VIEW TRAIL PROJECT

City of Ukiah
COMMUNITY DEVELOPMENT DEPARTMENT

January 17, 2022
SCH No: XXXXXXXX

Prepared by:

City of Ukiah
Community Development Department
Planning Division
300 Seminary Avenue, Ukiah, CA 95482

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ATTACHMENTS

I. PROJECT INFORMATION

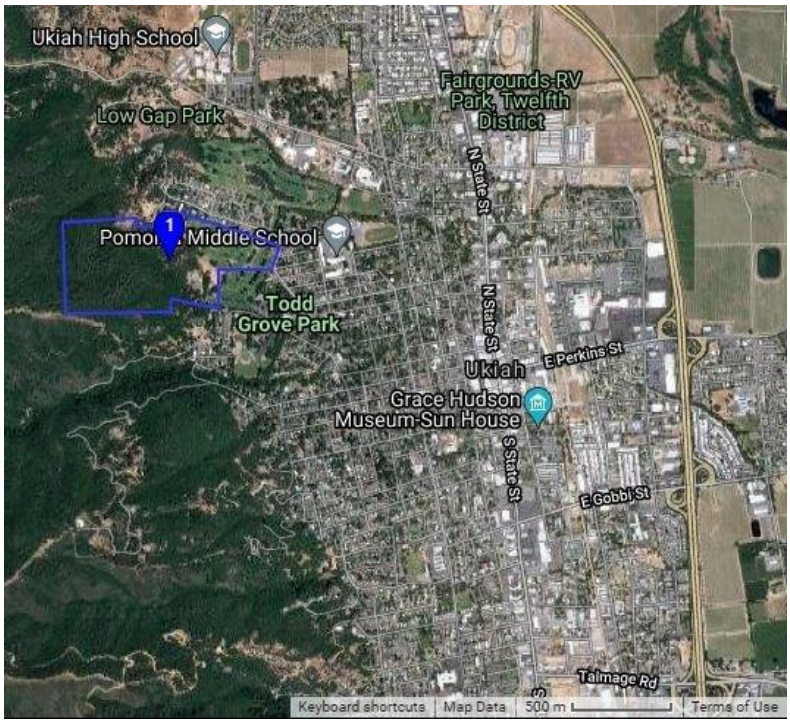
Project Title:
Upper City View Trail
Lead Agency Address and Phone Number:
City of Ukiah 300 Seminary Avenue Ukiah, California 95482 (707) 463-6200
Project Contact Person and Phone Number:
Neil Davis, Director City of Ukiah Community Services Department (707) 467-5764 ndavis@cityofukiah.com
CEQA Contact Person and Phone Number:
Michelle Irace, Planning Manager City of Ukiah Community Development Department (707) 463-6268 mirace@cityofukiah.com
Project Location: The trail would be located on a City-owned parcel (APN: 001-030-01) located adjacent to Low Gap Park at 1167 Low Gap Rd, Ukiah
General Plan Designation: Rural Residential (RR) **Zoning District:** Single-Family Residential-Hillside Overlay (R1-H)

II. PROJECT DESCRIPTION

1. Project Location

The approximately 46-acre Project site (APN 001-030-01) is situated within the northwestern most portion of the City of Ukiah. The eastern portion of the parcel contains a portion of the Ukiah Municipal Golf Course and is also developed with water tanks. The western portion of the parcel is undeveloped and just south of Low Gap Park, a County-maintained Park that is developed with recreation facilities including the following trails: Orr Creek Trail, East Orr Creek Trail, Shooting Star Trail, Canyon Creek Trail, the Lost Treasure Road, and the City View Trail that the proposed trail would connect to. **Figure 1** below provides a location map.

Figure 1, Project Location



2. Environmental Setting and Background

The Project area is situated within the Coast Range geologic province. The North Coast Range is comprised of a geologic feature unique to California, the Franciscan Formation, which dictates the vegetative communities. The Franciscan Formation is comprised of serpentine, sandstone, and other sedimentary rocks. This area is characterized by a Mediterranean climate; the winters are cool and wet, and the summers are hot and dry. Annual average temperatures for this region range from about 30 to 100 degrees Fahrenheit.

The Project is located within the Ukiah Valley in central Mendocino County. The Ukiah Valley is located approximately 30 miles east and inland from the Pacific Ocean. It runs north-south for approximately nine miles, with a maximum width of three miles, with elevations varying from approximately 600-feet

above mean sea level up to approximately 3,000 feet in the hills surrounding the city, including the Western Hills. The Russian River enters the valley at the north end and runs south along the valley floor. Ukiah is located along the Highway 101 corridor and near the east/west intersection of Highway 20, two hours north of the Golden Gate Bridge. Incorporated in 1876, Ukiah is the county seat and largest city in Mendocino County.

Vegetation communities in the area include mixed oak, sparse redwood forest stands, chaparral, and manzanita, with some sparse redwood groves. The proposed trail will run almost entirely beneath a substantial tree canopy cover of natural woodlands consisting mainly of native tree and understory species. The creek nearest the Project is Orr Creek, approximately 0.3-mile north of the proposed trail alignment. There is also an unnamed Class III watercourse in the north portion of the alignment, near the City View Trail connection.

The 2.8-mile existing City View Trail was constructed by the Ukiah Valley Trail Group in 2009 and in 2010 was designated as a park facility in Division 1, Chapter 12, Parks and Recreation Facilities, of the Ukiah City Code (section 1965).

The proposed trail route and design was established by the Ukiah Valley Trail Group (UVTG), a volunteer non-profit organization dedicated to preserving, enhancing, and establishing trails in the Inland of Mendocino County. UVTG staff and volunteers have extensive experience in trail design, building, and maintenance. In 2015, the UVTG developed the Low Gap Park Trail Plan which identifies existing trails within the park, issues and recommendations for existing trails, as well as opportunities for new trails. The proposed Upper City View Trail was one of the trails identified in the plan as a new potential trail.

3. Project Components

The Project proposes the development of a one-mile loop of narrow-gauge natural surface trail commonly known as a “hiking trail” that would begin and end on the upper leg of the existing 2.8-mile City View Trail. The City View Trail is primarily used for hiking, walking, and trail running and is accessible year-round. The new trail will utilize a series of switchbacks to ascend, then traverse approximately one-half mile before descending to return to the upper leg of City View Trail. Beginning from the northern junction with City View Trail, the proposed trail crosses moderate side slopes and utilizes a series of switchbacks through mixed hardwoods with occasional small redwoods to gain elevation. After gaining approximately 200 feet the trail begins its contouring southerly traverse. The proposed trail crosses an unsanctioned “use” trail that climbs steeply to the Ukiah “U.” As the trail approaches the southern boundary of the property it descends and reverses direction twice before reconnecting with the southern end of City View Trail. The proposed trail alignment is shown in **Figure 2** below, as well as in **Figure 3** which also shows the existing City View Trail.

Trail grades will vary according to topography with average grades of 7 to 8 percent, for the majority of the trail, with some shorter trail sections in the steeper areas reaching approximately 12 percent. However, this trail route will ensure that the average grade for the entirety of the trail does not exceed the 10 percent threshold suggested in the UVTG standards. The proposed trail will run almost entirely beneath a substantial tree canopy cover of natural woodlands consisting mainly of native tree and understory species (see **Figure 4** below for an example of existing habitat; more photographs are included in **Attachment A**). In accordance with the UVTG design and maintenance standards, the trail will be 2 to 4 feet wide, back sloped to create an angle of repose to the greatest extent possible, and built with a 3 to 5 percent outslope and rolling dips to allow sheet water drainage. The proposed trail alignment would cross the unnamed Class III watercourse, which is categorized as having no

aquatic life present, but shows evidence of being capable of sediment transport to Class I and II waters under normal high water flow. UVTG plans to complete the work during the dry season and the UVTG Design and Maintenance Standards intended to reduce erosion will be implemented. The trail will be assessed annually for the first three years to determine if a crossing such a as footbridge is needed; other techniques such as hardening or the use of a culvert may be used if a footbridge is determined to be impractical. See Section V.4, Biological Resources, for more information.

The proposed trail route and design was established by the UVTG and was selected to maintain consistent slope integrity and to keep disturbances to natural areas at minimal levels. Trimming of encroaching tree branches will be required along portions of the trail. Tree branch pruning, trimming, and root care activities will be limited to those branches that would represent hazards to hikers or cause extensive detours and additional grading for the trail route. The trail crosses a few areas of dense, immature redwood trees of less than 6feet diameter breast height (dbh). Thinning of these small, immature trees will be required to create a trail corridor. Thinning of these dense stands of immature redwoods will reduce fuel load while leaving many small trees on both sides of the trail for continued growth. No trees greater than 6" dbh will be removed for this project.

The proposed trail was also designed with input from the Sanhedrin Chapter of the Native Plant Society, who often collaborates with the UVTG to review trail design to ensure impacts to special status plant species are reduced or avoided. An additional loop was proposed in the original design, but removed from the plan in response to concerns cited by members of the botanical review team in regard to the potential impact to native plants (see Biological Resources section for more information).

The trail will be built in accordance with the UVTG Design and Maintenance Standards (**Attachment B**). Construction is anticipated to take approximately two weeks to complete. Trail construction will be completed mostly by hand tools (McLeod, pulaski, axe, pick, pole saw, hand saw, loppers, shovel, etc.). However, different trail construction methods and tools will be utilized to accommodate the varied topography, vegetation, and other natural conditions on the Project site; this may include the occasional use of power equipment tools such as chainsaws, power wheel barrows, vibra-plates, jackhammers, or small trail dozers designed specifically for trail building. First, vegetation and detritus materials will be removed to establish the trail's path and contour. The trail is designed to minimize impacts on this natural vegetation, but the grading required to establish the 2 to 4-foot wide trail at a relatively even grade will require the removal of groundcover and bushes along its entire length. Base cuts will then be made to remove the uppermost organic layer and expose base soils while causing minimal disturbances to trailside banks. This method also allows the construction of the three percent out-slopes (from the inner edge of the trail to the outer edge) and tapered shoulders to allow water to sheet off the trail, decreasing the potential for erosion, as described in the UVTG trail design standards in **Attachment B**.

The proposed trail will be constructed by UTVG volunteers and the California Conservation Corps. Once constructed, UVTG trail maintenance standards require that natural vegetation be permitted to grow back on the sides of the trail and along the shoulder areas to help maintain the trail base and reestablish its original natural appearance.

Parking will be provided in the existing Low Gap Park parking lot and the trail will be accessed through the main park entrance. Existing restrooms, trash receptacles and water fountains are provided within the park. The trail is intended for hikers only and will be accessible during regular Low Gap Park hours (8:00 a.m. to 9:00 p.m.).

The Project will be funded by UVTG through donations collected by the Pacific Medical Redwood Group as a part of UVTG fundraising efforts. Similar to the existing City View Trail, the proposed trail

will be predominantly maintained by UVTG volunteers in order to minimize or avoid the use of City Park staff.

Figure 2, Proposed Trail Alignment

Figure 3, Existing City View Trail and Proposed Trail

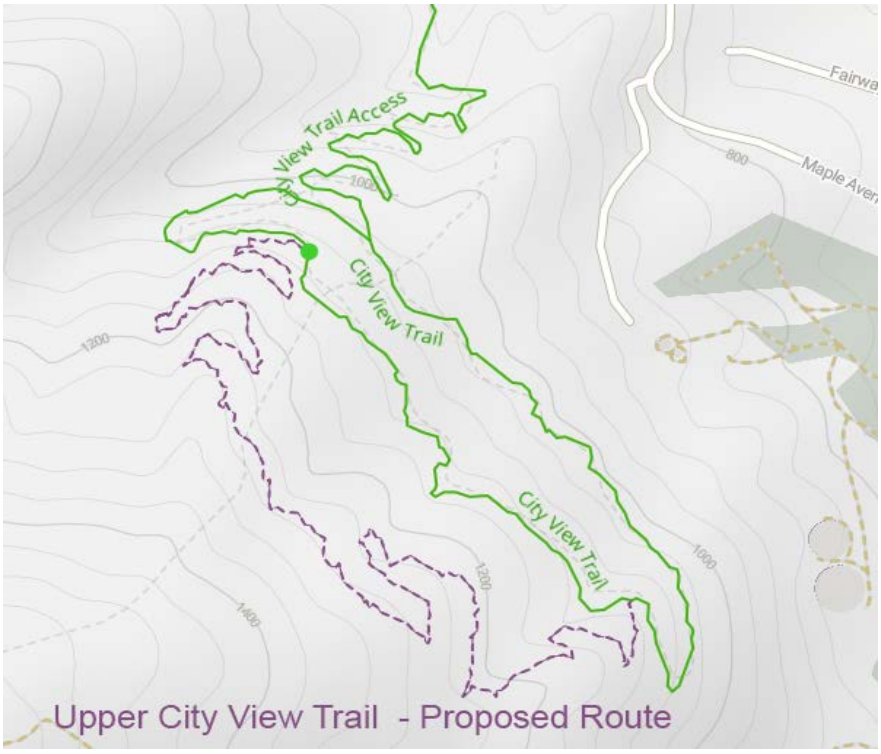


Figure 4, Example Habitat along Proposed Trail

III. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

Purpose of the Initial Environmental Study: This Initial Study has been prepared consistent with CEQA Guidelines Section 15063, to determine if the Project, as proposed, would have a significant impact upon the environment.

The environmental factors checked below would be potentially affected by this Project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture & Forestry	☒ Air Quality
☒ Biological Resources	☐ Cultural Resources	☐ Energy
☐ Geology / Soils	☐ Greenhouse Gas Emissions	☒ Hazards & Hazardous Materials
☒ Hydrology/Water Quality	☐ Land Use / Planning	☐ Mineral Resources
☐ Noise	☐ Population / Housing	☐ Public Services
☐ Recreation	☐ Transportation	☐ Tribal Cultural Resources
☐ Utilities/Service Systems	☒ Wildfire	☒ Mandatory Findings of Significance

Summary of Findings: The Project proposes the development of a one-mile loop of narrow-gauge natural surface trail commonly known as a “hiking trail” that would begin and end on the upper leg of the existing 2.8-mile City View Trail. The proposed trail route and design was established by the UVTG and was selected to maintain consistent slope integrity and to keep disturbances to natural areas at minimal levels. Tree branch pruning, trimming, and root care activities will be limited to those branches that would represent hazards to hikers or cause extensive detours and additional grading for the trail route. Every effort to re-route the alignment of the trail to avoid the unnecessary removal of trees will be made. The proposed trail was also designed with input from the Sanhedrin Chapter of the Native Plant Society, who often collaborates with the UVTG to review trail design to ensure impacts to special status plant species are reduced or avoided.

The trail will be built in accordance with the UVTG Design and Maintenance Standards (**Attachment B**). Construction is anticipated to take approximately two weeks to complete. Trail construction will be completed mostly by hand tools (McLeod, pulaski, axe, pick, pole saw, hand saw, loppers, shovel, etc.). However, different trail construction methods and tools will be utilized to accommodate the varied topography, vegetation, and other natural conditions on the Project site; this may include the use of power equipment tools as conditions require and opportunity allows such as chainsaws, power wheel barrows, vibra-plates, jackhammers, or small trail dozers designed specifically for trail building.

As described throughout the Initial Study, temporary ground disturbing activities associated with vegetation removal and trail construction could result in direct significant impacts to Air Quality, Biological Resources, Hazards and Hazardous Materials, Hydrology and Water Quality, and Wildfire. However, mitigation measures identified within the aforementioned sections would reduce impacts to **less than significant with mitigation incorporated**.

Cumulative impacts are generally considered in analyses of Air Quality, Biological Resources, Cultural Resources, Noise, and Traffic. As discussed throughout the Initial Study, the Proposed Project would either have a less than significant impact, or less than significant impact with implementation of mitigation measures on these resources, as described herein. Short-term construction impacts associated with the Project would not significantly contribute to cumulative impacts in the area as there are no known past projects nor current projects within the vicinity of the site. Based on the findings and conclusions contained in the Initial Study, cumulative impacts related to the Proposed Project would be **less than significant with mitigation incorporated**.

In summary, based upon the analysis contained within this Initial Study and Mitigated Negative Declaration, all potential impacts resulting from the Proposed Project would be l**ess than significant with incorporation of mitigation.**

IV. DETERMINATION

On the basis of the initial evaluation that follows:

____ I find that the proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

__X__ I find that although the proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because mitigation measures and project revisions have been identified that would reduce all impacts to a less than significant level. A MITIGATED NEGATIVE DECLARATION will be prepared.

_____ I find that the proposed Project MAY have a significant effect on the environment. An ENVIRONMENTAL IMPACT REPORT is required.

_____ I find that the proposed Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

_____ I find that although the proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed Project, nothing further is required.

Signature

January 17, 2022

Date

Michelle Irace, Planning Manager
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City of Ukiah
mirace@cityofukiah.com

V. EVALUATION OF ENVIRONMENTAL IMPACTS

The purpose of this Initial Study/Mitigated Negative Declaration (IS/MND) is to provide an analysis of the potential environmental consequences as a result of the proposed Project. The environmental evaluation relied on the following categories of impacts, noted as column headings in the IS checklist, in accordance with CEQA Guidelines Appendix G.

"Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact."

"Less Than Significant Impact" applies where the Project would not result in a significant effect (i.e., the Project impact would be less than significant without the need to incorporate mitigation).

"No Impact" applies where the Project would not result in any impact in the category or the category does not apply. This may be because the impact category does not apply to the proposed Project (for instance, the Project Site is not within a surface fault rupture hazard zone), or because of other project-specific factors.

1. Aesthetics

AESTHETICS. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

Significance Criteria: Aesthetic impacts would be significant if the Project resulted in the obstruction of any scenic vista open to the public, damage to significant scenic resources within a designated

State scenic highway, substantial degradation to the existing visual character or quality of the site and its surroundings from public views, or generate new sources of light or glare that would adversely affect day or nighttime views in the area, including that which would directly illuminate or reflect upon adjacent property or could be directly seen by motorists or persons residing, working or otherwise situated within sight of the Project.

Environmental Setting: As discussed in the City of Ukiah's 1995 General Plan, one of the most notable scenic resources in the City limits is the Western Hills. The surrounding hills frame the valley, creating an aesthetic resource for residents and visitors. Views of expansive hillsides to the north, east and south, within the County jurisdiction, also surround the City. Many open space and scenic areas in Mendocino County are protected under easements managed by land trusts, none of which are located within the vicinity of the Proposed Project. Some surrounding hillsides are densely forested with evergreen trees, while others are relatively open in comparison, dominated by mature oak trees set amid scrub and grasslands. Some residential development is visible within the Western Hills from the valley floor. Water in the form of creeks, streams, and rivers is often a prominent feature in the landscape as well. Protecting the natural scenic features has been a priority for the City.

The Project site consists of an undeveloped parcel adjacent to Low Gap Park, a developed park with recreation resources, including a skate park, a disc-golf course, playgrounds, tennis courts, an amphitheater, and trails. According to the Department of Fish and Wildlife's BIOS vegetation mapping program, the Project site comprises Evergreen Forest habitat. In addition, the site contains includes native and nonnative annual and perennial grasses, with dense chaparral and mixed hardwood forest throughout.

Discussion: (a & c) Less than significant impact. Scenic vistas are typically described as areas of natural beauty with features such as topography, watercourses, rock outcrops, and natural vegetation that contribute to the landscape's quality. The Western Hills are considered a scenic vista. Generally speaking, public views of the Western Hills are available from roadways, and adjacent residential areas within the valley floor. Conversely, expansive views of the valley are provided from vantage points within the Western Hills, particularly from trails and overlook locations such as those found along existing trails.

Almost the entire trail system will be situated beneath the natural forest canopy (see photos in **Attachment A**) and would not be seen from public vantage points. The fairly narrow (2 to 4-foot) proposed trail has been designed to avoid substantial vegetation and tree removal. Although some removal will be required, it would not result in a substantial impact to views of the Western Hills, as the trail would not be visible from public vantage points within the valley floor, and the trail would be similar in nature to the existing City View Trail, as well as other trails in the area. Similarly, impacts associated with new trail being constructed over a two-week period would be considered temporary and minimal. Lastly, the trail would offer vantage points containing views of valuable aesthetic resources. For the aforementioned reasons, the Project would not result in a significant impact to scenic vistas, nor the visual character of the site or area. Impacts would be **less than significant.**

(b) No impact. According to the California Department of Transportation's (Caltrans) State Scenic Highway System Map, there are no designated state scenic highways within the vicinity of the Project. In addition, there are no highways identified as eligible for state designation. Therefore, the Project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. Lastly, the City's General Plan, the

County General Plan does not designate any local scenic roads in the Project area; **no impact** to scenic resources within a designated scenic corridor would occur.

(d) No impact. Construction would take place during daylight hours and no lighting is proposed along the trail. **No impact** would occur.

Mitigation Measures: None

2. Agriculture and Forestry Resources

AGRICULTURE AND FORESTRY RESOURCES. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Significance Criteria: The Proposed Project would have a potentially significant impact on agricultural resources if it would convert prime farmland to a non-agricultural use, conflict with a Williamson Act contract, or disrupt a viable and locally important agricultural use. The Project would have a potentially significant impact on forestry resources if it would result in the loss, rezoning or conversion of forestland to a non-forest use.

Environmental Setting: Early agricultural efforts in the Ukiah Valley included the raising of livestock, and the growing of various grains, hay, alfalfa, and hops. When the Northwestern Pacific Railroad was completed in 1889; prunes, potatoes, pears, and hops could be grown and sent to San Francisco and other regional markets. Wine grapes were planted, and irrigation was practiced on a small scale. Through the 1950's, hops, pears, prunes and grapes were the most widely planted crops in the Ukiah Valley. After the railroad was completed, lumber mills sprang up in the Ukiah Valley and became the

major industry in Mendocino County as trains took redwood logs and processed boards south to the San Francisco region. Today, much of the active agricultural land is located on the valley floor and lower elevations along the Russian River system. Only a limited percentage of the valley's agricultural lands are currently protected under Williamson Act Agricultural Preserve contracts. According to the County of Mendocino's Public GIS system, there are no Williamson Act contracts within the Project site.

There are no zoning districts within the City limits for Agriculture or Timber Preserve. While there is an overlay for agriculture in the Zoning Ordinance, it is not applied over any parcel within the City limits. There are a small number of City parcels which have current agricultural use, such as existing vineyards. However, they are ongoing non-conforming uses within non-agricultural zoning districts. According to the California Department of Conservation Farmland Mapping & Monitoring Program, California Important Farmland Finder, the majority of lands within the City of Ukiah are identified as "Urban Built-Up Land".

Discussion: (a-e) No Impact. According to the California Department of Conservation Farmland Mapping & Monitoring Program, California Important Farmland Finder, the Project site does not contain Unique Farmland, or Farmland of Statewide Importance. However, the site is designated as Grazing Land, which is defined as land on which the existing vegetation is suited to the grazing of livestock, but the site has not been used for grazing. There are no agricultural uses or Williamson Act contracts on-site or in the immediate vicinity. The Project would not convert Farmland, conflict with existing zoning for agriculture or forest land, and would not involve changes to the environment that would result in the conversion of agricultural resources to non-agriculture uses. No impact would occur.

Mitigation Measures: None

3. Air Quality

AIR QUALITY. Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.				
Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☒	☐	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☒	☐	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☒	☐	☐

Significance Criteria: The Proposed Project would have a significant impact to air quality if it would conflict with an air quality plan, result in a cumulatively considerable net increase of criteria pollutant which the Mendocino County Air Quality Management District (MCAQMD) has designated as non-attainment, expose sensitive receptors to substantial concentrations of air pollutants, or result in emissions that create objectionable odors or otherwise adversely affect a substantial number of people.

Environmental Setting: The Project is located within the North Coast Air Basin (NCAB), which includes Del Norte, Humboldt, Trinity, Mendocino, and northern Sonoma Counties, and is under the jurisdiction of the Mendocino County Air Quality Management District (MCAQMD). The area's climate is considered Mediterranean, with warm, dry summers and cooler, wet winters. Summer high temperatures average in the 90's with high temperatures on very warm days exceeding 105 degrees. Summer low temperatures range between 50-60 degrees. Winter high temperatures generally range in the 50's and 60's. The average annual temperature is 58 degrees. Winter cold-air inversions are common in the valley from November to February.

Prevailing winds are generally from the north. Prevailing strong summer winds come from the northwest; however, winds can come from the south and east under certain short-lived conditions. In early autumn, strong, dry offshore winds may occur for several days in a row, which may cause air pollution created in the Sacramento Valley, Santa Rosa Plain, or even San Francisco Bay Area to move into the Ukiah Valley.

The MCAQMD, which includes the City of Ukiah and surrounding areas, is designated as non-attainment for the State Standard for airborne particulate matter less than 10 microns in size (PM^{10}).

Particulate matter (PM) has significant documented health effects. The California Clean Air Act requires that any district that does not meet the PM^{10} standard make continuing progress to attain the standard at the earliest practicable date. The primary sources of PM^{10} are wood combustion emissions, fugitive dust from construction projects, automobile emissions and industry. Non-attainment of PM^{10} is most likely to occur during inversions in the winter. Regulation 1 of the MCAQMD contains regulations (known as "Rules") to regulate particulate matter; these Rules prohibit activities that would result in the injury, detriment, or annoyance of a considerable number of people, or which endanger the health and safety of the public.

The MCAQMD also provides the following significance thresholds for construction emissions:

1. 54 pounds per day of ROG (reactive organic gas)
2. 54 pounds per day of NOx (oxides of nitrogen as nitrogen dioxide)
3. 82 pounds per day of PM^{10} (particulate matter less than 10 microns in size)
4. 54 pounds per day of $PM^{2.5}$ (airborne particulate matter with a diameter of 2.5 microns or less)
5. Best Management Practices for Fugitive Dust – PM^{10} and $PM^{2.5}$

Discussion: (a-d) Less than significant with mitigation. Typically, short-term construction related air quality impacts from emissions and dust result from large projects requiring a significant amount of grading or new construction, in addition to vehicle trips and operation of diesel equipment. Long-term air quality impacts are typically from land uses that produce a significant amount of emissions, or sources of dust or other airborne irritants.

As described in the Project Description, trail construction will be completed with the use of hand tools, and will also minimize the amount of vegetation being removed. Construction of the trail would not require a significant amount of construction trips, as it will only take approximately two weeks and most of the hand tools will be walked in by trail builders. Vegetation will be chipped and re-used on site. If powered tools are needed to clear portions of the alignment, they will be used temporarily and abide by all local regulations intended to address air quality impacts. Specifically, MCAQMD has a set of standard Best Management Practices (BMPs) for projects involving new construction, the use of diesel engine equipment, and grading activities that would result in fugitive dust. While many of these regulations do not apply to this type of project, the Project will adhere to all applicable MCAQMD regulations. In addition, **Mitigation Measure AQ-1**, restricting the burning of removed vegetation, and **Mitigation Measure AQ-2** related to the use off-road equipment were suggested by the MCAQMD and will be implemented, as appropriate.

The nearest uses that are considered "sensitive receptors" (includes schools, child care facilities, health care facilities, senior facilities, and residences) are residences located on Valley View Drive and Maple Avenue, approximately 1,500 feet east of the northern connection to the City View Trail. However, due to the Project's distance from these receptors, limited construction timeframe and implementation of the Mitigation Measures AQ-1 and AQ-2 below, the Project is not anticipated to impact sensitive receptors. In addition, the Project would not exceed the construction thresholds established by the MCAQMD, and air quality impacts associated with short-term construction would be **less than significant with mitigation**. Once completed, the trail will not result in long-term air quality impacts.

The MCAQMD has not established separate significance thresholds for cumulative operational emissions. The nature of air emissions is largely a cumulative impact. As a result, no single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. Instead, a

project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. The MCAQMD developed the operational thresholds of significance based on the level above which a project's individual emissions would result in a cumulatively considerable contribution to the North Coast Air Basin's existing air quality conditions. Therefore, a project that exceeds the MCAQMD operational thresholds would also be a cumulatively considerable contribution to a significant cumulative impact. Because each individual construction project is required to be in attainment with the established MCAQMD thresholds, it is not likely that cumulative impacts would be significant.

Based on the aforementioned, air quality impacts would be **less than significant with mitigation.**

Mitigation Measures:

AQ-1: Vegetation Removal. Vegetation removal methods shall include grinding or chipping larger materials on-site, and/or disposal at the Transfer Station; burning of vegetation shall not be allowed without obtaining the appropriate burn permits.

AQ-2: Diesel Engines – Stationary and Portable Equipment and Mobile Vehicles:

a. Off-road equipment with auxiliary diesel engines rated at 50 brake horsepower or greater, must have either a valid Air Quality permit, or a state Portable Equipment Registration Program (PERP) Registration.

4. Biological Resources

BIOLOGICAL RESOURCES. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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 Wildlife 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 Wildlife 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?	☐	☒	☐	☐

BIOLOGICAL RESOURCES. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐

Significance Criteria: Project impacts upon biological resources would be significant if any of the following resulted: substantial direct or indirect effect on any species identified as a candidate, sensitive, or special status species in local/regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS) or any species protected under provisions of the Migratory Bird treaty Act (e.g. burrowing owls); substantial effect upon riparian habitat or other sensitive natural communities identified in local/regional plans, policies, or regulations or by the agencies listed above; substantial effect (e.g., fill, removal, hydrologic interruption) upon state or federally protected wetlands; substantially interfere with movement of native resident or migratory wildlife species or with established native resident or migratory wildlife corridors; conflict with any local policies/ordinances that protect biological resources or conflict with a habitat conservation plan.

Environmental Setting: Regionally, the Project area (Ukiah Western Hills) has historically been used primarily for recreation, timber harvest, homesite development, and undeveloped open space/wildlife habitat. The hills rise steeply from the valley floor and are predominated by eastern facing slopes. A number of drainages create small sections of north-east and south-east facing slopes. The Project area is almost exclusively in the Quercus (oak) Forest Alliance with areas of Arctostaphylos Shrubland Alliance (consisting of mazanita, chapparal, etc.). In addition, there are small “islands” of Redwood Forrest and Woodland Alliance. According to USDA Forest Service vegetation mapping the regionally dominant vegetation type within the Project area is comprised of Oregon white oak and Pacific Douglas-fir. The nearest creek is Orr Creek, approximately 0.3-mile north of the proposed trail alignment. Additionally, there is an unnamed Class III watercourse in the northern portion of the site, near where the proposed trail would connect to the existing City View Trail. Class III watercourses are categorized as having no aquatic life present, but may be capable of sediment transport to Class I and II waters under normal high water flow.

A Biological Assessment was prepared for the Project by Jacobzsoon and Associates (December, 2021; **Attachment C**). The purpose of the assessment was to identify sensitive communities within the Study Area (defined as the trail alignment, as well as 100 ft within it) and determine the existence or potential occurrence for special-status species. The Biological Assessment is also designed to address the potential for cumulative impacts to biological resources that may occur as a result of the

Project and to make recommendations to reduce or mitigate potential impacts. The Biological Assessment includes the analysis and comparison of existing habitat conditions within the Study Area with the documented range and habitat requirements of sensitive wildlife species described in the California Department of Fish and Wildlife's (CDFW's) California Wildlife Habitat Relationships System (CWHR) to determine if they would be directly or potentially impacted by the Proposed Project. As a part of the assessment a field survey was conducted on November 18, 2021. Prior to conducting the field survey, available reference materials were reviewed, including the United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) Web Soil Survey, the United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI), the Ukiah 7.5'-minute USGS quadrangle topographic map, and the most recent available aerial imagery. The location of streams and watercourses within the Project vicinity were reviewed using datasets from California Streams and the California Department of Forestry and Fire Protection (CAL FIRE). Databases queried for the occurrence of special-status species include the USFWS Information for Planning and Consultation (IPaC), and the California Department of Fish and Wildlife California Natural Diversity Database (CNDDB) Spotted Owl Data Viewer, RareFind and Quick Viewer programs.

In addition, a Botanical Survey was completed by the Ukiah Valley Trail Group and Sanhedrin Chapter of the Native Plant Society (see Appendix F to the Biological Assessment in **Attachment C**) in accordance with recommendations from the California Department of Fish and Wildlife (CDFW) and the California Native Plant Society (CNPS). The survey included a review of the USGS quadrangle of the survey area and the eight surrounding quadrangles to identify special status plant species along two potential trail alignments, including the proposed trail corridor. The CNPS Inventory of Rare and Endangered Plants, the On-line 8th Edition, and Rarefind via the California Natural Diversity Database (CNDDB), as well as the California Rare Plant Ranks (previously known as CNPS Lists) were also used to develop a list of potentially occurring rare plants in the study area. Additionally, four field surveys were conducted in 2019 along a 20-foot wide corridor from the centerline of the proposed flagged trails on the following dates: March 21; April 11; June 8; and July 19. Field surveys were conducted from early spring to mid-summer to include known blooming and fruiting times of potentially occurring rare species, but also to encompass the blooming period of early annuals, wetland plants, and late blooming herbaceous perennial species (generally March through July).

Discussion: (a) Less than significant impact with mitigation incorporated.

Wildlife. According to the biological assessment prepared for the Project, a total of 46 special-status wildlife species have been documented within the larger vicinity of the Project. Of the 46 special-status wildlife species within the vicinity of the Project, 11 special-status wildlife species have a moderate or high potential to occur within the Study Area based on habitat features present. These species include the following:

- Amphibians: red-bellied newt *(Taricha rivularis);*
- *Birds:* northern goshawk (*Accipiter gentilis*), golden eagle (*Aquila chrysaetos),* osprey (*Pandion haliaetus*), northern spotted owl (*Strix occidentalis caurina*);
- Insects: western bumble bee (*Bombus occidentalis*); and
- Mammals: Sonoma tree vole (*Arborimus pomo*), North American porcupine (*Erethizon dorsatum*), western red bat (*Lasiurus blossevillii*), hoary bat (*Lasiurus cinereus*), and fisher [West Coast DPS] (*Pekania pennanti*).

However, no special status wildlife species were observed within the Study Area during the Biological Assessment. The remaining thirty-five (35) special-status wildlife species documented within the vicinity of the Study Area are unlikely to occur or do not have the potential to occur due to lack of

required aquatic or vegetative habitat requirements, host plants, and/or lack of nesting habitat. Additionally, the Study Area does not contain any special-status fish species or fish bearing watercourses or waterbodies, and no special-status fish were observed during the Biological Assessment. The nearest fish-bearing watercourse is a Class I watercourse, Orr Creek, located approximately 2,250 feet northeast of the Study Area. Because no special status wildlife species were observed during the field survey, the Project is not anticipated to result in significant impacts to them. However, this does not preclude the possibility of wildlife species being present at the time of construction or being impacted from vegetation removal or other ground disturbing activities. Tree branch pruning, trimming, and root care activities will be limited to those branches that would represent hazards to hikers or cause extensive detours and additional grading for the trail route. Every effort to re-route the alignment of the trail to avoid the unnecessary removal of trees will be made. Once constructed, UVTG trail maintenance standards require that natural vegetation be permitted to grow back on the sides of the trail and along the shoulder areas to help maintain the trail base and reestablish its original natural appearance. Regardless, Mitigation Measures BIO-1 through BIO-4 which require pre-construction surveys are proposed to ensure impacts to sensitive species (and their habitat) are reduced to less than significant. As such, impacts to special status wildlife species would be **less than significant with mitigation incorporated**.

Plants. Potentially occurring rare plant species identified in the pre-study investigations were limited to Raiche's Manzanita (*Arctostaphylos stanfordiana ssp raichei*) and Redwood lily (*Lilium rubescens*). Although the trail crosses the Arctostaphylos Shrubland Alliance, subspecies rachei was not found along the alignment. However, on both the main proposed corridor and the secondary additional corridor Redwood lily was found. Locations of the species were geotagged and the trail alignment has been modified to avoid the species. Refer to the location map within the Botanical Survey (Appendix F to the Biological Assessment in Attachment C). An additional loop was proposed in the original design, but removed from the plan in response to concerns cited by members of the botanical review team in regard to the potential impact to Redwood lily and other native plants. To ensure that the Project would not impact Redwood lily, **Mitigation Measure BIO-5** requires pre-construction surveys to identify, flag and avoid (if necessary) the species prior to vegetation removal or ground disturbing activities. Impacts to special status plants would be **less than significant with mitigation incorporated**.

In summary, **Mitigation Measures BIO-1 through BIO-5** are proposed to ensure impacts to sensitive species are reduced to less than significant. Therefore, impacts to special status species would be **less than significant with mitigation incorporated**. Please refer to the complete Biological Assessment in **Attachment C** for more information, including a complete analysis of impacts to each of these species.

(b) Less than significant impact with mitigation. Sensitive natural communities include those that are listed in CNDDB as well as observed MCV2 alliances or associations with state rarity ranks of S1-S3 and are listed on CDFW's List of California Sensitive Natural Communities. According to the assessment, the Project site contains the following California Sensitive Natural Community, as designated by CDFW: Quercus garryana Forest & Woodland Alliance, Oregon white oak forest and woodland (CDFW State Rarity Rank: S3 (Vulnerable)). This community is present within the southeastern portion of the proposed trail alignment (see Map 5 within Appendix D of the Biological Assessment). It is recommended that removal of this species be avoided; however, any removal of the Oregon white oak (*Quercus garryana*) shall be done via consultation with the California Department of Fish and Wildlife (CDFW Additionally, it is recommended that nesting bird surveys be conducted for any activities that require vegetation removal between March 1st and August 31st of

any year, as this community may also provide habitat for nesting birds protected by the Migratory Bird Treaty Act (MBTA) and (See **Mitigation Measure BIO-6** and **BIO-4**).

The Project area contains one non-sensitive natural community: Forest & Woodland Alliance: Douglas-fir forest and woodland *(seudotsuga menziesii P)*, which contains a CDFW State Rarity Rank of S4 (Apparently Secure). Non-sensitive natural communities are those communities that are not afforded special protection under CEQA and other Federal, State, and local laws, regulations, and ordinances, but are important to the local ecology. In addition, as discussed in the Project Description, the proposed trail corridor crosses a number of small Redwood groves with dense over growths of young (less than six inches dbh) trees scattered in the shadier areas of drainages. Some immature Redwoods will be removed in order to accommodate the alignment. Immature Redwood trees are not identified as a sensitive natural community, listed in the CDFW State Rarity Ranking system, nor a species requiring special protections under CEQA, or other local, state or federal regulations. However, as noted above, no trees greater than six inches dbh will be removed. The proposed trail corridor crosses one grove of more mature Redwoods with trees up to 30 inches dbh, but the trail will be diverted around it, thus avoiding impacts to the mature Redwoods. As such, impacts to these species would be **less than significant**.

With implementation of the mitigation measures reference above, impacts to sensitive natural communities would be less **than significant with mitigation**.

(c) Less than significant impact with mitigation. Aquatic resources, communities, and habitats (e.g. watercourses, ponds, wetlands, vernal pools, etc.) are considered sensitive communities and are afforded special protections under CEQA and other Federal, State, and local laws, regulations, and ordinances. The proposed trail alignment would cross the unnamed Class III watercourse, which is categorized as having no aquatic life present, but shows evidence of being capable of sediment transport to Class I and II waters under normal high water flow. UVTG plans to complete the work during the dry season and the UVTG Design and Maintenance Standards provide guidance for the construction of trails in the Ukiah Valley to reduce erosion (see **Attachment B** and discussion in Section V.7, Geology and Soils, of this Initial Study). As noted in Mitigation Measure **BIO-7**, the UVTG will assess the entire trail length each winter for the first three years after project completion. Any areas that are damp enough to show foot created depressions after the trail is dried will be assessed and either crossed with a footbridge such as a wooden walkway known as a “puncheon”, be hardened, or use a culvert if a bridge is deemed impractical. If any structures are proposed for placement within the bed or bank in order for the trail crossing, consultation with CDFW shall be required and all necessary permits shall be obtained.

In addition, the proposed trail alignment is located approximately 200 feet south of a mapped Riverine Wetland, a Class II tributary to Orr Creek, according to the USFWS National Wetland Inventory (NWI) (see Map 7 in Appendix D of the Biological Assessment). The wetland is classified as a Riverine habitat (R4SBC). R4SBC is a riverine intermittent system with a streambed and is seasonally flooded. Riverine systems are considered watercourses for the purposes of this assessment. However, there are no recommendations for wetlands are necessary at this time, as the proposed Project will not impact this wetland due to its distance and proximity to the trail alignment.

Impacts to aquatic resources would be **less than significant with mitigation.**

(d) Less than significant impact. There are no established native resident or migratory wildlife corridors, or native wildlife nursery sites within the Project area. As noted above, there are fish bearing streams on-site. Impacts would be **less than significant**.

(e-f) Less than significant impact. There are no adopted Habitat Conservation Plans for the City of Ukiah, nor the larger Ukiah Valley that are applicable to the Project. Impacts would be **less than significant**.

Mitigation Measures:

BIO-1: **Sensitive Amphibian Species**. One (1) special-status amphibian has a moderate or high potential to occur within the Study Area; red-bellied newt *(Taricha rivularis).* A qualified biologist shall survey the area prior to any groundbreaking or dewatering activities to determine the presence of Red-belly newt, or other sensitive amphibian species, and identify additional avoidance measures, if needed.

BIO-2: Special-Status Mammals. Five (5) special-status mammal species have moderate or high potential to occur within the Study Area. These species include the Sonoma tree vole (*Arborimus pomo*), North American porcupine (*Erethizon dorsatum*), western red bat (*Lasiurus blossevillii*), hoary bat (*Lasiurus cinereus*), and fisher [West Coast DPS] (*Pekania pennanti*). Pre-construction surveys shall be conducted by a qualified Biologist prior to any vegetation removal or ground disturbing activities. If evidence of bat roosts is observed (i.e. bat guano, ammonia odor, grease stained cavities) around trees or structures, pre-construction bat surveys shall be conducted by a qualified biologist for activities that may affect bat roosting habitat and den sites.

BIO-3: Special-Status Insects. One (1) special-status insect species has moderate or high potential to occur within the Study Area; western bumble bee (Bombus occidentalis). A qualified Biologist shall survey the area prior to any groundbreaking activities to determine the presence of special-status insect species and identify additional avoidance measures if needed. If a special-status insect nests are observed, active nests shall not be removed, relocated, or otherwise disturbed until the nest becomes inactive.

BIO-4: Nesting Birds. Four (4) special-status avian species have moderate or high potential to occur within the Study Area. These species include northern goshawk (*Accipiter gentilis*), golden eagle (*Aquila chrysaetos),* osprey (*Pandion haliaetus*), and northern spotted owl (*Strix occidentalis caurina*). Pre-construction surveys shall be conducted by a qualified Biologist prior to any vegetation removal or ground disturbing activities occurring between March 1 and August 31 of any year. All active bird nests shall not be removed, relocated, or otherwise disturbed for any purpose until all fledglings have left the nest.

BIO-5: Special Status Plants. One (1) special status plant, Redwood lily (*Lilium rubescens*), was observed within the proposed trail alignment and the secondary additional alignment. U.S. Fish and Wildlife (USFWS) protocol-level sensitive plant species surveys for Redwood lily (within the blooming period (generally March-August) shall be conducted by a qualified Biologist prior to any ground disturbing activities to verify the presence of special status plants. Plant locations will be flagged and a 25-foot, 50-foot or 100-foot no disturbance zone shall be established to avoid the species. Data shall be submitted to the CNDDB database and additional mitigation will be identified if needed, in coordination with CDFW and USFWS.

BIO-6: Oregon White Oak Forest. Any removal of the Oregon white oak (*Quercus garryana)* shall be done via consultation with the California Department of Fish and Wildlife (CDFW); all work within this community shall adhere to CDFW recommendations. In addition, nesting bird surveys shall be conducted prior to commencing any activities that require vegetation removal between March 1st and August 31st of any year (refer to Mitigation Measure BIO-4). Lastly, although not required, other management considerations for the preservation of this community include thinning or removal of conifer species within the stand in accordance with local laws, regulations, and ordinances. Such thinning could limit the possibility of vegetation type conversion to closed-canopy woodlands and conifer forest and inhibit the development of fuel ladders that increase the potential for stand-replacing fires.

BIO-7: Watercourses. The Project shall adhere to UVTG Design and Maintenance Standards for trail construction related to erosion, and all earthwork within or adjacent to (50 feet) any watercourse or other body of water shall adhere to standard methods of erosion and sediment control (placement of straw, mulch, seeding, straw wattles, silt fencing, etc.) and, if possible, work shall be completed while the channel is dry to reduce sediment load downstream. The UVTG shall assess the entire trail length each winter for the first three years after project completion. Any areas that are damp enough to show foot created depressions after the trail is dried will be assessed and either crossed with a footbridge such as a wooden walkway known as a "puncheon", or be hardened, or diverted with a culvert if a bridge is deemed impractical. If any structures are proposed for placement within the bed or bank in order for the trail crossing, consultation with CDFW shall be required and all necessary permits shall be obtained.

5. Cultural Resources

CULTURAL RESOURCES. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☒	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☒	☐

Significance Criteria: The proposed Project would significantly impact cultural resources if the significance of a historical or archaeological resource were substantially changed, or if human remains were disturbed.

Under CEQA, cultural resources must be evaluated to determine their eligibility for listing in the California Register of Historic Resources (CRHR). If a cultural resource is determined ineligible for

listing on the CRHR the resource is released from management responsibilities and a project can proceed without further cultural resource considerations.

As set forth in Section 5024.1(c) of the Public Resources Code for a cultural resource to be deemed "important" under CEQA and thus eligible for listing on the California Register of Historic Resources (CRHR), it must meet at least one of the following criteria:

1) Is associated with events that have made a significant contribution to the broad patterns of California History and cultural heritage; or
2) Is associated with the lives of persons important to our past; or
3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possess high artistic value; or
4) Has yielded or is likely to yield, information important to prehistory or history.

Archaeological resources are commonly evaluated with regard to Criteria 4 (research potential). Historic-era structures older than 50 years are most commonly evaluated in reference to Criteria 1 (important events), Criteria 2 (important persons) or Criteria 3 (architectural value). To be considered eligible under these criteria the property must retain sufficient integrity to convey its important qualities. Integrity is judged in relation to seven aspects including: location, design, setting, materials, workmanship, feeling, and association.

Guidelines for the implementation of CEQA define procedures, types of activities, persons, and public agencies required to comply with CEQA. Section 15064.5(b) prescribes that project effects that would "cause a substantial adverse change in the significance of an historical resource" are significant effects on the environment. Substantial adverse changes include both physical changes to the historical resource, or to its immediate surroundings.

Public Resources Code Section 21083.2 also defines "unique archaeological resources" as "any archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and show that there is a demonstrable public interest in that information.
- Has a special and particular quality, such as being the oldest of its type or the best available example of its type.
- Is directly associated with a scientifically recognized important prehistoric or historic event or person."

This definition is equally applicable to recognizing "a unique paleontological resource or site." CEQA Section 15064.5 (a)(3)(D), which indicates "generally, a resource shall be considered historically significant if it has yielded, or may be likely to yield, information important in prehistory or history," provides additional guidance.

Assembly Bill 52 (effective on July 1, 2015) requires that before a negative declaration, mitigated negative declaration, or environmental impact report for a project is prepared, the lead agency for the project must seek consultation with tribes associated with the location of the project. To receive referrals, each tribe must have previously made a written request to the lead agency in order to be consulted on projects occurring in their geographic areas of interest. The Guidiville Rancheria of California is the only tribe that has made such request. As such, an AB 52 notice was sent to them on September 27, 2021; no responses were received.

Environmental Setting: The Ukiah Township lies in a valley of the Russian River, bounded on the north by Calpella Township, on the east by Lake County, on the south by Sanel Township, and on the west by Anderson Township. The City of Ukiah was first settled in 1856 by Samuel Lowry. Initially incorporated into Sonoma County, an independent Mendocino County government was established in 1859 with Ukiah as the chosen county seat. Logging, cattle, and agricultural ventures contributed to the early settlement and growth of Ukiah throughout the remainder of the 19th century and early 20th century. 1889 is the date recorded for the first arrival of the train to Ukiah, quickly resulting in increased settlement of the City and its environs. The City of Ukiah is within the territory of the Northern Pomo. Permanent villages were often established in areas with access to staple foods, often times along eco-tones (transitions between varying environments), with access to good water, and generally flat land (Environmental Science Associates, 2013).

The late 19th century saw slow growth in the community, with a slight decline after the turn of the century. The 1906 earthquake damaged a number of Ukiah buildings, particularly in the commercial core, and considerable re-building and remodeling activity occurred after that time. The City appears to have prospered in the following years, through the early 1920's. The City contains a number of Colonial Revival and Craftsman style derivations, popular during this era, that reflect the community's prosperity. An Historical and Architectural Survey Update was last prepared for the City by P.S. Preservation Services in 1999. The survey identified 23 properties with historic importance within the City limits. City Ordinance No. 838 was passed by the City in 1983, requiring that prior to the demolition of any building over 50 years old, the approval of the City Council must be obtained. The ordinance is a positive preservation tool, allowing some review and public input opportunity regarding the potential loss of historically significant buildings.

Discussion: (a) No impact. On June 22, 2021, the City requested a records search at the Northwest Information Center (NWIC) located on the campus of Sonoma State University. The NWIC, an affiliate of the State of California Office of Historic Preservation is the official state repository of cultural, archaeological and historical records and reports for an 18-county area that includes Mendocino County. The records search included a review of all study reports on file within a one-half mile radius of the Project area. A review of historic registers and inventories indicate that no historical landmarks or points of interest are present in the Project area. In addition, no National Register listed or eligible properties are located within the Project area. Therefore, the Project would not cause a substantial adverse change in the significance of a historical resource as defined in §15064.5. **No impact.**

Discussion: (b) Less than significant impact. The NWIC records search also included a search of cultural resources included a one-quarter-mile radius. The records search indicated that a cultural resources study has not been completed on-site. However, as noted in the City's General Plan Historic and Archeological Resources Element (1995), the Project site is not identified as an area of high cultural sensitivity; areas that are most typically culturally sensitive include those adjacent to streams, springs, and mid-slope benches above watercourses because Native Americans and settlers favored easy access to potable water. Because the Project has been designed with minimal ground disturbance and the site does not have a high potential for cultural resources to occur, less than significant impacts would occur as a result of the Project. Additionally, construction of the Project will be required to adhere to CEQA Guidelines Section 15064.5 (e-f) which specifically addresses what to do in the event that human remains or archeological resources are accidentally discovered.

As noted above, in accordance with AB 52, a notification proving the opportunity for consultation was sent to the Guidiville Rancheria of California but no response requesting formal consultation was received. Impacts to cultural and archeological resources would be **less than significant.**

Mitigation Measures: None

6. Energy

ENERGY. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

Significance Criteria: The Proposed Project would significantly impact energy if construction or operation of the Project would result in wasteful, inefficient or unnecessary consumption of energy resources or if the Project would conflict with a state or local plan for renewable energy or energy efficiency.

Environmental Setting: Senate Bill 100 (SB 100, De León, Chapter 312, Statutes of 2018), the state's landmark policy requiring that renewable and zero-carbon energy resources supply 100 percent of electric retail sales to customers by 2045. The bill was signed into law in 2018 and calls for these resources to replace fossil fuels for generating electricity in the state. According to the California Air Resources Board (CARB), California has already made significant progress toward a clean energy future. Due to many efforts that promote renewable energy, energy efficiency and the storage technologies needed to retire fossil fuel resources, the state's electricity mix is already more than 60 percent carbon free. Approximately 36 percent of that comes from renewable sources, predominantly wind and solar. Specific to construction projects, CARB and the Environmental Protection Agency (EPA) standards regulate energy consumption through Green Budling Standards to ensure construction does not result in wasteful, inefficient or unnecessary consumption of energy resources.

Discussion: (a-b) Less than significant impact. Fossil fuels for construction vehicles and other energy-consuming equipment would be used during vegetation removal and trail construction. However, fuel energy consumed during construction would be temporary and would not represent a significant demand on energy resources. Project construction equipment would also be required to comply with the latest CARB and EPA engine emissions standards which require highly efficient combustion systems that maximize fuel efficiency and reduce unnecessary fuel consumption. Once constructed, the trial would not consume any sources of energy. With adherence to the aforementioned regulations, impacts from the Proposed Project related to energy consumption would be **less than significant**.

Mitigation Measures: None

7. Geology and Soils

GEOLOGY AND SOILS. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

Significance Criteria: The Proposed Project would result in a significant impact to geological or soil resources if it exposed people or structures to seismic risk; ruptured a known fault; produced strong seismic ground shaking, ground failure, liquefaction, landslides or substantial soil erosion; is located on expansive soil or unstable ground, or would create unstable ground; or destroyed a unique paleontological resource or geologic feature.

Environmental Setting: The Ukiah Valley is part of an active seismic region that contains the Mayacama Fault, which traverses the valley in a generally northwest-southeast direction east of the

Project area. Based on California Geological Survey maps and the Background Report for the County of Mendocino General Plan Update (prepared by P.M.C., 2003), lands within the Western Hills are identified as being located on a somewhat unstable geologic formation but are not located within the Alquist Priolo Fault Zone, or in a landslide or liquefaction zone. In addition, according to the U.S. Geological Survey (USGS) Interactive Fault Map, there are no faults identified within the Project area.

The Project area is located at approximately 1,000-1,400 feet in elevation and is situated within the Coast Range geologic province. The North Coast Range is comprised of a geologic feature unique to California, the Franciscan Formation, which dictates the vegetative communities. The Franciscan Formation is comprised of serpentine, sandstone, and other sedimentary rocks. The soils within the Project site are characterized as both Hopland, which consist of consists of very deep, well drained soils formed in colluvium and residuum weathered from sandstone or shale on steep hills and slopes (50 to 75 percent), and Maymen soils that are shallow, somewhat excessively drained soils that formed in residuum weathered from shale, schist, greenstone, sandstone and conglomerate. These soils have a shallow depth to bedrock.

Discussion: (a, c & d) No Impact. As noted above, the Project site does not contain earthquake faults. The site does not contain expansive or unstable soils and is not susceptible to landslides, nor strong seismic ground shaking. Lastly, the Project has been designed with minimal ground disturbance. Impacts to geology and soils related to these issues would be **less than significant**.

(b) Less than significant impact. Development and use of the proposed trail, if not carefully performed, has the potential to cause erosion. Trail grades are typically 7-8 percent, with some switchback grades along the steeper sections of hillside with slopes of 12 percent for very short sections of the trail. The UVTG Design and Maintenance Standards (**Attachment B**) provide guidance for the construction of trails in the Ukiah Valley to reduce erosion. These standards include, but are not limited to, the following:

- Construction of trails that are three feet wide, or less if physical constraints are present, to reduce the disturbance footprint;
- Trails should be built with the contour of the topography (± 10%) to allow for sheet flow drainage and minimize concentrated runoff;
- Average trail grade of less than10%, with short sections over 10% and followed by a relatively flat section or grade reversal;
- Grade of the trail should not be greater than half the grade of the side slope the trail traverses to prevent erosion caused by water flowing down the trail rather than down the hillside;
- Maximum trail grades of less than 15% wherever possible to reduce the potential for erosion and user damage;
- Incorporation of grade reversals every 10 to 50 feet to provide areas for water to drain off trails;
- Outer edges of trails should be built and maintained with a 3-5% outslope to create sheet flow; and
- Build in a backslope where the area uphill of the trail is sloped upward from the trail to prevent a waterfall effect that creates concentrated flow on the trail.

Trail construction is anticipated to take approximately two weeks and will be scheduled during optimal weather and soil moisture conditions in order to reduce the duration that soils are exposed to water-borne erosion.

For the above reasons, impacts to geology from the loss of topsoil or erosion would be **less than significant.**

(e) No impact. No septic tanks or other waste water disposal systems are proposed. **No impact**.

(f) Less than significant impact. The geology of the Western Hills area is of the Franciscan Complex that dates to the Jurassic Period, approximately 199.6 to 145.5 million years ago. The Franciscan complex consists of arkosic sandstone interbedded within shale. Arkose is a coarse and well sorted quartz with a fine-grained matrix. Additionally, the Franciscan Complex can include rocks such as chert, serpentinite, basalt, and greenstone. The Franciscan complex, widespread in coastal California, has produced only small collections of significant fossils. Additionally, construction of the trail would only disturb the first few feet of soil where fossils are generally not known to be found. Therefore, the Project would not destroy unique paleontological resources or site or unique geologic features. Impacts would be **less than significant.**

Mitigation Measures: None

8. Greenhouse Gas Emissions

GREENHOUSE GAS EMISSIONS. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Significance Criteria: The Project would have a significant effect on greenhouse gas emissions if it would generate greenhouse gas emissions (GHG), either directly or indirectly, that may have a significant impact on the environment; or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

Environmental Setting: Climate change is caused by greenhouse gases (GHGs) emitted into the atmosphere around the world from a variety of sources, including the combustion of fuel for energy and transportation, cement manufacturing, and refrigerant emissions. GHGs are those gases that have the ability to trap heat in the atmosphere, a process that is analogous to the way a greenhouse traps heat. GHGs may be emitted a result of human activities, as well as through natural processes. Increasing GHG concentrations in the atmosphere are leading to global climate change.

Carbon dioxide (CO_2) is the most important anthropogenic GHG because it comprises the majority of total GHG emissions emitted per year and it is very long-lived in the atmosphere. Typically, when evaluating GHG emissions they are expressed as carbon dioxide equivalents, or CO_2e, which is a means of weighting the global warming potential (GWP) of the different gases relative to the global

warming effect of CO_2, which has a GWP value of one. In the United States, CO_2 emissions account for about 85 percent of the CO_2e emissions, followed by methane at about eight percent, and nitrous oxide at about five percent.

The state of California has adopted various administrative initiatives and legislation relating to climate change, much of which set aggressive goals for GHG emissions reductions statewide. Although lead agencies must evaluate climate change and GHG emissions of projects subject to CEQA, the CEQA Guidelines do not require or suggest specific methodologies for performing an assessment or specific thresholds of significance and do not specify GHG reduction mitigation measures. No state agency has developed binding regulations for analyzing GHG emissions, determining their significance, or mitigating significant effects in CEQA documents. Thus, lead agencies exercise their discretion in determining how to analyze GHGs. Because there are no adopted GHG thresholds applicable to the Project, and because the Project is considered "small scale", meaning that it does not include new large structures or components requiring significant construction that would result in increased GHGs, the below qualitative analysis is appropriate.

Discussion: (a-b) Less than significant impact. Although the Project will mostly use hand tools, trail construction activities requiring the use of occasional power tools could result in direct GHG emissions from construction equipment and vehicle trips. However, construction will be temporary (up to two weeks) and subject to EPA and CARB energy efficiency regulations, as well as regulations of the Mendocino County Air Quality Management District (MCAQMD) intended to reduce dust, air pollution, and emissions. Due to the Project's location, the majority of trail users are expected to access the trailhead by both vehicle and alternate modes of travel (bicycle, on foot, etc.) which will increase vehicle trips to the site over current levels. While the actual number of trail users is not known, the number of users is not anticipated to be significantly higher than the current number of users. As discussed in Section 17, Transportation, the Project would not result in a significant number of traffic trips or vehicle miles traveled. Therefore, impacts would be **less than significant**.

Mitigation Measures: None

9. Hazards and Hazardous Materials

HAZARDS AND HAZARDOUS MATERIALS. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐

HAZARDS AND HAZARDOUS MATERIALS. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☒	☐
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☒	☐	☐

Significance Criteria: The Project would result in significant hazards or hazardous materials impacts if it exposed people to hazardous materials or placed them into hazardous situations; if it released hazardous materials or emissions into the environment or within 0.25 miles of a school; if it is located on a listed hazardous materials site; if it would create a hazard due to its proximity to a public airport or private airstrip; if it would create excessive noise for people in the area; if it would interfere with an emergency response or evacuation plan; or if it would expose people or structures to significant risks due to wildland fire.

Environmental Setting: Mendocino County has adopted numerous plans related to hazard management and mitigation including, but not limited to: Community Wildfire Protection Plan, Hazardous Waste Management Plan, Operational Area Emergency Plan, etc. The most recent plan, the Mendocino County Multi-Jurisdictional Hazard Mitigation Plan (MJHMP) was adopted by the County in December, 2020. The MJHMP provides an explanation of prevalent hazards within the County, identifies risks to vulnerable assets, both people and property, and provides a mitigation strategy to achieve the greatest risk reduction based upon available resources. The four cities within Mendocino County, including the City of Ukiah, participated in preparation of the MJHMP to individually assess hazards, explore hazard vulnerability, develop mitigation strategies, and create their own plan for each respective city (referred to as a "jurisdictional annex" to the MJHMP). The City of Ukiah adopted its jurisdictional annex chapter of the MJHMP on November 18, 2020. Hazards identified for the City if Ukiah include earthquakes, wildfire, dam failure, flood and pandemic. Table 1-13 of the City's jurisdictional annex lists each hazard and mitigation action for City of Ukiah.

The Ukiah Municipal Airport is located within the City of Ukiah jurisdictional limits. The Ukiah Municipal Airport Land Use Compatibility Plan (UKIALUCP) was adopted by the Mendocino County Airport Land Use Commission on May 20, 2021 and adopted by the Ukiah City Council on June 16, 2021. The

UKIALUCP identifies areas (known as “compatibility zones”) with potential hazards and impacts to persons using or working within the vicinity of the airport.

The site does not include any known hazardous waste sites, as mapped by the State Water Resources Control Board (SWRCB) or the California Department of Toxic Substances Control (DTSC) on the GeoTracker and EnviroStor databases, respectively, nor are there any listed sites within the vicinity of the site.

All lands within the City of Ukiah are within the jurisdiction of the Ukiah Valley Fire Authority. None of the lands within the City of Ukiah are located within a California Department of Forestry (CalFire) State Responsibility Area (SRA). However, some parcels within the western boundary of the City limits, including the Project site, are designated as “Very High” fire severity within the Local Responsibility Area (LRA).

Discussion: (a-b) Less than significant impact. Construction activities limited to the use of powered equipment, as needed, may include the routine transport, use, storage, and disposal of small quantities of common hazardous materials, such as gasoline, diesel fuel, hydraulic fluids, and oils. However, the types and quantities of materials to be used are not expected to pose a significant risk to the public and/or environment and would be managed in accordance with federal, state, and local regulations. Impacts would be **less than significant.**

(c) Less than significant impact. Ukiah High School and Pomolita Middle School are located more than one-half mile away from the proposed trail alignment and as noted above, the use of hazardous materials for construction would be in accordance with all applicable regulations; impacts would be **less than significant**.

(d) No impact. As previously noted, under Government Code Section 65962.5, both the State Water Resources Control Board and the California Department of Toxic Substances Control are required to maintain databases of sites known to have hazardous substances present in the environment. Both agencies maintain such databases on their websites, known as GeoTracker and EnviroStor. According to these databases, the Project site(s) do not contain any listed hazardous sites; **no impact** would occur.

(e) Less than significant impact. The Project parcel is located approximately 1.86 miles northwest of the Ukiah Municipal Airport within the Other Airport Environs (OAE) Compatibility Zone of the UKIACLUP, which is identified as having a low risk level associated with airport operations. Occasional overflights may be intrusive to some outdoor activities but the OAE zone does not contain any regulations regarding intensity of use or other standards specific to airport safety concerns that would be applicable to the Project. According to Table 3A of the UKIALUCP, most land-use categories, including recreation facilities, parks and open land areas are considered normally compatible in the OAE compatibility zone. Based on this information, the Project would not result in a safety hazard or excessive noise for people residing or working in the Project area. Impacts would be **less than significant.**

(f) Less than significant impact. There are no components of the Project that would impair or interfere with emergency response or evacuation. The proposed trail would be accessed from an existing park and parking lot. There are no components of the Project that would impair implementation of, or physically interfere with, the adopted MJHMP or other emergency response plan or evacuation plan. Impacts would be **less than significant**.

(g) Less than significant impact with mitigation incorporated. As previously noted, the Project site is designated as having a "Very High" fire severity within a Local Responsibility Area (LRA). However, the use of the Proposed trail would not substantially increase the risk of wildfire in the area. Temporary construction activities involving the occasional use of gasoline-powered tools and equipment could introduce new temporary sources of ignition that could increase fire risk. However, with implementation of Mitigation Measure HAZ-1, impacts would be reduced to less than significant. For the reasons stated, the Project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires. See Section V.20, Wildfire, for more information. Impacts would be **less than significant with mitigation incorporated.**

Mitigation Measures:

HAZ-1: Should portable gasoline-powered equipment be used on site, the following firesafe precautions shall be taken:

a. Spark arresters are required on all portable gasoline-powered equipment.
b. Equipment shall be maintained in good working condition, with exhaust systems and spark arresters in proper working order and free of carbon buildup.
c. Fuel the equipment in a safe place where spills can be contained and a fire extinguisher is nearby. Use the recommended gas/oil mixture and do not top off. Use a funnel or spout for pouring. Wipe off any spills.
d. Do not refuel running or hot equipment. Dispense fuel at least 10 feet from sources of ignition.
e. Do not use equipment in areas of dry vegetation. Keep leaves and dry materials away from a hot muffler.
f. No smoking or open flame allowed near gasoline-powered equipment.

10. Hydrology and Water Quality

HYDROLOGY AND WATER QUALITY: Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☐	☒
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	☐	☒	☐	☐
i) result in a substantial erosion or siltation on- or off-site;	☐	☒	☐	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

Significance Criteria: The Project would significantly impact hydrology and water quality if it violated water quality standards or waste discharge requirements or substantially degraded surface or groundwater quality; substantially decreased groundwater supplies or impeded sustainable groundwater management; altered drainage patterns in a manner that would cause substantial on- or off-site erosion, polluted runoff or excessive runoff that caused flooding; impeded or redirected flood flows; risked a release of pollutants due to inundation if in a flood hazard, tsunami or seiche zone; or conflicted with a water quality plan or sustainable groundwater management plan.

Environmental Setting: Average rainfall in Ukiah is slightly less than 35 inches. Most of the precipitation falls during the winter. Rainfall is often from brief, intense storms, which move in from the northwest. Virtually no rainfall occurs during the summer months.

The Project area includes the Russian River Hydrologic Unit, Upper Russian River Hydrologic Area, Ukiah Hydrologic Subarea. The Russian River is on the State Water Resources Control Board's

(SWRCB) 303(d) list of impaired water bodies for water temperature and sedimentation/siltation. Sediment impairments in tributaries led to listing the entire Russian River Watershed for sediment. Surface water supplies for the Ukiah Valley include the Eel River, from which water is diverted into the Russian River watershed through the Potter Valley Project, Lake Mendocino, and the Russian River. Groundwater is drawn from the Ukiah Valley groundwater basin. The Ukiah Valley groundwater basin is the northernmost basin in the Russian River water system and underlies an area of approximately 60 square miles. Water enters the groundwater system via percolation of surface waters and through the soil. The creeks and streams in the Ukiah Valley provide drainage channels for groundwater recharge, as well as domestic and agricultural water supply. The City of Ukiah 2020 Urban Water Management Plan (UWMP) was adopted by City Council on June 2, 2021. The UWMP considers several growth scenarios including an additional 2,500 and 5,000 new hookup scenarios and determined that there is capacity through the 2045 planning horizon to serve these growth projections.

Discussion: (a-b & e) No impact. No groundwater would be used for construction or operation of the trail. Existing restrooms and water faucet facilities are provided in Low Gap Park for trail users; no new facilities are proposed. The Project would not require water to be discharged and groundwater would not be impacted by the Project. **No impact**.

(ci-iii) Less than significant impact with mitigation. As discussed in Section V.4, Biological Resources, the proposed trail alignment would cross an unnamed Class III watercourse, which is categorized as no aquatic life present, but shows evidence of being capable of sediment transport to Class I and II waters under normal high water flow. However, UVTG plans to complete the work during the dry season and will implement the UVTG Design and Maintenance Standards which provide guidance for the construction of trails to reduce erosion. Specifically, the trail will be 2 to 4 feet wide, back sloped to create an angle of repose to the greatest extent possible, and built with a 3 to 5 percent outslope and rolling dips. This method also allows the construction of the three percent out-slopes and tapered shoulders that are designed to maintain the original sheet drainage patterns over the trail and reduce erosion and subsequent maintenance see **Attachment B** and discussion in Section V.7, Geology and Soils, of this Initial Study). As described in Section V.4, Biological Resources and noted in Mitigation Measure BIO-7, should persistent wet areas be noted in the first three years after project completion, the trail will be hardened or a footbridge will be constructed outside of the bed and bank of the watercourse to avoid impacts to it. Standard methods of erosion and sediment control will be implemented to reduce potential sediment loads downstream. If any structures are proposed for placement within the bed or bank in order for the trail to cross the watercourse, consultation with CDFW shall be required and all necessary permits shall be obtained. Lastly, trail construction is anticipated to take approximately two weeks and will be scheduled during optimal weather and soil moisture conditions in order to reduce the duration that soils are exposed to water-borne erosion. As such, impacts associated with erosion and water quality would be **less than significant with mitigation.**

(d) No impact. The Project is not located within a tsunami hazard zone, nor a flood zone, as identified by the Federal Emergency Management Agency. **No impact** would occur.

Mitigation Measures:

Implementation of **BIO-7**

11. Land Use and Planning

LAND USE AND PLANNING. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☒	☐
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

Significance Criteria: The Project would significantly impact land use if it physically divided an established community or conflicted with a land use plan, policy or regulation intended to avoid or mitigate an environmental impact, such as the general plan or zoning code.

Environmental Setting: The City of Ukiah includes approximately 4.72 square miles. It serves as the County Seat of Mendocino County, as well as the county's commercial hub. Predominant land uses in the City include single-family residential, multi-family residential, and commercial uses ranging from local commercial to service commercial, as well manufacturing, industrial and public facilities.

The City of Ukiah is governed by the City's General Plan, which was originally adopted in 1995, and currently in the process of being updated. Because the 2040 General Plan has not been adopted, the 1995 General Plan is the applicable plan relating to land use within the City. More specifically, zoning and land use are governed by the City's Zoning Ordinance, as outlined in Division 9, Chapter 2 of the Ukiah City Code. The purpose of the Ukiah Zoning Code is to promote the growth of the City in an orderly manner and to promote and protect the public health, safety, peace, comfort and general welfare. The larger Ukiah Valley is governed by the Ukiah Valley Area Plan (UVAP; 2011), which is a comprehensive and long range inter-jurisdictional planning document that represents the vision and foresight of the people who live and work in the Ukiah Valley. This plan governs land use and development on the unincorporated lands in the Ukiah Valley.

Discussion: (a) Less than significant impact. Physical division of an existing community would typically be associated with construction of a new highway, railroad, park or other linear feature being constructed in a manner that would bifurcate an established neighborhood or community. Because the Project site does not contain any residences and the Project proposes to construct an additional loop from an existing trail in a park that would not bifurcate an existing neighborhood or community, the Project would result in the division of an established community. Impacts would be **less than significant**.

(b) Less than significant. The 46-acre parcel is owned by the City of Ukiah and is currently used for public/recreation uses. The Project site is zoned Single-Family Residential-Hillside Overlay District (R1-H) and carries a General Plan Designation of Rural Residential (RR). The –H Overlay District is intended to encourage planning, design, and development while preserving natural physical features and minimizing potential safety, water runoff and soil erosion concerns associated with the natural terrain. Development of public trails are not specifically listed. However, maintenance activities, including vegetation removal and tree pruning, are listed as allowed uses. Further, the Project site is currently used for recreational purposes (golf course), and would be accessed via existing recreational

trails connecting to Low Gap Park. Because the parcel is City-owned and currently used for recreational and public purposes, it will not be developed with residential development under the R1H zoning district. The Project would be consistent with on-site and adjacent public/recreation land uses, would not be detrimental to surrounding residences, nor would it prohibit the potential development of residences on privately-owned property in the area. Accordingly, it was determined that the public hiking trail is an "allowed" use and does not require discretionary review under the R1H zoning district. This determination is consistent with the determination that was made for the original City View Trail, which was developed on the adjacent R1-H zoned parcel.

The Project supports the Parks and Recreation Element of the 1995 General Plan, which encourages maintenance of existing facilities, as well as development of new facilities. Specifically, the Parks and Recreation Element identifies publicly-owned property as preferable lands for developing hiking trails. Additionally, the Project is consistent with the following Parks and Recreation Element goal, policy, and implementation measures relating to the development of trails within the city:

Goal PR-9: Establish future routes for public trails in the Planning Area.

Policy PR-9.1:	Make use of existing public lands for public access prior to developing or purchasing other private lands for trails.
Implementation Measure PR-9.1(a):	Develop hiking trails, river access, or other trails on existing publicly-owned lands, lands voluntarily offered to public agencies, or lands converted from a resource production use to a non-resource production use by way of a discretionary permit approval, prior to purchasing new private lands for trails or developing trails on non-publicly owned lands.
Implementation Measure PR-9.1(b):	Route selection shall provide for a network of trails, allowing for unconnected segments due to long-term impediments to the continuous trail – such as private land ownership, environmentally sensitive areas, existing land uses, and public safety – including law enforcement issues.

In 2015, the Ukiah Valley Trail Group developed the Low Gap Park Trail Plan, which identifies existing trails within the park, issues and recommendations for existing trails, as well opportunities for new trails; the proposed Upper City View Trail was one of the trails identified in the plan as a new potential trail. Lastly, although the Project is located within the northwestern most portion of the City limits, it supports the Ukiah Valley Area Plan by providing more recreational facilities to serve residents of the larger Ukiah Valley.

Based on the aforementioned, the Project is consistent with all applicable land use plans and regulations; the Project would not result in a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Impacts would be **less than significant**.

Mitigation Measures: None

12. Mineral Resources

MINERAL RESOURCES. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Significance Criteria: Impacts to mineral resources would be considered significant if the proposed Project were to result in the loss of a known mineral resource that has value to the region and state or is otherwise locally important as designated on a local land use plan.

Environmental Setting: The most predominant of the minerals found in Mendocino County are aggregate resource minerals, primarily sand and gravel, found along many rivers and streams. The Ford Gravel Bars are located in Ukiah, along the Russian River.

Discussion: (a-b) No impact. There are no identified mineral resources within the Project area. No impact would occur.

Mitigation Measures: None

13. Noise

NOISE. Would the project result in:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Generation of excessive ground borne vibration or ground borne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels	☐	☐	☒	☐

Significance Criteria: The Project would have a significant impact if it temporarily or permanently exceeded local noise standards in the vicinity of the Project, generated excessive ground borne noise or vibration; or would expose people residing or working in the area to excessive noise levels from public airports or private airstrips.

Environmental Setting: The Ukiah City Code does not contain thresholds for analyzing noise impacts from construction-related noise but guidance documents from the Federal Highway Administration and the Federal Highway Administration provide information on maximum noise and vibration levels associated with construction equipment and thresholds of significance for analyzing such impacts.

Although the Ukiah City Code does not contain thresholds of significance for analyzing construction-related noise, UCC §6054, *Construction of Buildings and Projects*, states that it shall be unlawful for any person within a residential zone, or within a radius of five hundred feet (500') therefrom, to operate equipment or perform any outside construction or repair work on buildings, structures or projects or to operate any pile driver, power shovel, pneumatic hammer, derrick, power hoist or any other construction type device (between the hours of 7:00 p.m. of one day and 7:00 a.m. of the next day) in such a manner that a reasonable person of normal sensitiveness residing in the area is caused discomfort or annoyance unless beforehand a permit therefor has been duly obtained from the Director of Public works.

The UCC's Noise Ordinance (Division 7, Chapter 1, Article 6) that establishes ambient base noise level standards that apply to specific zoning districts within the City of Ukiah. These are specific to operation (not construction). "Ambient noise" is the all-encompassing noise associated with a given environment, being usually a composite of sounds from many sources near and far. For the purpose of the Noise Ordinance, ambient noise level is the level obtained when the noise level is averaged over a period of fifteen (15) minutes without inclusion of noise from isolated identifiable sources, at the location and time of day near that at which a comparison is to be made. Land uses exceeding these standards for long periods of time are considered to be significant.

Discussion: (a) Less than significant impact. Construction activities are generally temporary, resulting in periodic increases in the ambient noise environment and generally occur when construction activities occur in areas immediately adjoining noise-sensitive land uses, during noise-sensitive times of the day, or when construction activity occurs at the same precise location over an extended period of time (e.g., pile driving in one location for 8-10 hours in a day, or over a duration of several successive days). Certain land uses are particularly sensitive to noise, including schools, hospitals, rest homes, long-term medical and mental care facilities. Residential areas are also considered noise sensitive, particularly during the nighttime hours.

The nearest sensitive receptors are residences located on Valley View Drive and Maple Avenue, approximately 1,500 feet east of the northern connection to the City View Trail. Although trail construction is anticipated to be completed by hand tools (McLeod, pulaski, axe, pick, pole saw, hand saw, loppers, shovel, etc.), different trail construction methods and tool will be utilized to accommodate the varied topography, vegetation, and other natural conditions on the Project site; this may include the use of power equipment tools as conditions require and opportunity allows such as chainsaws, power wheel barrows, vibra-plates, jackhammers, or small trail dozers designed specifically for trail building. According to the Federal Highway Administration's *Roadway Construction Noise Model User's Guide* (2006), maximum noise levels associated with these tools range from 73 to 89 decibels

(dBA). The operation of each piece of equipment along the trail alignment would not be constant throughout the day, as equipment would be turned off when not in use. Over a typical work day, equipment would operate at different locations on the Project site and would not always be operating concurrently.

There are no quantitative standards for construction noise specified by either the Ukiah General Plan or the UCC. However, UCC Section 6054 restricts construction activities within a residential zone, or within a radius of 500 feet therefrom, to the hours of 7:00 a.m. and 7:00 p.m. Similarly, the Federal Transit Administration's *Transit Noise and Vibration Impact Assessment Manual* (2018) identifies a daytime noise levels of over 90 dBA for extended periods of time as a noise level where adverse community reaction could occur at residential land uses within 500 feet of the noise. As noted above, the nearest residence is approximately 1,300 ft away from the trail, and noise generated by the Project would be well below the 90 dBA threshold, as the majority of the work would be completed via with hand tools. The occasional use of equipment, such as a jackhammer or other equipment with noise levels up to 89 dBA would not occur within 500 feet of a residence and would not be for prolonged periods of time. Lastly, Project construction will occur between the hours of 7:00 a.m. to 7:00 p.m., in accordance with the City's Noise Ordinance. As such, noise impacts associated with the Project would be **less than significant.**

(b) Less than significant impact. Project construction can generate varying degrees of ground borne vibration, depending on the construction procedure and the construction equipment used. Operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. Similar to the discussion in the noise analysis in criteria (a) above, the City does not contain specific standards or thresholds related to groundborne vibration. However, the Federal Transit Administration's *Transit Noise and Vibration Impact Assessment Manual* identifies 0.2 inches per second peak particle velocity (in/sec PPV) as the level at which potential damage could result to non-engineered timber and masonry buildings.[1] Additionally, Caltrans identifies 0.24 in/sec PPV as the level at which vibration is distinctly perceivable to humans. Based on ground-borne vibration levels for standard types of construction equipment provided by the FTA, of the equipment proposed to be used for Project construction, the use of a vibratory roller/compactor (such as a "vibraplate") would be expected to generate the highest vibration levels (typically 0.210 in/sec PPV at a distance of 25 feet). Due to the Project's proximity to the nearest residence (approximately 1,200 ft) and the fact that the operation of this equipment (with vibration levels below the aforementioned thresholds) along the trail alignment would not be constant throughout the day, the Project would not result in significant groundborne vibration, and impacts would be **less than significant**.

(c) Less than significant impact. The Project parcel is located approximately 1.86 miles northwest of the Ukiah Municipal Airport within the Other Airport Environs (OAE) Compatibility Zone of the UKIACLUP, which is identified as having a low risk level associated with airport operations. Occasional overflights may be intrusive to some outdoor activities but the OAE zone does not contain any regulations regarding intensity of use or other standards specific to airport safety concerns that would

[1] Peak Particle Velocity is the peak signal value of an oscillating vibration velocity waveform. Usually expressed in inches/second in the United States.

be applicable to the Project. According to Table 3A of the UKIALUCP, most land-use categories, including recreation facilities, parks and open land areas are considered normally compatible in the OAE compatibility zone. Based on this information, the Project would not result in a safety hazard or excessive noise for people residing or working in the Project area. Impacts would be **less than significant.**

Mitigation Measures: None

14. Population and Housing

POPULATION AND HOUSING. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Significance Criteria: The proposed Project would result in significant impacts to the local population or housing stock if it directly or indirectly induced substantial unplanned population growth or displaced a substantial number of people or housing such that the construction of replacement housing would be required.

Environmental Setting: The City of Ukiah comprises of approximately 4.72 square miles within Mendocino County. Overall, the City of Ukiah's population has increased moderately over the past nearly 30 years, with a more accelerated increase in the last four years. Projections from the California State University Chico Center for Economic Development- Mendocino County Economic/Demographic Profile show this trend continuing. As described in the City's Housing Element (2019) of the General Plan, the City's annual growth rate between 1990 and 2018 averaged approximately 0.3%. Between 2000 and 2010, the City added 545 residents, or 3.7%, to its population. According to the California Department of Finance, the population in the County of Mendocino was 59,985 in 2018 and 16,226 in the City of Ukiah. The newly released 2020 Census data identifies the City of Ukiah population as 16,607.

Discussion: (a-b) No Impact. The Project would not involve the construction of new homes or businesses, or the extension of roads that would induce population growth, nor would the Project displace any people or housing, as no residences are located on-site. **No impact.**

Mitigation Measures: None

15. Public Services

PUBLIC SERVICES. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☒	☐
Parks?	☐	☐	☒	☐
Other public facilities?	☐	☐	☒	☐

Significance Criteria: The Project would result in a significant impact to public services if it resulted in a requirement for increased or expanded public service facilities or staffing, including fire or police protection, schools and parks.

Environmental Setting: Police protection services for the entire City limits is provided by the Ukiah Police Department, while the Mendocino County Sherriff's Department provides police services for areas outside of the City limits. Fire protection services in the City are provided by the Ukiah Valley Fire Authority. Educational facilities in the City are provided by the Ukiah Unified School District (UUSD) and County Office of Education. Additionally, there are several private and charter schools serving residents within the City of Ukiah. As mentioned below in Section 16, Recreation, of this Initial Study, there are 13 City parks, a municipal golf course, and a skate park managed by the City of Ukiah, as well as other recreational facilities in the area.

Discussion: (a) Less than significant impact. Like the existing City View Trail the proposed Upper City View Trail would connect to, the City of Ukiah Police Department and Ukiah Valley Fire Authority will be responsible for emergency response in the Project area. The Project will not have a substantial effect on their ability to serve the area, nor would it result in the need for additional resources.

The Project would not affect the number of students served by local schools, nor would it increase the number of new residents to the area, which could require the construction of expanded school facilities.

Trail users would utilize the existing parking lot, restroom and water fountain facilities within Low Gap Park, and will therefore not require additional public utilities. The trail will be predominantly maintained by UVTG volunteers in order to minimize or avoid the use of City park staff.

As such, the Project would not result in result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services. Impacts would be **less than significant**.

Mitigation Measures: None

6. Recreation

RECREATION.	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☒	☐

Significance Criteria: Impacts to recreation would be significant if the Project resulted in increased use of existing parks or recreational facilities to the extent that substantial deterioration was accelerated or if the Project involved the development or expansion of recreational facilities that would have an adverse effect on the physical environment.

Environmental Setting: The City of Ukiah manages several recreation facilities, including more than 13 City parks. In addition, there are approximately 30 miles of trails located throughout the Ukiah Valley, under County and federal jurisdiction.

The eastern portion of the parcel contains a portion of the Ukiah Municipal Golf Course. The western portion of the parcel is undeveloped and just south of Low Gap Park, a County-maintained park that is developed with recreation facilities including the following trails: Orr Creek Trail, East Orr Creek Trail, Shooting Star Trail, Canyon Creek Trail, the Lost Treasure Road, and the City View Trail that the proposed trail would connect to.

Discussion: (a-b) Less than significant impact. The proposed trail would add approximately one-mile of trail to connect to the existing trail network in Low Gap Park. Users of the trail are likely to be current users of other trails in the area, as the trail will only be accessed from the existing City View Trial. A week-long trail user count of the existing City View Trail showed an average of 50 people a day hiking the trail. UVTG reports that the existing trails are tolerating current use patterns and have not required maintenance due to over use or physical deterioration. Although the proposed trail loop could result in an increase in trail users, it is not anticipated to draw a significant number of new users, as it is likely that the trail would be used by visitors already hiking on existing trails or using other recreation facilities within the park. As such, the Project would not result in substantial physical deterioration of Low Gap Park or its facilities. Impacts would be **less than significant**.

Mitigation Measures: None

17. Transportation

TRANSPORTATION. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b), Criteria for Analyzing Traffic Impacts?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐

Significance Criteria: Impacts to transportation and traffic would be significant if the Project conflicted with a local plan, ordinance or policy addressing transit, roadway, bicycle and pedestrian facilities; conflicted with CEQA Guidelines Sec. 15064.3(b), which contains criteria for analyzing transportation impacts; substantially increased hazards due to geometric design features; or resulted in inadequate emergency access.

Traditionally, transportation impacts had been evaluated by using Level of Service (LOS) analysis to measure the level of congestion on local roadways. However, on September 27, 2013, Governor Jerry Brown signed Senate Bill (SB) 743 into law, initiating an update to the CEQA Guidelines to change how lead agencies evaluate transportation impacts under CEQA, with the goal to better measure the actual transportation-related environmental impacts of a given project. Starting July 1, 2020, lead agencies are required to analyze the transportation impacts of new projects using vehicle miles traveled (VMT), instead of LOS. VMT measures the amount of additional miles produced by the project. If the project increases car travel onto the roads excessively, the project may cause a significant transportation impact.

In 2018, the Office of Planning and Research (OPR) published a Technical Advisory on *Evaluating Transportation Impacts in CEQA* (2018) which is intended to provide advice and recommendations for evaluating VMT, which agencies and other entities may use at their discretion. As discussed further below, the Technical Advisory offers that screening thresholds may be used to identify when land use projects, such as small scale residential projects, should be expected to cause a less-than-significant impact without conducting a detailed traffic study.

On behalf of the Mendocino Council of Governments (MCOG), Fehr & Peers, prepared a Senate Bill 743 Vehicle Miles Traveled Regional Baseline Study (Baseline Study; May, 2020) to provide an

overview of SB 743, summarize VMT data available for Mendocino County, discuss alternatives for and recommend VMT measurement methods and thresholds for lead agencies in Mendocino County, and recommend transportation demand management (TDM) strategies for reducing VMT on projects in Mendocino County.

The following local plans have historically address transportation within the City of Ukiah: 2017 Ukiah Bicycle and Pedestrian Master Plan, City of Ukiah Safe Routes to School Plan (2014), Mendocino County Rail Trail Plan (2012), Ukiah Downtown Streetscape Improvement Plan (2009), and the City of Ukiah General Plan (Circulation and Transportation Element amended in 2004). MCOG's Regional Transportation Plan (2017) and Section 5, Circulation and Transportation, of the Ukiah Valley Area Plan (2011) addresses transportation within the larger Ukiah Valley. The Baseline Study incorporated applicable goals and policies from each of these documents into the methodology and analysis when formulating its screening tools.

A lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled. If existing models or methods are not available to estimate the vehicle miles traveled for the particular project being considered, a lead agency may analyze the project's vehicle miles traveled qualitatively.

Environmental Setting: The City of Ukiah generally lies west of U.S. 101 between the U.S. 101/North State Street interchange, and the U.S. 101 / South State Street interchange. Three major interchanges along U.S. 101, Talmage Road, Gobbi Street, and Perkins Street (from south to north), provide access to southern and central Ukiah. The City of Ukiah is developed in a typical grid pattern with streets generally oriented north to south and east to west. Bicycle lanes are located throughout the City and public transit is provided by the Mendocino Transit Authority (MTA).

The Project site is currently accessed via the Low Gap Park parking lot on Low Gap Road, a City-maintained two-lane road that is developed with pedestrian sidewalks and bike lanes. The Nearest MTA bus stop is located at the Ukiah High School, located across the street from Low Gap Park.

Discussion: (a-b) Less than significant impact. *As noted in OPR's Technical Advisory on Evaluating Transportation Impacts in CEQA,* the addition of Class I bike paths, trails, multi-use paths, or other off-road facilities that serve nonmotorized travel is listed as a project that would not likely lead to a substantial or measurable increase in VMT. In addition, according to the Baseline Study, analysis of smaller, less complex projects can be simplified by using screening criteria. If a project meets any of the criteria outlined in Section 3.3 of the Baseline Study, it may be presumed to cause a less-than-significant VMT impact without further study. Because the Project is a small, simple, low VMT-generating project that involves construction of a trail loop that would connect to an existing trail system and meets the following criteria, impacts would be less than significant: *The project generates less than 640 VMT per day and is consistent with the jurisdiction's general plan and the Regional Transportation Plan.* As such, the Project would not conflict with CEQA Guidelines § 15064.3, nor would it conflict with a regional plan or policy related to traffic; impacts would be **less than significant.**

(c-d) Less than significant impact. The proposed trail would be accessed by the existing parking lot and Low Gap Road. Additional street parking is also available. Emergency access is currently provided through existing facilities and the Project does not propose any modifications to those facilities. As such, impacts would be **less than significant**.

Mitigation Measures: None

18. Tribal Cultural Resources

TRIBAL CULTURAL RESOURCES. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☒	☐
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☒	☐

Significance Criteria: An impact to tribal cultural resources would be significant if the Project were to substantially reduce the significance of a tribal cultural resource, a listed or eligible historic resource, or a resource considered significant by a California Native American tribe. Tribal cultural resources include “sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe” that are eligible for inclusion in the California Register of Historical Resources (California Register) or included in a local register of historical resources. Lead agencies are required to “begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the Proposed Project.” The consultation process must be completed before a CEQA document can be certified.

Environmental Setting: As discussed in Section 5, Cultural Resources, areas that are most typically culturally sensitive include those adjacent to streams, springs, and mid-slope benches above watercourses because Native Americans and settlers favored easy access to potable water.

Tribes known to be present within the Ukiah area include (but are not limited to) the following:

- Coyote Valley Band of Pomo Indians
- Guidiville Indian Rancheria of Pomo Indians
- Hopland Band of Pomo Indians
- Pinoleville Pomo Nation
- Potter Valley Rancheria
- Redwood Valley Little River Band of Pomo Indians
- Scotts Valley Band of Pomo Indians
- Yokayo Tribe, not federally recognized

Discussion: (a-b) Less than significant impact. As described in Section 5, Cultural Resources, of this Initial Study, no cultural resources were identified within the Project area as a result of the records search, literature review, or archaeological field survey. In addition, due to its topography, the site is considered to have a "low potential" for cultural, archeological, and historic resources. Because the Project has been designed with minimal ground disturbance and the site does not have a high potential for resources to occur, less than significant impacts would occur as a result of the Project. Regardless, construction of the Project will be required to adhere to CEQA Guidelines Section 15064.5 (e-f) which specifically addresses what to do in the event that human remains or archeological resources are accidentally discovered.

As noted above, in accordance with AB 52, a notification proving the opportunity for consultation was sent to the Guidiville Rancheria of California but no response requesting formal consultation was received. Based on the aforementioned, impacts to tribal cultural resources would be **less than significant.**

Mitigation Measures: None

19. Utilities and Service Systems

UTILITIES AND SERVICE SYSTEMS. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	☒
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	☒
c) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☐	☒
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

Significance Criteria: Impacts to utility and service systems would be significant if the Project resulted in the construction or expansion of utilities that could cause significant environmental effects; have insufficient water supplies available to the Project during normal to extremely dry years; resulted in inadequate capacity of the wastewater treatment plant; generated solid waste exceeding the capacity of local infrastructure or impairing the achievement of solid waste reduction goals; or failed to comply with any management and reduction statutes or regulations related to solid waste.

Environmental Setting: The majority of City properties are served by City water, sewer, electricity and trash collection as summarized below.

Electric. The City of Ukiah's Electric Utility Department provides electric services to properties within the City limits, while Pacific Gas & Electric (PG&E) provides services to properties outside of the City.

Water. There are five major providers of community water services in the Ukiah Valley. The City of Ukiah serves customers within the City, while Rogina Water Company and Millview, Calpella, and Willow County Water Districts serve the unincorporated areas. The City of Ukiah 2020 Urban Water Management Plan (UWMP) was adopted by City Council on June 2, 2021. The UWMP considers several growth scenarios including an additional 2,500 and 5,000 hookup scenarios and determined that there is capacity through the 2045 planning horizon to serve these growth projections.

Sewer and Wastewater. The Ukiah Valley Sanitation District (UVSD) and the City of Ukiah provide public sewer services to customers within their boundaries under the purview of the State Water Quality Control Board. The City's sewage treatment plant and Waste Water Treatment Plant (WWTP), operational since 1958, serves the City of Ukiah and the Ukiah Valley Sanitation District.

Solid Waste. The Ukiah landfill, outside City limits on Vichy Springs Road, stopped receiving municipal solid waste in 2001 and the City is working on capping the landfill. No new waste generated will be processed through the landfill. Solid waste generated in the Ukiah Valley is exported for disposal to the Potrero Hills Landfill in Solano County. The Valley's solid waste disposal system consists of a large volume transfer station, Ukiah Transfer Station, which receives waste for export.

Discussion: (a-e) No Impact. Users of the proposed trial would utilize existing infrastructure, including access roads, parking lots, water fountains and restrooms; no additional utilities are needed for the proposed trail. Any waste produced from construction activities would be disposed of at the Ukiah Transfer Station in accordance with all applicable local, state and federal regulations. **No impact** to utilities and service systems would occur.

Mitigation Measures: None

20. Wildfire

WILDFIRE. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☒	☐	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☒	☐	☐

Significance Criteria: Impacts to wildfire would be significant if the Project were located in or near a State Responsibility Area (SRA) or lands classified as very high fire hazard severity zones and substantially impaired an emergency response plan; exposed Project occupants to wildfire pollutants or uncontrolled spread of wildfire due to site conditions such as slope and prevailing winds; require the installation or maintenance of infrastructure that could exacerbate fire risk; or expose people or structures to significant risks as a result of post-fire runoff, slope instability or drainage changes.

Environmental Setting: All lands within the City of Ukiah are within the jurisdiction of the Ukiah Valley Fire Authority. None of the lands within the City of Ukiah are located within a California Department of Forestry (CalFire) State Responsibility Area (SRA). However, some parcels within the western boundary of the City limits, including the Project site, are designated as “Very High” fire severity within the Local Responsibility Area (LRA).

As discussed in Section 9, Hazards and Hazardous Materials, the County’s EOP plan and MJHMP address emergency operations, natural disasters (including wildfire), as well as mitigation strategies to reduce potential risks. The City of Ukiah adopted its “jurisdictional annex” chapter of the MJHMP on November 18, 2020. Hazards identified for the City of Ukiah include earthquakes, wildfire, dam failure, flood and pandemic. Table 1-13 of the City’s jurisdictional annex lists each hazard and mitigation action for City of Ukiah.

Discussion: (a) Less than significant impact. The proposed trial would be accessed via an existing parking lot and access roads. There are no components of the Project that would conflict with, or impair the adopted MJHMP, EOP, or other adopted emergency response plan or emergency evaluation plan. Impacts would be **less than significant**.

Discussion: (b & d) Less than significant with mitigation incorporated. As described in Section 9, Hazards and Hazardous Materials, the Project site is located within a designated as having "Very High" fire severity risk within a Local Responsibility Area. However, the development and use of the proposed trail would not substantially increase the risk of wildfire in the area. Temporary construction activities involving the use of gasoline-powered tools and equipment could introduce new temporary sources of ignition that could increase fire risk. However, with implementation of Mitigation Measure HAZ-1, impacts would be reduced to less than significant. For the reasons stated, the Project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires. See Section 20, Wildfire, for more information. Impacts would be **less than significant with mitigation incorporated.**

(C) Less than significant impact. The Project would not require the installation or maintenance of infrastructure such as roads, fuel breaks, emergency water sources, power lines or other utilities that would exacerbate fire risk. Impacts would be **less than significant**.

Mitigation Measures:

Implementation of **HAZ-1**

21. Mandatory Findings of Significance

MANDATORY FINDINGS OF SIGNIFICANCE.	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☒	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Discussion: (a) Less than significant impact with mitigation incorporated. As described throughout the Initial Study, temporary ground disturbing activities associated with vegetation removal and trail construction could result in direct significant impacts to Air Quality, Biological Resources,

Hazards and Hazardous Materials, Hydrology and Water Quality, and Wildfire. However, mitigation measures identified within the aforementioned sections would reduce impacts to **less than significant with mitigation incorporated**.

(b) Less than significant impact with mitigation incorporated. Cumulative impacts are generally considered in analyses of Air Quality, Biological Resources, Cultural Resources, Noise, and Traffic. As discussed throughout the Initial Study, the Proposed Project would have less than significant impacts on these resources with implementation of mitigation measures described herein. Short-term construction impacts associated with the Project would not significantly contribute to cumulative impacts in the area as there are no known past projects nor current projects within the vicinity of the site. Based on the findings and conclusions contained in the Initial Study, cumulative impacts related to the Proposed Project would be **less than significant with mitigation incorporated**.

(c) Less than significant impact with mitigation incorporated. Based on the findings and conclusions contained in the Initial Study, the Proposed Project would not have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly. Impacts would be **less than significant with mitigation incorporated.**

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VII. MITIGATION MONITORING AND REPORTING PROGRAM

Potential Impact	Mitigation Measure	Implementation Responsibility	Monitoring & Reporting Responsibility	Timing	Date Implemented
Air Quality					
Construction and ground disturbing activities could result in short-term impacts to air quality.	**AQ-1: Vegetation Removal.** Vegetation removal methods shall include grinding or chipping larger materials on-site, and/or disposal at the Transfer Station; burning of vegetation shall not be allowed without obtaining the appropriate burn permits.	City or contractor	City or contractor	Throughout construction	
	AQ-2: Diesel Engines – Stationary and Portable Equipment and Mobile Vehicles: Off-road equipment with auxiliary diesel engines rated at 50 brake horsepower or greater, must have either a valid Air Quality permit, or a state Portable Equipment Registration Program (PERP) Registration	City or contractor	City or contractor	Throughout construction	
Biological Resources					
Construction and ground disturbing activities could result in impacts to sensitive species	**BIO-1**: **Sensitive Amphibian Species**. One (1) special-status amphibian has a moderate or high potential to occur within the Study Area; red-bellied newt *(Taricha rivularis).* A qualified biologist shall survey the area prior to any groundbreaking or dewatering activities to determine the presence of Red-belly newt, or other	Qualified Biologist	City or contractor	Prior to any groundbreaking or dewatering activities	

	sensitive amphibian species, and identify additional avoidance measures, if needed.				
	BIO-2: Special-Status Mammals. Five (5) special-status mammal species have moderate or high potential to occur within the Study Area. These species include the Sonoma tree vole (*Arborimus pomo*), North American porcupine (*Erethizon dorsatum*), western red bat (*Lasiurus blossevillii*), hoary bat (*Lasiurus cinereus*), and fisher [West Coast DPS] (*Pekania pennanti*). Pre-construction surveys shall be conducted by a qualified Biologist prior to any vegetation removal or ground disturbing activities. If evidence of bat roosts is observed (i.e. bat guano, ammonia odor, grease stained cavities) around trees or structures, pre-construction bat surveys shall be conducted by a qualified biologist for activities that may affect bat roosting habitat and den sites.	Qualified Biologist	City or contractor	Prior to any vegetation removal or ground disturbing activities	
	BIO-3: Special-Status Insects. One (1) special-status insect species has moderate or high potential to occur within the Study Area; western bumble bee (Bombus occidentalis). A qualified Biologist shall survey the area prior to any groundbreaking activities to determine the presence of special-status insect species and identify additional avoidance measures if needed. If a special-status insect nests are observed, active nests shall not be removed,	Qualified Biologist	City or contractor	Prior to any vegetation removal or ground disturbing activities	

	relocated, or otherwise disturbed until the nest becomes inactive.				
	BIO-4: Nesting Birds. Four (4) special-status avian species have moderate or high potential to occur within the Study Area. These species include northern goshawk (*Accipiter gentilis*), golden eagle (*Aquila chrysaetos),* osprey (*Pandion haliaetus*), and northern spotted owl (*Strix occidentalis caurina*). Pre-construction surveys shall be conducted by a qualified Biologist prior to any vegetation removal or ground disturbing activities occurring between March 1 and August 31 of any year. All active bird nests shall not be removed, relocated, or otherwise disturbed for any purpose until all fledglings have left the nest.	Qualified Biologist	City or contractor	Prior to any vegetation removal or ground disturbing activities occurring between March 1 and August 31	
	BIO-5: Special Status Plants. One (1) special status plant, Redwood lily (*Lilium rubescens*), was observed within the proposed trail alignment and the secondary additional alignment. U.S. Fish and Wildlife (USFWS) protocol-level sensitive plant species surveys for Redwood lily (within the blooming period (generally March-August) shall be conducted by a qualified Biologist prior to any ground disturbing activities to verify the presence of special status plants. Plant locations will be flagged and a 25-foot, 50-foot or 100-foot no disturbance zone shall be established to avoid the species. Data shall be submitted to the CNDDB database and additional	Qualified Biologist	City or contractor	Prior to any ground disturbing activities between March and August	

	mitigation will be identified if needed, in coordination with CDFW and USFWS.				
	BIO-6: Oregon White Oak Forest. Any removal of the Oregon white oak (*Quercus garryana)* shall be done via consultation with the California Department of Fish and Wildlife (CDFW); all work within this community shall adhere to CDFW recommendations. In addition, nesting bird surveys shall be conducted prior to commencing any activities that require vegetation removal between March 1st and August 31st of any year (refer to Mitigation Measure BIO-4). Lastly, although not required, other management considerations for the preservation of this community include thinning or removal of conifer species within the stand in accordance with local laws, regulations, and ordinances. Such thinning could limit the possibility of vegetation type conversion to closed-canopy woodlands and conifer forest and inhibit the development of fuel ladders that increase the potential for stand-replacing fires.	Qualified Biologist; CDFW	City or contractor	Prior to vegetation removal between March 1st and August 31st of any year, and prior to removal of any Oregon white oak any time of the year	
Construction and ground disturbing activities could result in impacts to watercourses	**BIO-7: Watercourses.** The Project shall adhere to UVTG Design and Maintenance Standards for trail construction related to erosion, and all earthwork within or adjacent to (50 feet) any watercourse or other body of water shall adhere to standard methods of erosion and sediment control (placement of straw, mulch, seeding, straw wattles, silt fencing, etc.) and, if possible, work	City or contractor; CDFW if stream crossing and regulatory permits are required	City or contractor	During construction, and within the first three years after construction (for assessment of potential crossing)	

	shall be completed while the channel is dry to reduce sediment load downstream. The UVTG shall assess the entire trail length each winter for the first three years after project completion. Any areas that are damp enough to show foot created depressions after the trail is dried will be assessed and either crossed with a footbridge such as a wooden walkway known as a "puncheon", or be hardened, or diverted with a culvert if a bridge is deemed impractical. If any structures are proposed for placement within the bed or bank in order for the trail crossing, consultation with CDFW shall be required and all necessary permits shall be obtained.				
Hazards and Hazardous Materials					
Construction may involve the use of gasoline-powered tools and equipment potentially introducing new temporary sources of ignition that could increase fire risk.	**HAZ-1:** Should portable gasoline-powered equipment be used on site, the following firesafe precautions shall be taken: g. Spark arresters are required on all portable gasoline-powered equipment. h. Equipment shall be maintained in good working condition, with exhaust systems and spark arresters in proper working order and free of carbon buildup. i. Fuel the equipment in a safe place where spills can be contained and a fire extinguisher is nearby. Use the recommended gas/oil mixture and do not top off. Use a funnel or spout for pouring. Wipe off any spills.	City or contractor	City or contractor	Throughout construction	

	j. Do not refuel running or hot equipment. Dispense fuel at least 10 feet from sources of ignition. k. Do not use equipment in areas of dry vegetation. Keep leaves and dry materials away from a hot muffler. l. No smoking or open flame allowed near gasoline-powered equipment.				
Hydrology and Water Quality					
Construction of the Project could result in erosion and water quality impacts	Implementation of **BIO-7**	City or contractor; CDFW if stream crossing and regulatory permits are required	City or contractor	During construction, and within the first three years after construction (for assessment of potential crossing)	
Wildfire					
Construction may involve the use of gasoline-powered tools and equipment potentially introducing new temporary sources of ignition that could increase fire risk.	Implementation of **HAZ-1**	City or contractor	City or contractor	Throughout construction	

ATTACHMENT A

Ukiah Valley Trail Group
Philosophy and Design and Maintenance Standards

Trail Philosophy: Central to the Ukiah Valley Trail Group's approach to trails is the recognition that our world is one of finite resources and, since demand for these resources is increasing steadily; insightful management is of utmost concern. The Inland Mendocino County Trail system must be designed to utilize resources in ways that benefit all non-motorized users. This entails providing adequate accommodation and accessibility, rather than focusing on individual user groups. The increased sharing of resources sometimes creates friction between the diverse user groups vying for more trail space. This Trail Plan acknowledges that a certain amount of friction is inevitable and therefore focuses on planned communication to minimize the differences and optimize the benefits derived from these precious resources.

Plans for optimal use of trail resources must be in concert with the objective of natural and cultural resource protection. Any decisions on resource use affect not only local residents and visitors, but our natural and cultural habitat as well. If we make responsible decisions concerning preservation of our resources, we will succeed in our custodial duties to the environment while at the same time providing enjoyment for current and future generations. Through well designed, constructed and maintained trails we will accomplish optimal public access while accommodating resource conservation.

Providing the public with increased access to trail and greenways is not enough; we must also strive to promote the abundant benefits that derive from them. Trail benefits include recreation, transportation, energy conservation, environment and habitat protection, fire suppression, improved physical and mental health, and local economic benefits. Informing the public of the significant benefits expands public awareness of the advantages that trails and greenways offer to the individual and the community. Gaining public support thereby encourages policy makers to support trails and greenways and to increase funding to better manage the trail system.

Improving relationships and interaction between government entities and the private sector will be necessary for the effective development of a well planned and managed trail and green-way system. Open communication between all levels of government and interested parties enhances the finding of common objectives by making individuals and groups part of the solution. Linking communities and trail advocates in trail planning minimizes land use conflicts and allows for optimal resource use. Joint planning emphasizes the development of interconnected trails in natural settings and a united effort creates a stronger voice for advancing trail proposals.

Goals: The goals for the Lake Mendocino Trail Plan should include 1) generalized goals for the development of a quality local trail system, 2) specific goals for the Lake Mendocino trail system, 3) goals for how the Lake Mendocino trail system will link, and be a part of, the greater Ukiah Valley Trail System and 4) goals for using trail

improvements and quiet-use recreation ethics as a tool for ecosystem restoration and preservation.

The general goals that define a quality trail system include:

1-Adequate mileage

- Moderate strong bike or horse riders ride 15-20 miles in a day
- Endurance riders will ride 100 miles in a day
- There are approximately 24 miles of trail in the Ukiah Valley

Lake Mendocino currently has approximately 16 miles of trail and is near to maximum capacity. Small increases are necessary but can be mitigated with road closures and road to trail conversions. Employing a “stacked loop” design can maximize the trail experience within the capacity.

2- Connectivity

- A single recreation area is unlikely to meet all the community’s needs.
- Trails that connect the various areas are therefore necessary.
- Connectivity allows trails to fulfill a transportation role.
- Lake Mendocino Trails do not currently connect with any other trail systems.
- Priority should be given to approving trails that link Lake Mendocino to outlying areas.

3- Variety of environments

- An example of each of the area's micro-ecosystems should be included, such as Riparian, oak woodland, mixed hardwoods etc.
- Trails should include sunny areas, which will be more desirable in the winter, and shady areas for summer use.

4- **Variety of trail experiences**

- Different trail users appreciate different trail characteristics.
- Equestrians generally prefer wider trails.
- Mountain bikers generally prefer lots of rolling ups and downs with lots of turns.
- Runners tend to prefer gentle grades.
- Advanced users desire more “technical” or challenging trail - narrower with a rougher, more uneven tread.

A quality trail system will provide a variety of trail experiences. A small trail system should focus first on trails that meet the needs of the majority of users.

5- **Easy Access/Options**

- Users need to be able to get from home to trail quickly and start their experience.
- The first trail from the trailhead should be an easy trail, wide and smooth - suitable for all users.
- As users delve further into the system, the trails should increase in difficulty.
- “Stacked loops” of trails allow users to return by a different route while providing

a variety of options.

6- **Signage / Mapping**

- All trails should be named and signed.
- All trailheads should have an information kiosk.
- Maps should be readily available for all trails.

7- **Sustainability & Maintenance**

- Trails need to be well maintained.
- Trails designed to sustainable standards require much less maintenance.

UVTG Design and Maintenance Standards

Definitions

Reroute – a trail maintenance project that starts and ends on a single existing trail and abandons the trail between those points will be termed a reroute.

Trail - A trail is specifically designed, designated, developed, and maintained as a recreational corridor for the exclusive use of non-motorized vehicles. It is typically not more than 4 feet wide, unpaved and generally requires users to travel single file.

Use Trail - A Use Trail is a trail that has been created without a planning process and or approval by the repeated historic exploration of users.

Multi-Use Trail - A multi use trail is a trail that is open to non-motorized users including hikers, runners, equestrians, and bicyclists. All trails in the Lake Mendocino property will be multi use unless compelling reasons are presented to necessitate partial closure. (Such as the Shakota trail which is currently closed to equestrians.)

Road - Any transportation corridor designed for motor vehicle use and open to motor vehicle use. Although roads may be necessary for maintenance, further road building should be avoided and road closures should be pursued where possible. A road may be used for recreation but is not a trail.

Fire Break -Although trails act as small firebreaks and have been known to stop fires and can be used as locations to start backfires, a firebreak is not a trail.

Trail Maintenance and Repair [2] - Maintenance and repair of existing trail is performed to return the trail or trail segment to the standards or conditions to which it was originally designed and built, or to improve it to comply with more current design standards to achieve sustainability. The act of maintenance and repair includes but is not limited to:

- Removal of debris and vegetation from the trail corridor, clearing encroaching brush and grasses, removing rock slides, etc.- Maintenance of trail tread such as

filling ruts and entrenchments; reshaping trail bed, repairing trail surface and washouts; installing rip rap; constructing retaining wall or cribbing

- Erosion control and drainage, replacing or installing necessary drainage structures, water bars, culverts; realigning sections of trail to deter erosion or avoid boggy/marshy areas.

- Repair or replacement of existing trail structures.

- Upgrades and short reroutes to improve sustainability and decrease maintenance needs.

Trail tread and slope characteristics

1. Trail Width:

Trail beds shall be built and maintained with a goal of being three feet wide. Topographical, vegetation, or resource constraints may require sections that are less than three feet.

Rationale: Allows users to pass by each other safely.

2. Rolling "Contour" Trails:

Trails shall be built with the contour of the topography (plus or minus 10%) utilizing side-slopes and avoiding flat areas as much as feasible.

Rationale: Building trail along fall lines or in flat areas creates erosion. "Contour" trails allow water to sheet off the trail and flow downhill.
Keeping trails on hillsides keeps them out of flatter, wetter areas. Trails built in wet areas are not sustainable. Users tend to walk along edge of trails, creating trail widening. Wet areas are more prone to soil compaction and displacement.
"Contour trails create changing view sheds that add to the enjoyment of the trail.

3. Average trail grade less than or equal to 10%:

The average slope of the trail will be less than or equal to 10%, some slopes will be greater and some less. Side slope, soil type and natural obstacles will determine the grades for each individual section of trail. Sections that are over 10% should be short and followed by a relatively flat section or grade reversal.

Rationale: Most soil types can withstand up to 10% grades.
Minimizes user-caused erosion.
Allows for possible reroutes at a steeper grade if there is a future problem such as a slide.
Accommodates undulations/grade reversals.
Feels comfortable to most trail users.

Grade reversals after steep sections allow the user t recover from the increased effort.

4. Sustainable trail alignment - Trail grade does not exceed “half-rule”:

The grade of the trail should not be greater than half the grade of the sideslope that the trail traverses.

Rationale: Prevents erosion caused by water flowing down the trail rather than flowing down the hillside.
Guides individual trail planning segments to fit the topography.

5. Maximum trail grades should be less than 15%:

Rationale: Although this rule might occasionally need to be broken, at least for short segments of trail, our observation is that most of the existing trails at Lake Mendocino are sustainable up to a grade of 15%. Higher grades, especially in areas exposed to weather, have suffered more erosion and damage from users.

6. Incorporation of grade reversals:

Trails should incorporate frequent grade reversals every 10 to 50 feet, depending on soil type and topography.

Rationale: Grade reversals provide areas for water to drain off of trails. As trails age, the shape of the trail bed tends to become concave, leading to the trapping of water. Grade reversals divide the trail into short, individual watersheds.

7. Build in outslope:

Outer edges of trails shall be built and maintained so that they create an approximate 3-5% slope from the inner edge of the trail.

Rationale: Allows water to sheet off of trail, decreasing erosion.

8. Build in backslope:

Depending on soil stability and composition, the area uphill of the trail shall be sloped extending upward from the trail.

Rationale: Prevents a waterfall effect from water coming down the hill and dropping onto the trail tread.

9. Water Crossings:

Water crossings should be avoided when possible. Trails shall be designed, built, and maintained to minimize sedimentation in streams. Bridges shall be the ideal with puncheons, culverts or “hardening” being considered should resource limitations, infrequent water flow, or low use combine to make a bridge impractical. Prioritization of water crossings should be considered with high use crossings receiving first resources.

Rationale: Minimize impacts to the stream channel and environment.

Create a safe and sustainable passages for trail users.
Work within limits of resource availability and predicted impacts.

Pruning

Pruning vegetation is an essential and regular part of trail maintenance, especially in brushy chaparral areas. Multi-use trails should have 10' vertical and 8' horizontal clearance (though there will be exceptions for the sake of protecting a tree or skirting around a large boulder).
Too often, trail pruning is accomplished in the most expeditious manner possible -- a branch intrudes within the walking/riding space of the trail and is quickly lopped-off so that it doesn't intrude and the debris is indescriminantly tossed aside. However, our goal in trail maintenance is to **maintain a trail in as natural appearance as possible**. A quick pruning job deals only with the function of trail maintenance, not the aesthetics. There are 6 elements of acceptable pruning in the State Park System. Each of these elements makes pruning a more tedious maintenance task, but results with a trail that is compatible with the natural environment.

Do not toss debris! Branches that are randomly discarded usually end up hanging in adjacent shrubs or trees. These dead branches are both unsightly and create a fire hazard.

Place debris out of view. This element requires the extra effort of dragging branches under and around shrubs.

Place the butt (cut) end away from the trail. This will help disguise the debris.

Each cut branch should be touching the ground to promote decomposition. This means that brush piles are not appropriate.

Pruning should be done sensitively so that the trail appears natural and not as if a chain saw just blasted through. Trail users should not be aware that **any** maintenance work has recently been done.

Prune to the collar of any branch stem for the health of the shrub and a more natural looking result. At the base of any branch there is a wide section that contains a plant's natural healing agents. Any pruning performed away from this collar will expose the plant to a greater risk of infection. A cut at the collar will naturally heal. For large branches over 2" in diameter, cut from the bottom, then cut down from the top. This prevents tearing of the bark, reducing infection.

10. References:

The following references will be used as resources to establish best practices and resolve questions not covered in the above. Additional references will be added upon availability.

Weber, Peter(Ed). 2007 *Managing Mountain Biking: IMBA's Guide to Providing Great Riding* International Mountain Biking Association. Boulder CO ISBN978-9755023-1-X

Birkby, Robert. 2005 *Lightly on the Land: The SCA Trail Building and Maintenance Manual. 2nd edition.* The Mountaineers Books. Seattle WA ISBN

Felton, Vernon. 2004 *Trail Solutions; How to Build Sweet Single Track.* Johnson Printing, boulder CO ISBN 0-9755023-0-1

Parker, Troy Scott, 2004. *Natural Surface Trails by Design.* NatureShape, Boulder,CO. ISBN0-9755872-0-X

Steinholz, Robert & Vachowski, Brian. 2001. *Wetland Trail Design and Construction.* USDA Forest Service Technology and Development Program Misoula, MT 8E82A3

Birchard, William & Proudman, Robert 2000 *Appalachian Trail: Design, Construction, and Maintenance. 2nd Edition* Appalachian Trail Conference Harper's Ferry WV

Demrow, Carl & Salisbury, David 1998. *The Complete Guide to Trail Building and Maintenance, 3rd Edition.* Appalachian Mountain Club Books. Boston, MA ISBN1-878239-54-6

JACOBSZOON & ASSOCIATES, INC.
natural resource planning & management

Biological Assessment Report

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APN: 001-030-01 and 001-020-12

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Table of Contents

Section 1.0: Introduction

This biological assessment was prepared by Jacobszoon and Associates Inc. for the City of Ukiah for the proposed development of a one-mile loop of narrow-gauge natural surface trail commonly known as a "hiking trail" that would begin and end on the upper leg of the existing 2.8-mile City View Trail (Appendix D: Map 2, Study Area Map). The project site is located just west of Ukiah, CA within Section 18, Township 15N, Range 12W, Mount Diablo Base and Meridian, in the Ukiah USGS 7.5-minute quadrangle, APN: 001-030-01 (Appendix D: Map 1, Vicinity Map Area).

The proposed trail will run almost entirely beneath a substantial tree canopy cover of natural woodlands consisting mainly of native tree and understory species. The proposed trail route does not cross blue line drainages or wet areas. In accordance with the Ukiah Valley Trail Group (UVTG) design and maintenance standards, the trail will be 2 to 4 feet wide, back sloped to create an angle of repose to the greatest extent possible and built with a 3 to 5 percent outslope and rolling dips to allow sheet water drainage. The proposed trail route and design was established by the UVTG and was selected to maintain consistent slope integrity and to keep disturbances to natural areas at minimal levels. Trimming of encroaching tree branches will be required along portions of the trail. Tree branch pruning, trimming, and root care activities will be limited to those branches that would represent hazards to hikers or cause extensive detours and additional grading for the trail route. Every effort to re-route the alignment of the trail to avoid the unnecessary removal of trees will be made. However, approximately six immature redwood trees (less than six inches diameter breast height (dbh)) would be removed for the alignment to maintain acceptable trail grade standards.

The proposed trail was also designed with input from the Sanhedrin Chapter of the Native Plant Society, who often collaborates with the UVTG to review trail design to ensure impacts to special status plant species are reduced or avoided. An additional loop was proposed in the original design but removed from the plan in response to concerns cited by members of the botanical review team in regard to the potential impact to native plants. Botanical surveys of the proposed trail and the additional loop were conducted on March 21, April 11, April 25, June 8 and July 19, 2021 by members of the Sanhedrin Chapter of the Native Plant Society. Please see the attached report in Appendix F.

The trail building operations have the potential to impact sensitive animal species; therefore, the purpose of this biological assessment was to identify and map areas within the footprint and 100 feet of the proposed trail that are potential sensitive natural communities and to locate special-status animal habitats to determine if they would be directly or potentially impacted by the proposed project. A biological assessment site visit was conducted on November 18, 2021. The Study Area referred to within this report comprises the proposed one-mile loop of hiking trail and 100 feet surrounding the proposed trail (Appendix D: Map 2, Study Area Map).

This report includes the following:

- Regulations and Project Description (Section 2)
- Field Survey Methodology (Section 3)
- Study Area Setting (Section 4)
- Field Survey Results (Section 5)

- Assessment Summary and Recommendations (Section 6)
- Table of Special-Status Wildlife within CNDDB nine quads (Appendix A)
- List of Species Observed (Appendix B)
- Representative Photographs of Study Area (Appendix C)
- Supporting Maps (Appendix D)
- Supporting Documents (Appendix E)
- Sanhedrin Chapter of the Native Plant Society Botanical Survey Report (Appendix F)

Section 2.0: Regulations and Descriptions

2.1 Regulatory Setting

In addition to the requirements of Mendocino County's permitting process, the project shall comply with Federal, State, and local regulations designed to protect sensitive natural resources. The following natural resources are protected under one or more of several Federal and/or State regulations and should be considered when designing and/or implementing the proposed project within the Study Area:

Essential Fish Habitat: protected through changes to the Magnuson-Stevens Fishery Conservation and Management Act to maintain sustainable fisheries in the United States, administered by National Marine Fisheries Service (NMFS):

- Includes habitats (rivers, creeks, estuaries) that may support anadromous fish (fish migrating from ocean habitat into freshwater river habitat), as well as commercially and/or ecologically valuable fishes.

Streams, Lakes, and Riparian Habitat: protected under the California Fish and Game Code (CFGC), administered by the California Department of Fish and Wildlife (CDFW):

- Includes creeks and rivers (bodies where water flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life), and vegetation adjacent to and associated with (riparian habitat).

Waters of the State: protected under the State Water Resources Control Board

Waters of the U.S.: protected under the Clean Water Act (CWA), administered by the Environmental Protection Agency (EPA) and U.S. Army Corps of Engineers (Corps):

- Includes wetlands, streams, rivers, and other aquatic habitats meeting the guidance issued by the Corps.

2.2 Natural Communities and Sensitive Natural Communities

Sensitive Natural Communities: protected under the California Fish and Game Code (CFGC), administered by California Department of Fish and Wildlife (CDFW 2021):

- Includes terrestrial vegetation or plant communities that are ranked by NatureServe and considered "threatened" or "endangered" by CDFW, lists of such are included in *List of Vegetation Alliances and Associations* (CDFW 2021).

2.3 Special-Status Species

Special-status Wildlife Species including Critical Habitat: protected under one or more of the Federal Endangered Species Act (ESA), California Endangered Species Act (CESA), California Environmental Quality Act (CEQA), administered by the U.S. Fish and Wildlife Service (USFWS), and/or CDFW:

- Includes wildlife listed under the ESA and/or CESA, and wildlife listed by CDFW as Species of Special Concern, Fully Protected Species, and/or Special status including Invertebrates, Birds of Conservation Concern listed by USFWS, Species of Concern listed by National Marine Fisheries Service (NMFS), Western Bat Working Group (WBWG).

Section 3.0: Field Survey Methodology

3.1 Assessment Methods

The biological resource assessment is designed to identify sensitive communities within the Study Area and determine the existence or potential occurrence for special-status species. The assessment is also designed to address the potential for cumulative impacts to biological resources that may occur as a result of the project and to make recommendations to reduce or mitigate potential impacts. The biological resource assessment includes the analysis and comparison of existing habitat conditions within the Study Area and the documented range and habitat requirements of sensitive wildlife species described in CDFW's California Wildlife Habitat Relationships System (CWHR).

Jacobszoon & Associates Inc. senior biologist Alicia Ives Ringstad conducted a biological resource assessment of the Study Area on November 18, 2021, consisting of approximately four (4) hours. The Study Area was assessed to document: (1) the on-site natural communities, (2) existing conditions and their ability to provide suitable habitat for any wildlife species, and (3) if sensitive natural or biological communities are present.

3.2 Database and Resource Descriptions

Prior to conducting field surveys, available reference materials were reviewed, including the United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) *Web Soil Survey,* the United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI), the Ukiah 7.5'-minute USGS quadrangle topographic map, and the most recent available aerial imagery. The location of streams and watercourses within the project vicinity were reviewed using datasets from California Streams and the California Department of Forestry and Fire Protection (CAL FIRE).

Existing vegetative communities were reviewed using CDFW's Vegetation Classification and Mapping Program (VegCAMP) data for the potential existence and location of sensitive natural communities including Mendocino Cypress (*Hesperocyparis pygmaea*) and related vegetation. Where VegCAMP data was not available, existing vegetative communities were reviewed using USDA Forest Service Classification and Assessment with Landsat of Visible Ecological Groupings (CALVEG) data.

Databases queried for the occurrence of special-status species include the USFWS Information for Planning and Consultation (IPaC), and the California Department of Fish and Wildlife California Natural Diversity Database (CNDDB) Spotted Owl Data Viewer, RareFind and Quick Viewer processed and unprocessed data (online edition, v5.96.99). The CNDDB consists of mapped overlays of all known populations of sensitive plants and wildlife. The database is continually updated with new sensitive species population data. For the purpose of this biological assessment, only sensitive wildlife was reviewed (Appendix D, Map 3: CNDDB Vicinity Map). The database is continually updated with new sensitive species population data.

California Wildlife Habitat Relationships (CWHR) Predicted Habitat Suitability is a dataset accessed through CNDDB BIOS Commercial/Spotted Owl Viewer that represents areas of suitable habitat within species' documented ranges. Examination of the CWHR dataset was applied when: 1) the data is available for the species of concern, and 2) when there is a moderate to high potential for an animal to occur on or within 100 feet of the Study Area. CWHR examines whether the areas being examined in the biological assessment is habitat which *may* support a species of special concern. Habitat suitability ranks of Low (less than 0.34), Medium (0.34-0.66) and High (greater than 0.66) suitability are based on the mean expert opinion suitability value for each habitat type for breeding, foraging, and cover (CDFW 2021).

3.3 Database Resource Assessment

A scoping of the CNDDB was performed to identify existing and historical occurrences of special status wildlife species and sensitive terrestrial communities within the project vicinity. The scoping extended to nine quads surrounding and including the Ukiah 7.5-minute USGS Quadrangles and included the Boonville, Cow Mountain, Elledge Peak, Laughlin Range, Orrs Springs, Potter Valley, Purdy's Gardens and Redwood Valley 7.5-minute USGS Quadrangles. In addition, a 0.25-mile radius scoping area was completed for the identification of northern spotted owl (*Strix occidentalis caurina*, NSO) Activity Centers. No spotted owl territories (Activity Centers) are located within the 0.25-mile buffer.

Prior to the site visit, the databases listed above were accessed to determine whether sensitive biological communities, special-status wildlife species or other sensitive areas were documented within the vicinity of the Study Area (Appendix D: Map 3, CNDDB Vicinity Map). During the site visit, existing habitat conditions were evaluated and used to assess the potential for presence of special-status species. The potential for each special-status wildlife species to occur in the Study Area was then evaluated according to the following criteria:

- No Potential: Habitat on and adjacent to the Study Area is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).
- Low Potential: Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the Study Area is unsuitable or of very poor quality. The species is not likely to be found on-site.
- Moderate Potential: Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the Study Area is suitable. The species has a moderate probability of being found on-site.

- High Potential: All the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the Study Area is highly suitable. The species has a high probability of being found on-site.
- Present: Species is observed on the site or has been recorded (i.e. CNDDB) on-site recently.

A complete list of all special-status wildlife species and communities listed in the nine-quad scoping of the CNDDB as well as those listed in an official USFWS IPaC search of the project area is included in Appendix A: Scoping Table of Special-Status Species and Communities and Potential to occur within the Study Area, and in supporting documents within Appendix E.

3.4 Natural Communities

Natural communities present within the Study Area were classified based on existing plant community descriptions described by Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1986), USDA Forest Service Classification and Assessment with Landsat of Visible Ecological Groupings (CALVEG) system, and the Manual of California Vegetation Online Edition (MCV2 Alliances, CNPS 2021b). However, in some cases it may be necessary to identify variants of community types or to describe non-vegetated areas that are not described in the literature. Biological communities were classified as sensitive or non-sensitive as defined by CEQA and other applicable laws and regulations.

The currently accepted vegetation classification system for the state that is standardly used by CDFW and other state and federal agencies, organizations, and consultants for survey and planning purposes is the *Manual of California Vegetation* (MCV; Sawyer, Keeler-Wolf, and Evans 2009). Unlike Holland, this vegetation classification system is based on the standard National Vegetation Classification System (NVCS) and includes alliances (a floristically defined vegetation unit identified by its dominant and/or characteristic species) and associations (the finer level of classification beneath alliance).

Although the CNDDB still maintains records of some of the old Holland vegetation types, these types are no longer the accepted standard, and the CDFW Vegetation Classification and Mapping Program (VegCAMP) has published more recent vegetation lists for the state based on a standardized vegetation classification system that is currently being developed for California and which is consistent with the MCV classification system. Global and state rarity rankings have been assigned for various types on the recent VegCAMP lists.

3.4.1 Non-sensitive Natural Communities

Non-sensitive natural communities are those communities that are not afforded special protection under CEQA, and other Federal, State, and local laws, regulations, and ordinances. These communities may, however, provide suitable habitat for some special-status plant or wildlife species, and are described in Section 5.1.

3.4.2 Sensitive Natural Communities

Sensitive natural communities include those that are listed in CNDDB as well as MCV2 alliances or associations with state ranks of S1-S3. Aquatic resources (e.g. watercourses, ponds, wetlands, vernal pools, etc.) are also considered sensitive natural communities and are afforded special protections under CEQA and other Federal, State, and local laws, regulations, and ordinances. Sources for assessing sensitive terrestrial or aquatic natural communities include *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986), *List of Vegetation Alliances* (CDFW, 2021), *A Manual of California Vegetation* (CNPS 2021b), and California Streams, USFWS National Wetlands Inventory (NWI).

Sensitive Natural Communities

CDFW considers any MCV2 alliance or association with a state rank of S1-S3 a sensitive natural community. Global and state rankings are defined below.

Global Ranking:

- G1-Critically Imperiled: At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.
- G2-Imperiled: At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.
- G3-Vulnerable: At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors.
- G4-Apparently Secure: Uncommon but not rare; some cause for long-term concern due to declines or other factors.
- G5-Secure: Common; widespread and abundant.

State Ranking:

- S1-Critically Imperiled: Critically imperiled in the state because of extreme rarity (often 5 or fewer populations) or because of factor(s) such as very steep declines making it especially vulnerable to extirpation from the state.
- S2-Imperiled: Imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the state.
- S3-Vulnerable: Vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation from the state.
- S4-Apparently Secure: Uncommon but not rare in the state; some cause for long-term concern due to declines or other factors.
- S5-Secure: Common, widespread, and abundant in the state.

Critical Habitat

Critical habitat is a term defined by the ESA as a specific geographic area that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection. The ESA requires federal agencies to consult with the USFWS to conserve listed species on their lands and to ensure that any activities or projects they fund, authorize, or carry out will not jeopardize the survival of a threatened or endangered species.

Federal agencies must also ensure that their activities or projects do not adversely modify critical habitat to the point that it will no longer aid in the species' recovery. In many cases, this level of protection is similar to that already provided to species by the ESA jeopardy standard. However, areas that are currently unoccupied by the species, but which are needed for the species' recovery, are protected by the prohibition against adverse modification of critical habitat.

Aquatic Resources

Watercourses and other waterbodies were classified using guidance from the *California Forest Practice Rules 2021* (FPR). Wetlands are determined using the USFWS National Wetland Inventory (NWI) database and are defined in the 1987 USACE Wetlands Delineation Manual as "Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." Wetlands generally include swamps, marshes, bogs, and similar areas. Wet areas are areas with observed hydrophytic vegetation and/or other hydrologic indicators that suggest the area is influenced by ponding or flooding for a significant amount of time throughout the growing season. Wet areas should be given the same protections as wetlands for the purposes of this assessment until a wetland delineation is conducted to confirm the presence and extent of wetlands.

3.5 Special-status Species

Special-status wildlife species assessed are of limited abundance in California, with known occurrence or distribution in Mendocino County, and were derived from the following lists:

- Federal listed or threatened or endangered wildlife or species of concern (FT, FE, FSC)
- California State listed or rare, threatened or endangered wildlife or species of concern (SR, ST, SE, SP, SSC)
- Board of Forestry Sensitive (BFS)
- California Department of Fish and Wildlife (CDFW) Status animals: Fully Protected, Species of Special Concern and Watch List (FP, SSC, WL)

The site assessment is intended to identify the presence or absence of suitable habitat for special-status wildlife species known to occur within the Study Area and does not assume presence of such wildlife species. If a special-status wildlife species is observed during the site visit, its presence will be recorded and discussed. All wildlife species observed were recorded and are included in Appendix B.

Section 4.0: Study Area Setting

4.1 Climate and Hydrology

The project site is located just west of Ukiah, CA within Section 18, Township 15N, Range 12W, Mount Diablo Base and Meridian, in the Ukiah USGS 7.5-minute quadrangle, APN: 001-030-01 (Appendix D: Map 1, Vicinity Map). The Study Area is located within the Orrs Creek – Russian River watershed (HUC-12, 180101100403). The average annual precipitation is 41 to 63 inches, the average annual air temperature is 55-60 degrees F, and the average frost-free period is 240 to 340 days.

4.2 Topography and Soils

The Study Area is located at approximately 1,000-1,400 feet in elevation and is underlain by one (1) soil mapping units, according to the United States Department of Agriculture, Natural Resources Conservation Service's *Web Soil Survey*: Map Unit Symbol 151, Hopland-Wohly loams, 50 to 75 percent slopes (Appendix D: Map 4, Soil Map). A description of the soil series is as follows:

Hopland-Wohly loams, 50 to 75 percent slopes (Map Unit Symbol 151): This map unit is on hills and mountains. Included in this unit are small areas of Bearwallow, Cassabonne, Hellman and Squawrock soils. The native vegetation is mainly oaks and scattered pockets of Douglas-fir. The elevation range is 500 to 2,500 feet.

- Hopland soil is moderately deep, well drained soils formed in material weathered from sandstone and shale.

- Wholy soil is moderately deep, well drained soils formed in material weathered from sandstone and shale.

4.3 Biota and Land Use

Regionally, the Study Area has historically been used primarily for timber and firewood production, recreation, homesite development, and wildlife habitat (USDA Web Soil Survey, 2021). Section 5 provides a detailed account of the natural communities found on-site, including sensitive and non-sensitive natural communities and additionally the special-status flora and fauna with potential to occur within the Study Area.

Section 5.0: Field Survey Results

5.1 Natural Communities

The Study Area and immediate surroundings were assessed prior to a site a visit on November 18, 2021 to determine natural communities present and develop a comprehensive list of all wildlife species observed. Natural communities referred to in this report include Holland 1986 descriptions, USFS CALVEG classifications, and the Manual of California Vegetation (MCV2) alliance descriptions.

Holland Descriptions:

The Study Area is within North Coast coniferous forest and Broadleaved upland forest habitat as best classified by the habitat classification system described by Holland 1986. Descriptions of these habitat types are as follows:

- Broadleaved Upland Forest: Stands of evergreen or deciduous, broadleaved trees 5 meters or more tall, forming closed canopies. Many, but not all, with very poorly developed understories. Several are seral to montane conifer forests. It includes the "mixed evergreen forest" of the Coast Ranges.

- North Coast Coniferous Forest: Needle-leaved evergreen trees in usually quite dense stands that may attain impressive heights. Usually on well-drained, moist sites within the reach of summer fogs, but not experiencing much winter snow. This type occurs in the wetter parts of the North Coast Ranges.

USFS CALVEG Classifications:
According to USDA Forest Service CALVEG mapping delineation, the regionally dominant vegetation type within the Study Area is comprised of Oregon white oak and Pacific Douglas-fir, (Appendix D: Map 5, CALVEG Classification Map). Descriptions of these vegetation types are as follows:

- Pacific Douglas-Fir: Douglas-fir (*Pseudotsuga menziesii*) is the dominant overstory conifer over a large area in the Mountains, Coast, and Ranges Sections. This alliance has been mapped at various densities in most subsections of this zone at elevations usually below 5600 feet (1708 m). Tanoak (*Lithocarpus densiflorus var. densiflorus*) is the most common hardwood associate on mesic sites towards the west. Along western edges of the Mountains Section, a scattered overstory of Douglas-fir often exists over a continuous Tanoak understory with occasional Madrones (*Arbutus menziesii*). Canyon Live Oak (*Quercus chrysolepis*) becomes an important hardwood associate on steeper or drier slopes and those underlain by shallow soils. Black Oak (*Q. kelloggii*) may often associate with this conifer but usually is not abundant. In addition, any of the following tree species may be sparsely present in Douglas-fir stands: Redwood (*Sequoia sempervirens*), Ponderosa Pine (*Pinus ponderosa*), Incense Cedar (*Calocedrus decurrens*), White Fir (Abies concolor), Oregon White Oak (*Q. garryana*) and Bigleaf Maple (*Acer macrophyllum*), among others. The shrub understory may also be quite diverse and includes a wide range of shrubs and forbs.

- Oregon White Oak: Oregon White Oak (*Quercus garryana*) is widely distributed from British Columbia to this zone, with outlying scattered populations further east and south to the Sierra Nevada Mountains and southern California. The tree form (*Q. g.* var. *garryana*) becomes a local canopy dominant in woodlands of the three sections of this zone across thirty-one subsections, becoming especially prominent in seven of them. Mapped elevations of this type are usually below about 5800 feet (1768 m). Often developing on poor, exposed or droughty soils in inland valleys, foothills or rocky ridges, the Oregon White Oak type also is found in poorly drained areas having occasional standing water or next to stream terraces. On better sites, it is usually out-competed by species such as Douglas-fir (*Pseudotsuga menziesii*) and California Black Oak (*Q. kelloggii*), often becoming a minor element in mixed hardwood types. Other associated species include other conifers such as Ponderosa Pine (*Pinus ponderosa*), Gray Pine (*P. sabiniana*) and various Oaks (*Quercus spp.*). Open sites often have a grass understory.

MCV2 Alliances:
Natural communities observed were classified using data collected in the field and the Manual of California Vegetation Online Edition (MCV2 Alliances, CNPS 2021b). Two (2) MCV2 Alliance communities (Appendix D: Map 6: MCV2 Classification Map) were observed on site:

- *Quercus garryana* Forest & Woodland Alliance: Oregon white oak forest and woodland
- *Pseudotsuga menziesii* Forest & Woodland Alliance: Douglas-fir forest and woodland

Detailed descriptions of these communities are as follows:

Quercus garryana Forest & Woodland Alliance: Oregon white oak forest and woodland:

- Characteristics Species: *Quercus garryana* var. *garryana* is dominant or co-dominant in the tree canopy with *Juniperous occidentalis, Pinus jeffreyi, Pinus ponderosa, Pinus sabiniana, Pseudotsuga menziesii, Quercus chrysolepis, Quercus kelloggii* and *Umbellularia californica.*
- Vegetation Layers: Trees < 30 m; canopy is open to continuous. Shrub layer is usually open. Herbaceous layer is open to intermittent and mostly grassy.
- Membership Rules:
    - *Quercus garryana* > 30% relative cover in the tree canopy; > 25% absolute cover and lacking an appreciable conifer cover.
    - *Quercus garryana* > 30% relative cover in the tree canopy often with other oaks such as *Q. kelloggii*.
- Habitats: Raised stream benches, terraces, slopes. and ridges of all aspects.
- State Rarity Rank: S3
- Global Rarity Rank: G4

Pseudotsuga menziesii Forest & Woodland Alliance; Douglas-fir forest and woodland:

- Characteristic Species: *Pseudotsuga menziesii* is dominant or co-dominant with hardwoods in the tree canopy with *Abies concolor, Acer macrophyllum, Alnus rhombifolia, Arbutus menziesii, Calocedrus decurrens, Chamaecyparis lawsoniana, Cornus nuttali, Pinus contorta, Pinus lambertianana, Quercus agrifolia., Quercus chrysolepis, Quercus garryana, Quercus kelloggii,* and *Sequoia sempervirens*.
- Vegetation Layer: Trees <75m; canopy intermittent to continuous, and it may be two-tiered. Shrubs are infrequent or common. Herbaceous layer is sparse or abundant.
- Membership rules:
    - *Pseudotsuga menziesii* > 50% relative cover in the tree canopy and reproducing successfully, though hardwoods may dominate or co-dominate in the subcanopy and regeneration layer; *Abies concolor, Chamaecyparis lawsoniana, Pinus contorta, P. ponderosa, and Sequoia sempervirens* <20% relative cover; and *Notholithocarpus densiflorus* <10% relative cover in the tree canopy.
- Habitats: All topographic positions and aspects. Substrates various, including serpentine.
- State Rarity Rank: S4
- Global Rarity Rank: G5

5.1.1 Non-sensitive Natural Communities

Non-sensitive natural communities are those communities that are not afforded special protection under CEQA, and other Federal, State, and local laws, regulations, and ordinances. The Study Area is comprised of one (1) non-sensitive natural community, as classified under the MCV2 system:

Pseudotsuga menziesii Forest & Woodland Alliance: Douglas-fir forest and woodland
CDFW State Rarity Rank: S4 (Apparently Secure)

5.1.2 Sensitive Natural Communities

Sensitive natural communities include those that are listed in CNDDB as well as observed MCV2 alliances or associations with state ranks of S1-S3 and are listed on CDFW's *List of California Sensitive Natural Communities* (CDFW 2021). Aquatic resources (e.g. watercourses, ponds, wetlands, vernal pools, etc.) are also considered sensitive communities and may be afforded special protections under CEQA and other Federal, State, and local laws, regulations, and ordinances. Sensitive natural communities observed within the Study Area are listed and discussed below:

Sensitive Natural Communities:
Quercus garryana Forest & Woodland Alliance: Oregon white oak forest and woodland
CDFW State Rarity Rank: S3 (Vulnerable).

Recommendations to avoid or mitigate potential impacts to sensitive natural communities are discussed in Section 6.0, Assessment Summary and Recommendations.

Aquatic Resources:
Watercourses and waterbodies: The Study Area contains one (1) Class III watercourse that the proposed trail will be crossing.

Wetlands: The Study Area is approximately 200 feet south of one (1) Class II watercourse, a tributary to Orrs Creek. This watercourse is mapped as a Riverine Wetland System according to the USFWS National Wetland Inventory (Appendix D: Map 7, NWI mapped wetlands). The wetland is classified as a Riverine System which includes all wetland and deepwater habitats contained within a channel. Riverine Systems are considered watercourses for the purposes of this assessment and are afforded special protections under CEQA, Federal, State, and local laws, regulations, and ordinances as such.

Recommendations to avoid or mitigate potential impacts to aquatic resources are discussed in Section 6.0, Assessment Summary and Recommendations.

5.2 Special-status Species

A total of forty-six (46) special-status wildlife species have been documented within the vicinity of the Study Area. Please refer to Appendix A for a table of all special-status wildlife species which occur within the vicinity of the Study Area and discussion of the potential for each species to occur within the Study Area. Special-status species documented within five miles of the Study Area are depicted in the CNDDB Vicinity map (Appendix D: Map 3, CNDDB Vicinity Map). Of the forty-six (46) special-status wildlife species within the vicinity of the Study Area, eleven (11) special-status wildlife species recorded have a moderate to high potential to occur within the Study Area. The remaining thirty-five (35) special-status wildlife species documented within the vicinity of the Study Area are unlikely to occur or do not have the potential to occur due to one or more of the following reasons:

- Aquatic Habitats (e.g., streams, rivers, vernal pools) necessary to support special-status wildlife species are not present within the Study Area.

- Vegetation Habitats (e.g., forested area, riparian, grassland) that provide nesting and/or foraging resources necessary to support special-status wildlife species are not present within the Study Area.
- Physical Structures and Vegetation (e.g., caves, old-growth trees) that provide nesting, cover, and/or foraging habitat necessary to support special-status wildlife species are not present within the Study Area.
- Host Plants (e.g., *Cirsium sp.*) that provide larval and nectar resources necessary to support special-status wildlife species are not present within the Study Area.
- Historic and Contemporary Disturbance (e.g., cattle grazing, agriculture) deter the presence of the special-status wildlife species from occupying the Study Area.
- The Study Area is outside the documented nesting range of special-status wildlife species.

The eleven (11) special-status wildlife species with moderate or high potential to occur within the Study Area are described in the table below.

SPECIES	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
Amphibians			
red-bellied newt *Taricha rivularis* CDFW: SSC IUCN: LC G2 S2	*T. rivularis* inhabits coastal forests, typically in redwood (*Sequoia sempervirens*) forest habitat although also found in other forest types (hardwood etc.). Adults are terrestrial and fossorial. Transformed juveniles leave aquatic environments and go into hiding in underground shelters, often until ready to reproduce. Breeding occurs in streams often with relatively strong flows.	**High Potential.** Habitat within the Study Area is ranked Medium (0.66) to High (1.00) in suitability according to the CWHR Predicted Habitat Suitability Map. Aquatic habitat is not present within the Study Area; however, the Study Area may be used for migration and refugia. There is a known occurrence of this species approximately 600 feet south from the Study Area along Gibson Creek according to CNDDB.	**Not Observed.** This species was not observed during the biological assessment. Please see section 6.2 for further recommendations.

SPECIES	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
Avifauna			
northern goshawk *Accipiter gentilis* BLM: S CDF: S CDFW: SSC IUCN: LC USFS: S G5 S3	*A. gentilis* are often found in dense, mature and old growth stands of conifer and deciduous habitats. Younger seral stands that include larger residual or defective trees are also used. Nest often on cooler (northerly or easterly) moderate slopes in dense vegetation or within riparian zones, but close to openings. Nest sites are often located next to water, which may provide a break in canopy for easy access to the nest stand or may influence microclimate or prey distribution.	**High Potential.** Habitat within the Study Area is ranked Medium (0.44) and High (1.00) in suitability according to the CWHR Predicted Habitat Suitability Map. There are no stands of dense, mature and old growth conifer or deciduous forest within the Study Area; however, the Study Area is located within conifer and deciduous forest stands.	**Not Observed.** This species or nests were not observed during the biological assessment. Please see section 6.2 for further recommendations.
golden eagle *Aquila chrysaetos* BLM: S CDF: S CDFW: FP, WL IUCN: LC USFWS: BCC G5 S3	*A. chrysaetos* is an uncommon permanent resident in northern California. This species ranges from sea level up to 11,500 feet inhabiting rolling foothills, mountain areas, sage-juniper flats and desert. This species frequently nests in secluded cliffs of all heights with overhanging ledges and in large trees in open areas.	**High Potential.** Habitat within the Study Area is ranked High (0.77) in suitability according to the CWHR Predicted Habitat Suitability Map. The Study Area is located within conifer and deciduous forest stands.	**Not Observed.** This species or nests were not observed during the biological assessment. Please see section 6.2 for further recommendations.
osprey *Pandion haliaetus* CDF: S CDFW: WL IUCN: LC G5 S4	*P. haliaetus* are strictly associated with large, fish bearing waters, primarily in ponderosa pine and mixed conifer stands. Foraging habitat consists of open, clear waters, rivers, lakes, reservoirs, estuaries, lagoons, swamps, marshes, and bays. Diet consists almost exclusively live fish. Large trees, snags, and blown-out treetops are used for cover and nesting. Nests are located on or near the tops of trees, snags, cliffs, or human-made structures.	**High Potential.** Habitat within the Study Area is ranked High (0.66) in suitability according to the CWHR Predicted Habitat Suitability Map. There are no stands of dense, mature and old growth conifer or deciduous forest within the Study Area; however, the Study Area is located within conifer and deciduous forest stands.	**Not Observed.** This species or nests were not observed during the biological assessment. Please see section 6.2 for further recommendations.

SPECIES	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
northern spotted owl *Strix occidentalis caurina* FT, ST CDF: S IUCN: NT NABCI: YWL G3G4T3 S2	*S. occidentalis caurina* are year-round residents in dense, structurally complex forests, primarily with old-growth conifers. Nests on snags and within tree cavities, and often is associated with existing structures (old raptor nests, squirrel nests and *A. pomo* nests).	**Moderate Potential.** The Study Area is approximately 3.7 miles southeast from the closest NSO Activity Center and 4.5 miles northeast from the nearest critical habitat as identified by the USFWS. The Study Area is located within suitable habitat according to the CWHR Predicted Habitat Suitability Map. The Study Area does not contain large conifers for nesting but may provide suitable foraging habitat for this species.	**Not Observed.** This species or evidence of this species was not observed during the biological assessment. Please see section 6.2 for further recommendations.
Insects			
western bumble bee *Bombus occidentalis* State: CE USFS: S Xerces: IM G2G3 S1	The habitat for this species is described as open grassy areas, urban parks and gardens, chaparral and shrub areas, and mountain meadows. typically nests underground in abandoned rodent burrows or other cavities Food plants of *Bombus occidentalis* include *Ceanothus, Centaurea, Chrysothamnus, Cirsium, Geranium, Grindellia, Lupinus, Melilotus, Monardella, Rubus, Solidago*, and *Trifolium.*	**Moderate Potential.** The Study Area does not contain open meadows or grassland; however, grassland is present underneath the conifer and deciduous forest canopy.	**Not Observed.** This species was not observed during the biological assessment. Please see section 6.2 for further recommendations.
Mammals			
Sonoma tree vole *Arborimus pomo* CDFW: SSC IUCN: NT G3 S3	*A. pomo* is distributed along the North Coast from Sonoma County north to the Oregon border, practically restricted to the fog belt in humid coastal forests consisting of Douglas-fir, grand fir, western hemlock, and/or Sitka spruce. This species requires Douglas-fir and grand fir needles as a food source and nesting materials. Nests are frequently found in trees along the bole, in branch crotches, or in the top of snags. Nests are most often found along roads, skid trails, or forest edges; however, they could exist further in the forest with dense canopy.	**Moderate Potential.** Habitat within the Study Area is not suitable in some areas, ranking Low (0.33) to Medium (0.66) within the conifer forest habitat according to the CWHR Predicted Habitat Suitability Map. The Study Area does contain Douglas-fir trees and may provide suitable habitat for this species.	**Not Observed.** This species was not observed during the biological assessment. Please see section 6.2 for further recommendations.

SPECIES	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
North American porcupine *Erethizon dorsatum* IUCN: LC G5 S3	*E. dorsatum* are commonly found in coniferous and mixed forested areas, and can also inhabit shrublands, tundra and deserts, albeit less frequently as this species tends to spend much of its time in trees. This herbivore eats leaves, twigs, and green plants like Skunk cabbage (*Symplocarpus foetidus*) and clovers (*Trifolium spp.*). This species makes its dens in hollow trees, decaying logs and caves in rocky areas. Recognized as primarily solitary and nocturnal, *E. dorsatum* may be seen foraging during daytime.	**Moderate Potential.** Habitat within the Study Area is ranked Low (0.33) to Medium (0.55) to High (0.77) within the conifer forest habitat according to the CWHR Predicted Habitat Suitability Map. The Study Area may contain suitable habitat for this species.	**Not Observed.** This species was not observed during the biological assessment. Please see section 6.2 for further recommendations.
western red bat *Lasiurus blossevillii* CDFW: SSC IUCN: LC WBWG: H G4 S3	*L. blossevillii* roosts primarily in trees, often 2-40ft above the ground from sea level through mixed conifer forests. Typical habitats include cismontane woodland, lower montane coniferous forest, riparian forests and woodlands. This species prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging.	**Moderate Potential.** Habitat within the Study Area is ranked Medium (0.55) within the conifer forest habitat according to the CWHR Predicted Habitat Suitability Map. The Study Area may contain suitable habitat for this species.	**Not Observed.** This species was not observed during the biological assessment. Please see section 6.2 for further recommendations.
hoary bat *Lasiurus cinereus* CDFW: SSC IUCN: LC WBWG: M G3G4 S3	*L. cinereus* are yearlong residents of Mendocino County. This bat is one of the few bats knows to both migrate south for winter and to hibernate locally. Hoary bat daytime roosts are typically dense foliage of medium to large sized trees. This bat occupies a variety of habitats including dense forest, forest edges, coniferous forests, deserts, and broadleaf forests.	**Moderate Potential.** Habitat within the Study Area is ranked Moderate (0.55) within the conifer forest habitat according to the CWHR Predicted Habitat Suitability Map. The Study Area may contain suitable habitat for this species.	**Not Observed.** This species was not observed during the biological assessment. Please see section 6.2 for further recommendations.

SPECIES	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
fisher [West Coast DPS] *Pekania pennanti* ST CDFW: SSC USFS: S G5 S2S3	*P. pennanti* are primarily solitary, except during breeding season (February – April and they inhabit forest stands with late-successional characteristics including intermediate-to-large tree stages of coniferous forest and deciduous-riparian areas with high percent canopy closure. Den site and prey availability are often associated with these characteristics. *P. pennanti* use cavities, snags, logs and rocky areas for cover and denning and require large areas of mature, dense forest.	**Moderate Potential.** Habitat within the Study Area is ranked Low (0.33) to Medium (0.66) to High (0.88) within the conifer forest habitat according to the CWHR Predicted Habitat Suitability Map. The Study Area may contain suitable habitat for this species; however, large old growth trees are not present.	**Not Observed.** This species was not observed during the biological assessment. Please see section 6.2 for further recommendations.

No special status wildlife species were observed within the Study Area during the biological site assessment on November 18, 2021. A complete list of all wildlife species observed within the Study Area was compiled during the site visit and is listed in Appendix B.

Section 6.0: Assessment Summary and Recommendations

6.1 Natural Communities

The Study Area and immediate surroundings were assessed during the biological site assessment on November 18, 2021 to determine natural communities and individual wildlife species present. Natural communities observed were classified using data collected in the field and the Manual of California Vegetation Online Edition (MCV2 Alliances, CNPS 2021b). The Study Area contains one (1) non-sensitive natural community, one (1) sensitive natural community, and one (1) Class III watercourse (Appendix D: Map 5, MCV2 Alliance Classifications).

Non-Sensitive Natural Communities:

Non-sensitive natural communities are those communities that are not afforded special protection under CEQA, and other Federal, State, and local laws, regulations, and ordinances. One (1) non-sensitive natural community was observed within the Study Area and are listed below:

Pseudotsuga menziesii Forest & Woodland Alliance: Douglas-fir forest and woodland
CDFW State Rarity Rank: S4 (Apparently Secure). A detailed description of this natural community is discussed in section 5.1. There are no recommendations for non-sensitive communities.

Sensitive Natural Communities:

Sensitive natural communities include those that are listed in CNDDB as well as observed MCV2 alliances or associations with state rarity ranks of S1-S3 and are listed on CDFW's *List of California Sensitive Natural Communities* (CDFW 2021). One (1) sensitive community, as classified under the MCV2 alliance classification system, exist within the Study Area and was observed on-site. More detailed descriptions of these sensitive communities are discussed in Section 5.1.2.

Quercus garryana Forest & Woodland Alliance (Oregon white oak forest and woodland): This community has a Global Rarity Rank of G4 (Apparently Secure) and a State Rarity Rank of S3 (Vulnerable). It is recommended that any proposed work within or in the vicinity of this community avoid the removal of *Quercus garryana*. This community may also provide habitat for nesting birds protected by the Migratory Bird Treaty Act (MBTA) and it is recommended that nesting bird surveys be conducted for any activities that require vegetation removal between March 1st and August 31st of any year. Other management considerations for the preservation of this community include thinning or removal of conifer species within the stand in accordance with local laws, regulations, and ordinances. Such thinning could limit the possibility of vegetation type conversion to closed-canopy woodlands and conifer forest and inhibit the development of fuel ladders that increase the potential for stand-replacing fires. Any removal of *Quercus garryana* cannot be done without consultation with CDFW, and all work within this community shall adhere to CDFW recommendations. It is the understanding of Jacobszoon & Associates, Inc. that removal of trees 6" DBH and larger is not proposed for the development of the trail.

Sensitive Aquatic Communities:

Aquatic resources, communities, and habitats (e.g. watercourses, ponds, wetlands, vernal pools, etc.) are considered sensitive communities and are afforded special protections under CEQA and other Federal, State, and local laws, regulations, and ordinances. Aquatic habitats present within the Study Area could provide suitable aquatic or riparian habitats for sensitive flora and fauna.

Watercourses and waterbodies: One (1) Class III watercourse was observed within the Study Area. Recommendations for aquatic resources are listed below:

- It is recommended that all earthwork within or adjacent to any watercourse or other body of water adhere to standard methods of erosion and sediment control and, if possible, to complete all work while the channel is dry to reduce sediment load downstream.

Wetlands: The Study Area is located approximately 200 feet south of a mapped riverine wetland, a Class II tributary to Orrs Creek, according to the USFWS National Wetland Inventory (NWI) (Appendix D: Map 7, NWI mapped wetlands). The wetland is classified as a riverine habitat (R4SBC). R4SBC is a riverine intermittent system with a streambed and is seasonally flooded. Riverine systems are considered watercourses for the purposes of this assessment. There are no recommendations for wetlands are necessary at this time. The proposed project will not impact this wetland.

6.2 Special-status Wildlife Species

Eleven (11) special-status wildlife species have a moderate or high potential to occur within the Study Area based on habitat features present. These species include red-bellied newt *(Taricha rivularis),* northern goshawk (*Accipiter gentilis*), golden eagle (*Aquila chrysaetos),* osprey (*Pandion haliaetus*), northern spotted owl (*Strix occidentalis caurina*), western bumble bee (*Bombus occidentalis*), Sonoma tree vole (*Arborimus pomo*), North American porcupine (*Erethizon dorsatum*), western red bat (*Lasiurus blossevillii*), hoary bat (*Lasiurus cinereus*), and fisher [West Coast DPS] (*Pekania pennanti*). No special status wildlife species were observed within the Study Area during the biological site assessment.

Amphibians

One (1) special-status amphibian has a moderate or high potential to occur within the Study Area; red-bellied newt *(Taricha rivularis).*

Recommendations for this species are listed below:

- It is recommended that the Study Area be surveyed prior to any ground disturbing activities to determine the presence of special-status amphibian species.

No special-status amphibian species were observed within the Study Area during the biological site assessment.

Avifauna

Four (4) special-status avian species have moderate or high potential to occur within the Study Area. These species include northern goshawk (*Accipiter gentilis*), golden eagle (*Aquila chrysaetos),* osprey (*Pandion haliaetus*), and northern spotted owl (*Strix occidentalis caurina*). Additionally, most non-game bird species in California are protected under the Migratory Bird Treaty Act (MBTA) which prohibits the deliberate destruction of active nests belonging to protected species. Groundbreaking activities, specifically vegetation removal, within the Study Area during avian breeding periods have the potential to significantly impact nesting migratory bird species.

Recommendations for special-status avian species and migratory bird species are listed below:

- It is recommended that all active bird nests not be removed, relocated, or otherwise disturbed for any purpose until all fledglings have left the nest.
- It is recommended that nesting bird surveys be conducted prior to the commencement of any groundbreaking activities which occur between March 1st and August 31st of any year.

No avian special-status species were observed within the Study Area during the biological assessment.

Fish

The Study Area does not contain any special-status fish species or fish bearing watercourses or waterbodies. The nearest fish-bearing watercourse is a Class I watercourse, Orrs Creek, located approximately 2,250 feet northeast of the Study Area. It is recommended that all earthwork within or adjacent to any watercourse or waterbody adhere to standard methods of erosion and sediment control. Future development within the Study Area does not have the potential to impact special-status fish species. No special-status fish were observed during the biological site assessment.

Insects

One (1) special-status insect species have moderate or high potential to occur within the Study Area; western bumble bee (*Bombus occidentalis*).

Recommendations for special-status insect species are listed below:

- If a special-status insect nests are observed, it is recommended that active nests not be removed, relocated, or otherwise disturbed until the nest becomes inactive.

No special-status insects or nests were observed within the Study Area during the biological site assessment.

Mammals

Five (5) special-status mammal species have moderate or high potential to occur within the Study Area. These species include the Sonoma tree vole (*Arborimus pomo*), North American porcupine (*Erethizon dorsatum*), western red bat (*Lasiurus blossevillii*), hoary bat (*Lasiurus cinereus*), and fisher [West Coast DPS] (*Pekania pennanti*).

Recommendations for special-status mammal species are listed below:

- If evidence of bat roosts are observed (i.e. bat guano, ammonia odor, grease stained cavities) around trees or structures, it is recommended that pre-construction bat surveys be conducted by a qualified biologist for activities that may affect bat roosting habitat.
- If evidence of special-status mammal borrows or denning activity is observed, it is recommended that pre-construction surveys be conducted by a qualified biologist for activities that may affect den sites.

No special-status mammals were observed during the biological site assessment. No evidence of special-status mammal species was observed during the biological site visit.

6.3 Wildlife Corridors

No change to foraging or wintering habitat for migratory birds is expected as a result of the proposed trail. Additionally, no significant impacts to migratory corridors for amphibian, aquatic, avian, mammalian, or reptilian species is expected as a result of the proposed project.

6.4 Critical Habitat

The Study Area does not contain and is not adjacent to critical habitat for any Federal or State-listed species (Appendix E: USFWS IPAC Official Species List).

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Appendix A: Table of Potential for Special-Status Wildlife within the Study Area

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
Amphibians				
California giant salamander *Dicamptodon ensatus*	CDFW: SSC IUCN: NT G3 S2S3	California giant salamanders are year-round residents of California and were split into two species – California giant salamander (*Dicamptodon ensatus*) occurring south of the Mendocino County line and the coastal giant salamander (*Dicamptodon tenebrosus*) occurring in the north. *D. ensatus* are found in meadows and seeps, north coast coniferous forest and riparian forested habitats. *D. ensatus* occur in wet coastal forests in or near clear, cold permanent and semi-permanent streams and seepages. Adults leave terrestrial habitats to reproduce and both the reproduction and larval stages are aquatic with breeding occurring mostly in the spring.	**No Potential.** The Study Area is outside the known distribution range for this species according to the CWHR Predicted Habitat Suitability Map.	**Not Present.** There are no recommendations for this species.
northern red-legged frog *Rana aurora*	CDFW: SSC IUCN: LC USFS: S G4 S3	*R. aurora* are often observed within humid forests, woodlands, wetlands, grasslands and stream-sides in northwestern California, usually near dense riparian cover. This species is generally found near permanent water but can be found far from water in damp woods and meadows during the non-breeding season. Typical habitat types include Klamath/North coast flowing waters, riparian forest and woodland.	**No Potential.** The Study Area is outside the known distribution range for this species according to the CWHR Predicted Habitat Suitability Map.	**Not Present.** There are no recommendations for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
foothill yellow-legged frog *Rana boylii*	*SE/ST CDFW: SSC BLM: S IUCN: NT USFS: S G3 S3	The foothill yellow-legged frog is found in or near rocky streams in a variety of habitats, including valley-foothill hardwood, valley-foothill hardwood-conifer, valley-foothill riparian, ponderosa pine, mixed conifer, coastal scrub, mixed chaparral, and wet meadow types. * CESA listing status varies by clade as follows: Southwest/South Coast, West/Central Coast, and East/Southern Sierra clades are endangered; northeast/Northern Sierra and Feather River clades are threatened; listing of the Northwest/North Coast clade is not warranted.	**Low Potential.** Habitat within the Study Area is ranked Low (0.33) in suitability according to the CWHR Predicted Habitat Suitability Map. The Study Area itself does not contain streams that would provide suitable habitat for this species; however, potential suitable winter refugia habitat may be in a Class II tributary to Orrs Creek located approximately 200 feet north of the Study Area.	**Not Observed.** This species was not observed during the biological assessment. Please see section 6.2 for further recommendations.
California red-legged frog *Rana draytonii*	FT CDFW: SSC IUCN: VU G2G3 S2S3	California red-legged frogs (CRLF) primarily inhabit permanent or nearly permanent water sources (quiet streams, marshes, and ponds) containing shorelines with extensive vegetation. Breeding tends to occur primarily in ponds, less likely in streams, and happens from November to April. This ranid frog will also use upland habitats outside of the breeding season and may be discovered under logs, rocks, and other debris during wet conditions.	**No Potential.** The Study Area is outside the known distribution range for this species according to the CWHR Predicted Habitat Suitability Map.	**Not Present.** There are no recommendations for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
red-bellied newt *Taricha rivularis*	CDFW: SSC IUCN: LC G2 S2	*T. rivularis* inhabits coastal forests, typically in redwood (*Sequoia sempervirens*) forest habitat although also found in other forest types (hardwood etc.). Adults are terrestrial and fossorial. Transformed juveniles leave aquatic environments and go into hiding in underground shelters, often until ready to reproduce. Breeding occurs in streams often with relatively strong flows.	**High Potential.** Habitat within the Study Area is ranked Medium (0.66) to High (1.00) in suitability according to the CWHR Predicted Habitat Suitability Map. Aquatic habitat is not present within the Study Area; however, the Study Area may be used for migration and refugia. There is a known occurrence of this species approximately 600 feet south from the Study Area along Gibson Creek according to CNDDB.	**Not Observed.** This species was not observed during the biological assessment. Please see section 6.2 for further recommendations.
Avifauna				
northern goshawk *Accipiter gentilis*	BLM: S CDF: S CDFW: SSC IUCN: LC USFS: S G5 S3	*A. gentilis* are often found in dense, mature and old growth stands of conifer and deciduous habitats. Younger seral stands that include larger residual or defective trees are also used. Nest often on cooler (northerly or easterly) moderate slopes in dense vegetation or within riparian zones, but close to openings. Nest sites are often located next to water, which may provide a break in canopy for easy access to the nest stand or may influence microclimate or prey distribution.	**High Potential.** Habitat within the Study Area is ranked Medium (0.44) and High (1.00) in suitability according to the CWHR Predicted Habitat Suitability Map. There are no stands of dense, mature and old growth conifer or deciduous forest within the Study Area; however, the Study Area is located within conifer and deciduous forest stands.	**Not Observed.** This species or nests were not observed during the biological assessment. Please see section 6.2 for further recommendations.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
tricolored blackbird *Agelaius tricolor*	ST BLM: S CDFW: SSC IUCN: EN NABCI: RWL USFWS: BCC G1G2 S1S2	*A. tricolor* breed and forage in a variety of habitats including salt marshes, moist grasslands, freshwater marshes, bay-shore habitats, riparian forests and oak savannahs. *A. tricolor* use dense riparian vegetation such as Himalayan blackberry (*Rubus armeniacus*) for nesting and forage in cultivated fields, wetlands, and feedlots associated with dairy farms.	**No Potential.** The Study Area is outside the known distribution range for this species according to the CWHR Predicted Habitat Suitability Map. Riparian forests with dense vegetation are not present within the Study Area.	**Not Present.** There are no recommendations for this species.
grasshopper sparrow *Ammodramus savannarum*	CDFW: SSC IUCN: LC G5 S3	*A. savannarum* are an uncommon and local, summer resident in foothills and lowlands west of the Cascade- Sierra Nevada crest from Mendocino and Trinity Counties south to San Diego County. *A. savannarum* nests on the ground in grasslands, prairie, cultivated fields, and grassy clearings in forests; particularly in areas with a variety of grasses and tall forbs and scattered shrubs for singing perches. Nests are typically found at the base of a small clump of overhanging grass or other vegetation, perhaps in close proximity to other breeding grasshopper sparrows, and this species may double or triple clutch.	**No Potential.** The Study Area does not have suitable habitat present according to the CWHR Predicted Habitat Suitability Map. Small patches of suitable habitat are present within the surrounding area.	**Not Present.** There are no recommendations for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
golden eagle *Aquila chrysaetos*	BLM: S CDF: S CDFW: FP, WL IUCN: LC USFWS: BCC G5 S3	Golden eagles live in open and semi-open country featuring native vegetation across most of the Northern Hemisphere. They avoid developed areas and uninterrupted stretches of forest. They are found primarily in mountains up to 12,000 feet, canyonlands, rimrock terrain, and riverside cliffs and bluffs. Golden eagles nest on cliffs and steep escarpments in grassland, chapparal, shrubland, forest, and other vegetated areas.	**High Potential.** Habitat within the Study Area is ranked High (0.77) in suitability according to the CWHR Predicted Habitat Suitability Map. The Study Area is located within conifer and deciduous forest stands.	**Not Observed.** This species or nests were not observed during the biological assessment. Please see section 6.2 for further recommendations.
great egret *Ardea alba*	CDF: S IUCN: LC G5 S4	Great egrets live in freshwater, brackish, and marine wetlands. During the breeding season they live in colonies in trees or shrubs with other waterbirds. The colonies are located on lakes, ponds, marshes, estuaries, impoundments, and islands. Great egrets use similar habitats for migration stopover sites and wintering grounds. They hunt in marshes, swamps, streams, rivers, ponds, lakes, impoundments, lagoons, tidal flats, canals, ditches, fish-rearing ponds, flooded farm fields, and sometimes upland habitats.	**No Potential.** The Study Area is outside the known distribution range for this species according to the CWHR Predicted Habitat Suitability Map.	**Not Present.** There are no recommendations for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
great blue heron *Ardea herodias*	CDF: S IUCN: LC G5 S4	Great blue herons live in both freshwater and saltwater habitats, and also forage in grasslands and agricultural fields, where they stalk frogs and mammals. Most breeding colonies are located within 2 to 4 miles of feeding areas, often in isolated swamps or on islands, and near lakes and ponds bordered by forests.	**Low Potential.** Habitat within the Study Area is ranked Low (0.22) to Medium (0.44) in suitability according to the CWHR Predicted Habitat Suitability Map. The Study Area itself contains no nesting or foraging habitat suited for this species, as the Study Area is located within conifer and deciduous forest stands.	**Not Present.** This species was not observed during the biological assessment. Please see section 6.2 for further recommendations.
western snowy plover *Charadrius alexandrinus nivosus*	FT CDFW: SSC NABCI: RWL USFWS: BCC G3T3 S2	The Pacific coast population of the snowy plover is defined as those individuals that nest adjacent to tidal waters of the Pacific Ocean, and includes all nesting birds on the mainland coast, peninsulas, offshore islands, adjacent bays, estuaries, and coastal rivers. The current known breeding range of this population extends from Damon Point, Washington, to Bahia Magdelena, Baja California, Mexico. The Pacific coast population of the western snowy plover breeds primarily on coastal beaches from southern Washington to southern Baja California, Mexico. The population breeds above the high tide line on coastal beaches, sand spits, dune-backed beaches, sparsely vegetated dunes, beaches at creek and river mouths, and salt pans at lagoons and estuaries. Less common nesting habitat includes bluff-backed beaches, dredged material disposal sites, salt pond levees, dry salt ponds, and river bars. Suitable nesting habitat is distributed throughout the listed range but may be widely separated by areas of rocky shoreline.	**No Potential.** The Study Area is outside the known distribution range for this species according to the CWHR Predicted Habitat Suitability Map.	**Not Present.** There are no recommendations for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
northern harrier *Circus hudsonius*	CDFW: SSC IUCN: LC G5 S3	*C. hudsonius* are year-long residents of Mendocino and Lake County. They frequent meadows, alpine meadows, grasslands, open rangelands, desert sinks, fresh and saltwater emergent wetlands and are seldom found in wooded areas. This species usually hunts by flying low over fields, scanning the ground for small prey. Breeding occurs on meadows and marshland, both salt and freshwater. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.	**No Potential.** The Study Area does not have suitable habitat present according to the CWHR Predicted Habitat Suitability Map. Small patches of suitable habitat are present within the surrounding area.	**Not Present.** There are no recommendations for this species.
western yellow-billed cuckoo *Coccyzus americanus occidentalis*	FT SE BLM: S NABCI: RWL USFS: S USFWS: BCC G5T2T3 S1	Western yellow-billed cuckoos breed in large blocks of riparian habitats (particularly woodlands with cottonwoods and willows). Dense understory foliage appears to be an important factor in nest site selection. This species makes their nests along horizontal branches or the fork of a tree or large shrub, often between 3 to 90 feet (1 to 28 meters). Trees are often oak (*Quercus* sp.), beech, hawthorn (*Crataegus* sp.) and ash, often with lower story of blackberry, nettles, or wild grapes. This species can be found from Southern Humboldt to Southern Mendocino County. Patches of Chico, Yuba City. Santa Rosa, and Elk Grove.	**No Potential.** The Study Area is outside the known distribution range for this species according to the CWHR Predicted Habitat Suitability Map.	**Not Present.** There are no recommendations for this species.
white-tailed kite *Elanus leucurus*	BLM: S CDFW: FP IUCN: LC G5 S3S4	Often found in coastal, valley lowlands and agricultural areas, *E. leucurus* inhabit undisturbed, open grasslands, meadows, farmlands, and emergent wetlands. Nests are often found in isolated, dense-topped trees.	**No Potential.** The Study Area does not have suitable habitat present according to the CWHR Predicted Habitat Suitability Map. Small patches of suitable habitat are present within the surrounding area.	**Not Present.** There are no recommendations for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
yellow-breasted chat *Icteria virens*	CDFW: SSC IUCN: LC G5 S3	*I. virens* inhabit riparian thickets of willow and other brushy tangles near watercourses. Required habitat for this species is riparian forest, woodland, or scrub. Nests in low, dense riparian habitat often consisting of willow, blackberry, and wild grape within 10ft. of the ground.	**No Potential.** The Study Area is outside the known distribution range for this species according to the CWHR Predicted Habitat Suitability Map.	**Not Present.** There are no recommendations for this species.
Lewis' woodpecker *Melanerpes lewis*	IUCN: LC NABCI: YWL USFWS: BCC G4 S4	*M. lewis* often inhabit oak savannahs, broken deciduous, and coniferous habitats. Nests are made at the forest edge (especially ponderosa pine) or in groves or scattered trees and requires snags for nest cavities. *M. lewis'* primary diet consists of insects, nuts, and fruits.	**No Potential.** The Study Area is outside the known distribution range for this species according to the CWHR Predicted Habitat Suitability Map.	**Not Present.** There are no recommendations for this species.
osprey *Pandion haliaetus*	CDF: S CDFW: WL IUCN: LC G5 S4	*P. haliaetus* are strictly associated with large, fish-bearing waters, primarily in ponderosa pine and mixed conifer stands. Foraging habitat consists of open, clear waters, rivers, lakes, reservoirs, estuaries, lagoons, swamps, marshes, and bays. Large trees, snags, and blown-out treetops are used for cover and nesting. Nests are located on or near the tops of trees, snags, cliffs, or human-made structures.	**High Potential.** Habitat within the Study Area is ranked High (0.66) in suitability according to the CWHR Predicted Habitat Suitability Map. There are no stands of dense, mature and old growth conifer or deciduous forest within the Study Area; however, the Study Area is located within conifer and deciduous forest stands.	**Not Observed.** This species or nests were not observed during the biological assessment. Please see section 6.2 for further recommendations.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
yellow warbler *Setophaga petechia*	CDFW: SSC USFWS: BCC G5T2T3 S2	*S. petechia* often inhabits riparian deciduous habitats in summer: willows, alders, cottonwoods, and other small trees and shrubs typical of low, open canopy riparian woodland. This species will also breed in montane shrubbery in open conifer forest. *S. petechia* migrates through woodland, forest and shrub habitats. Nests above ground in a deciduous dappling or shrub.	**Low Potential.** Habitat within the Study Area is ranked Low (0.22) in suitability according to the CWHR Predicted Habitat Suitability Map; however, the Study Area does contain montane shrubs in open to closed conifer and deciduous forest that may be potential habitat for this species.	**Not Observed.** This species was not observed during the biological assessment. Please see section 6.2 for further recommendations.
northern spotted owl *Strix occidentalis caurina*	FT ST CDF: S IUCN: NT NABCI: YWL G3G4T3 S2	*S. occidentalis caurina* are year-round residents in dense, structurally complex forests, primarily with old-growth conifers. Nests on snags and within tree cavities, and often is associated with existing structures (old raptor nests, squirrel nests and *A. pomo* nests).	**Moderate Potential.** The Study Area is approximately 3.7 miles southeast from the closest NSO Activity Center and 4.5 miles northeast from the nearest critical habitat as identified by the USFWS. The Study Area is located within suitable habitat according to the CWHR Predicted Habitat Suitability Map. The Study Area does not contain large conifers for nesting but may provide suitable foraging habitat for this species.	**Not Observed.** This species or evidence of this species was not observed during the biological assessment. Please see section 6.2 for further recommendations.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
Fish				
Clear Lake prickly sculpin *Cottus asper* ssp.	CDFW: SSC G5T1 SNR	The *C. asper ssp.* is adaptable to environments ranging from fresh to saltwater, and from small cool stream to large warm rivers and lakes. *C. asper ssp.* has a variety of forms as some are coastal, others live in the valley, and some are limited to Clear Lake proper. The coastal forms rarely live in a stream without an estuary and rarely go farther than 50 km upstream though they have been found present over 120 km upstream. In the Central Valley of California these fish inhabit low elevation waters. The limitation to the spread of these fish. In streams these fish use a variety of habitats though good cover or overhanging vegetation is a common thread. Most spawning occurs between February and June. In lakes, juveniles forage around the lake shores and then gradually move into deeper water as they grow.	**No Potential.** The Study Area is outside of the Clear Lake watershed and the current known distribution for this species according to the FSSC Range Map.	**Not Present.** There are no recommendations for this species.
Pacific lamprey *Entosphenus tridentatus*	AFS: VU BLM: S CDFW: SSC USFS: S G4 S4	*E. tridentatus* are anadromous, but also with a number of permanent freshwater resident populations. This species is parasitic as adults, feeding on blood and body fluids of its prey. To breed, *E. tridentatus* migrate into fresh water and dig nests. Adults die post-breeding. Larvae/juveniles live 5-6 years in freshwater before returning to the ocean.	**No Potential.** The Study Area does not contain fish bearing water bodies suitable for this species and does provide suitable habitat for this species.	**Not Present.** There are no recommendations for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
northern coastal roach *Hesperoleucus venustus navarroensis*	CDFW: SSC GNRTNR SNR	Roach are found in a wide variety of habitats in the Russian River, including the main river where there is cover (e.g., fallen trees) to protect them from predators. They are most abundant, in tributaries with clear well oxygenated, water, dominant substrates of cobble and boulder, and shallow depths (average 10-50 cm) with pools up to 1 m deep. In the Russian River mainstem, roach are most common around the mouths of tributaries	**No Potential.** The Study Area does not contain fish bearing water bodies suitable for this species and does provide suitable habitat for this species.	**Not Present.** There are no recommendations for this species.
Clear Lake tule perch *Hysterocarpus traskii lagunae*	CDFW: SSC G5T2T3 S2S3	*H. traskii lagunae* are endemic to three (3) highly altered lakes (Clear Laek, Lower Blue Lake, and Upper Blue Lake); however, it is expected that they are only commonly found in Upper Blue Lake as the other lakes have already lost a majority of their native fishes. Clear Lake and Lower Blue Lake are typically warm (summer temperatures 25-28°C) and shallow, with primarily sandy or soft bottom substrates. Upper Blue Lake is similar but is also clearer and colder. Tule perch are very tolerant of environmental variables; however, low water quality limits their distribution in their historic ranges. A key habitat requirement of *H. traskii lagunae* is cover, especially for pregnant females and small juveniles. This species is typically found in small shoals in deep (3+ m) tule beds, among rocks (especially along steep rocky shores), or among the branches of fallen trees.	**No Potential.** The Study Area is outside of the Clear Lake watershed and the current known distribution for this species according to the FSSC Range Map.	**Not Present.** There are no recommendations for this species.
Russian River tule perch *Hysterocarpus traskii pomo*	AFS: VU CDFW: SSC G5T4 S4	*H. traskii pomo* inhabits clear, flowing streams and rivers, and occupy deep pools that have complex cover in the form of aquatic and overhanging vegetation. This species is endemic to the Russian River and the lower parts of its tributaries. Mating occurs in July-Sept. In May-June the female bears 10-60 live fish.	**No Potential.** The Study Area does not contain fish bearing water bodies suitable for this species and does provide suitable habitat for this species.	**Not Present.** There are no recommendations for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
coho salmon – southern Oregon / northern California ESU *Oncorhynchus kisutch pop. 2*	FT ST AFS: TH G5T2Q S2	*O. kisutch* are anadromous, migrating and spawning in streams that flow directly into the ocean or tributaries of larger rivers. Migration peaks around mid-May till mid-June. Coho lay egg masses (redds), often located between a pool and a riffle. This ESU, includes naturally spawned coho salmon originating from coastal streams and rivers between Cape Blanco, Oregon, and Punta Gorda, California.	**No Potential.** The Study Area is outside the known distribution range for this species according to the CWHR Predicted Habitat Suitability Map and the FSSC Range Map.	**Not Present.** There are no recommendations for this species.
coho salmon – central California coast ESU *Oncorhynchus kisutch pop. 4*	FE SE AFS: EN G5T2T3Q S2	Coho are anadromous, migrating and spawning in streams that flow directly into the ocean or tributaries of larger rivers. Migration peaks mid-May till mid-June. The fish will spend two to three years at sea before migrating back to their natal stream to spawn. Coho lay egg masses (redds), often located between a pool and a riffle. This ESU, includes naturally spawned coho salmon originating from rivers south of Punta Gorda, Ca. to and including Aptos Creek, as well as such coho salmon originating from tributaries to San Francisco Bay.	**No Potential.** The Study Area does not contain fish bearing water bodies suitable for this species and does provide suitable habitat for this species. According to the CWHR Predicted Habitat Suitability Map, Gibson Creek (approximately 1,000 feet south) does have Intrinsic Potential to contain this species.	**Not Present.** There are no recommendations for this species.
steelhead – northern California DPS *Oncorhynchus mykiss irideus pop. 16*	FT AFS: TH G5T2T3Q S2S3	*O. mykiss irideus* are anadromous coastal rainbow trout. As adults, this species requires high flows, with depths of at least 18cm for passage. Clean well-aerated gravel beds, typically in steep, rocky reaches of upper tributaries are needed for spawning. This DPS includes naturally spawned anadromous *O. mykiss* originating below natural and manmade impassable barriers in California coastal river basins from Redwood Creek to and including the Gualala River.	**No Potential.** The Study Area is outside the known distribution range for this species according to the CWHR Predicted Habitat Suitability Map and the FSSC Range Map.	**Not Present.** There are no recommendations for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
steelhead - central California coast DPS *Oncorhynchus mykiss irideus pop. 8*	FT AFS: TH G5T2T3Q S2S3	*O. mykiss irideus* are anadromous coastal rainbow trout. As adults, this species requires high flows, with depths of at least 18cm for passage. Clean well-aerated gravel beds, typically in steep, rocky reaches of upper tributaries are needed for spawning. This DPS includes naturally spawned anadromous *O. mykiss* originating below natural and manmade impassable barriers from the Sacramento and San Joaquin Rivers and their tributaries; excludes such fish originating from San Francisco and San Pablo Bays and their tributaries.	**No Potential.** The Study Area does not contain fish bearing water bodies suitable for this species and does provide suitable habitat for this species. According to the CWHR Predicted Habitat Suitability Map, Gibson Creek (approximately 1,000 feet south) does have Intrinsic Potential to contain this species.	**Not Present.** There are no recommendations for this species.
chinook salmon – California coastal ESU *Oncorhynchus tshawytscha pop. 17*	FT AFS: TH G5T2Q S2	The California coastal ESU includes all naturally spawned populations of Chinook salmon from the Klamath River (exclusive) to the Russian River (inclusive). Adult numbers depend on pool depth and volume, amount of cover, and proximity to gravel. Water temperatures greater than 27°C are lethal.	**No Potential.** The Study Area is outside the known distribution range for this species according to the CWHR Predicted Habitat Suitability Map and the FSSC Range Map.	**Not Present.** There are no recommendations for this species.
Insects				
obscure bumble bee *Bombus caliginosus*	IUCN: VU G4? S1S2	*Bombus caliginosus* inhabits open grassy coastal prairies and Coast Range meadows. Nesting occurs underground as well as above ground in abandoned bird nests. Males patrol circuits in search of mates. This species is classified as a medium long-tongued species, whose food plants include *Ceanothus, Cirsium, Clarkia, Keckiella, Lathyrus, Lotus, Lupinus, Rhododendron, Rubus, Trfolium*, and *Vaccinium*.	**Low Potential.** The Study Area does not contain open meadows or coastal prairie and does not provide suitable habitat for this species.	**Not Observed.** This species was not observed during the biological assessment. Please see section 6.2 for further recommendations.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
western bumble bee *Bombus occidentalis*	SCE USFS: S Xerces: IM G2G3 S1	The habitat for this species is described as open grassy areas, urban parks and gardens, chaparral and shrub areas, and mountain meadows. typically nests underground in abandoned rodent burrows or other cavities Food plants of *Bombus occidentalis* include *Ceanothus, Centaurea, Chrysothamnus, Cirsium, Geranium, Grindellia, Lupinus, Melilotus, Monardella, Rubus, Solidago*, and *Trifolium.*	**Moderate Potential.** The Study Area does not contain open meadows or grassland; however, grassland is present underneath the conifer and deciduous forest canopy.	**Not Observed.** This species was not observed during the biological assessment. Please see section 6.2 for further recommendations.
monarch – California overwintering pop. *Danaus plexippus* pop. 1	USFS: S G4T2T3 S2S3	*D. plexippus* are a migratory species, making massive migrations from August-October to hibernate along the California coast and central Mexico. *D. plexippus* feed on flower nectar from all milkweeds, dogbane, lilac, red clover, lantana, thistles, goldenrods, blazing stars, ironweed and tickseed sunflower. This species can be found in many habitats including fields, meadows, weedy areas, marshes and roadsides.	**Low Potential.** The Study Area does not contain open meadows or grasslands and does not provide suitable habitat for this species.	**Not Observed.** This species was not observed during the biological assessment. Please see section 6.2 for further recommendations.
Mollusks				
western ridged mussel *Gonidea angulata*	G3 S1S2	*G. angulata* inhabits cold creeks and streams from low-to-mid elevations that are seasonally and not continuously turbid. *G. angulata* requires a host species to reproduce and disperse and can be found in diverse substrates from firm mud to coarse particles. Documented fish hosts for this species include hardhead (*Mylopharodon conocephalus*), pit sculpin (*Cottus pitensis*), and Tule perch (*Hysterocarpus traski*).	**No Potential.** The Study Area does not contain fish bearing water bodies suitable for this species and does provide suitable habitat for this species. Gibson Creek (approximately 1,000 feet south) may provide suitable habitat to contain this species.	**Not Present.** There are no recommendations for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
Mammals				
pallid bat *Antrozous pallidus*	BLM: S CDFW: SSC IUCN: LC USFS: S WBWG: H G4 S4	*A. pallidus* are found in deserts, grasslands, shrublands, woodlands, and forests. Most common in open, forages along river channels. Roosting sites include crevices in rocky outcrops and cliffs, caves, mines, basal hollows in large conifers and various human structures such as bridges, barns, and buildings (including occupied buildings). Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	**Low Potential.** Habitat within the Study Area ranks Low (0.11) in suitability according to the CWHR Predicted Habitat Suitability Map. Suitable foraging habitat is not present throughout the Study Area; and roosting habitat is limited.	**Not Observed.** This species was not observed during the biological assessment. Please see section 6.2 for further recommendations.
Sonoma tree vole *Arborimus pomo*	CDFW: SSC IUCN: NT G3 S3	*A. pomo* lives in humid coastal forests consisting of Douglas-fir, grand fir, western hemlock, and/or Sitka spruce. This species requires Douglas-fir and grand fir needles as a food source and nesting materials. Nests are frequently found in trees along the bole, in branch crotches, or in the top of snags. Nests are most often found along roads, skid trails, or forest edges; however, they could exist further in the forest with dense canopies making nest identification difficult. This species is distributed along the North Coast from Sonoma County north to the Oregon border, being practically restricted to the fog belt.	**Moderate Potential.** Habitat within the Study Area is not suitable in some areas, ranking Low (0.33) to Medium (0.66) within the conifer forest habitat according to the CWHR Predicted Habitat Suitability Map. The Study Area does contain Douglas-fir trees and may provide suitable habitat for this species.	**Not Observed.** This species was not observed during the biological assessment. Please see section 6.2 for further recommendations.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
Townsend's big-eared bat *Corynorhinus townsendii*	BLM: S CDFW: SSC IUCN: LC USFS: S WBWG: H G4 S2	*C. townsendii* is associated with a wide variety of habitats from deserts to mid-elevation mixed coniferous-deciduous forest, basal hollows in large conifers. Females form maternity colonies in buildings, caves and mines and males roost singly or in small groups. Foraging occurs in open forest habitats where they glean moths from vegetation.	**Low Potential.** Habitat within the Study Area ranks Low (0.11) in suitability according to the CWHR Predicted Habitat Suitability Map. Suitable foraging habitat is not present throughout the Study Area; and roosting habitat is limited.	**Not Observed.** This species was not observed during the biological assessment. Please see section 6.2 for further recommendations.
North American porcupine *Erethizon dorsatum*	IUCN: LC G5 S3	*E. dorsatum* are commonly found in coniferous and mixed forested areas, and can also inhabit shrublands, tundra and deserts, albeit less frequently as this species tends to spend much of its time in trees. This herbivore eats leaves, twigs, and green plants like Skunk cabbage (*Symplocarpus foetidus*) and clovers (*Trifolium spp.*). This species makes its dens in hollow trees, decaying logs and caves in rocky areas. Recognized as primarily solitary and nocturnal, *E. dorsatum* may be seen foraging during daytime.	**Moderate Potential.** Habitat within the Study Area is ranked Low (0.33) to Medium (0.55) to High (0.77) within the conifer forest habitat according to the CWHR Predicted Habitat Suitability Map. The Study Area may contain suitable habitat for this species.	**Not Observed.** This species was not observed during the biological assessment. Please see section 6.2 for further recommendations.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
western mastiff bat *Eumops perotis californicus*	BLM: S CDFW: SSC WBWG: H G4G5T4 S3S4	*E. perotis californicus* occurs in a wide variety of habitats, including chaparral, coastal and desert scrub, coniferous and deciduous forest and woodland. Roosting sites occur in rocky outcrops, crevices and cliffs with 50-100% rocky slopes. Day roosts are established in crevices in rocky canyons and cliffs, trees, tunnels and buildings with a minimum 2-meter (6.5 foot) drop-off to provide a takeoff or launching area. The animals are strong, fast fliers, with a likely extensive foraging range, up to 15 miles from the nearest possible roosting site. Foraging occurs in broad, open areas, woodlands and forest, scrub, chaparral, grassland, riparian and agricultural areas and there is no evidence of this species being habitat specialists.	**No Potential.** The Study Area is outside the known distribution range for this species according to the CWHR Predicted Habitat Suitability Map.	**Not Present.** There are no recommendations for this species.
western red bat *Lasiurus blossevillii*	CDFW: SSC IUCN: LC WBWG: H G4 S3	*L. blossevillii* roosts primarily in trees, often 2-40ft above the ground from sea level through mixed conifer forests. Typical habitats include cismontane woodland, lower montane coniferous forest, riparian forests and woodlands. This species prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging.	**Moderate Potential.** Habitat within the Study Area is ranked Medium (0.55) within the conifer forest habitat according to the CWHR Predicted Habitat Suitability Map. The Study Area may contain suitable habitat for this species.	**Not Observed.** This species was not observed during the biological assessment. Please see section 6.2 for further recommendations.
hoary bat *Lasiurus cinereus*	IUCN: LC WBWG: M G3G4 S3	*L. cinereus* are yearlong residents of Mendocino County. This bat is one of the few bats knows to both migrate south for winter and to hibernate locally. Hoary bat daytime roosts are typically dense foliage of medium to large sized trees. This bat occupies a variety of habitats including dense forest, forest edges, coniferous forests, deserts, and broadleaf forests.	**Moderate Potential.** Habitat within the Study Area is ranked Moderate (0.55) within the conifer forest habitat according to the CWHR Predicted Habitat Suitability Map. The Study Area may contain suitable habitat for this species.	**Not Observed.** This species was not observed during the biological assessment. Please see section 6.2 for further recommendations.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
little brown bat *Myotis lucifugus* (San Bernardino Mountains population)	IUCN: EN WBWG: M G3 S2S3	*M. lucifugus* is found in most of the United States and Canada, except for the south central and southeastern United States and northern Alaska and Canada. *M. lucifugus* typically lives and feeds in forested areas near or over water. The little brown bat lives in three different roosting sites throughout the year: day roosts, night roosts, and hibernation roosts. Stable, ambient temperatures greatly influence site selection. Human-made structures are often selected, however both day and night roosts may be found in trees, under rocks, and in piles of wood. Day roosts provide excellent shelter, limited to no light, and typically have southwestern exposure. Night roosts are larger areas these bats can use when outside temperatures necessitate communal congregation for warmth. Hibernaculum habitats tend to include mines and caves and are typically warmer and more humid.	**Low Potential.** Habitat within the Study Area is ranked Low (0.33) within the conifer forest habitat according to the CWHR Predicted Habitat Suitability Map. Suitable foraging habitat is not present throughout the Study Area; and roosting habitat is limited.	**Not Observed.** This species was not observed during the biological assessment. Please see section 6.2 for further recommendations.
Yuma myotis *Myotis yumanensis*	BLM: S IUCN: LC WBWG: LM G5 S4	*M. yumanensis* commonly inhabits open forests and woodlands from British Columbia across the western U.S. and south into Baja and southern Mexico. This species will use a variety of lowland habitats from scrub to coniferous forest, always near slow-moving or standing water habitats. Foraging occurs almost exclusively over water, with distribution being closely tied to bodies of water. Typical roosting habitat are caves, mines, buildings, under bridges and in cliff and tree crevices. Maternity colonies are often in caves, mines, buildings and crevices.	**Low Potential.** Habitat within the Study Area is ranked Low (0.22) within the conifer forest habitat according to the CWHR Predicted Habitat Suitability Map. Suitable foraging habitat is not present throughout the Study Area; and roosting habitat is limited.	**Not Observed.** This species was not observed during the biological assessment. Please see section 6.2 for further recommendations.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
fisher [West Coast DPS] *Pekania pennanti*	CDFW: SSC USFS: S BLM: S G5 S2S3	*P. pennanti* are primarily solitary, except during breeding season (February – April and they inhabit forest stands with late-successional characteristics including intermediate-to-large tree stages of coniferous forest and deciduous-riparian areas with high percent canopy closure. Den site and prey availability are often associated with these characteristics. *P. pennanti* use cavities, snags, logs and rocky areas for cover and denning and require large areas of mature, dense forest.	**Moderate Potential.** Habitat within the Study Area is ranked Low (0.33) to Medium (0.66) to High (0.88) within the conifer forest habitat according to the CWHR Predicted Habitat Suitability Map. The Study Area may contain suitable habitat for this species; however, large old growth trees are not present.	**Not Observed.** This species was not observed during the biological assessment. Please see section 6.2 for further recommendations.
American badger *Taxidea taxus*	CDFW: SSC IUCN: LC G5 S3	*T. taxus* are most abundant in drier open stages of most shrub, forest and herbaceous habitats, with friable soils. *T. taxus* dig burrows in the friable soils and frequently reuse old burrows. *T. taxus* are non-migratory and are found throughout most of California, except the northern North Coast area.	**No Potential.** The Study Area does not have suitable habitat present according to the CWHR Predicted Habitat Suitability Map. Small patches of suitable habitat are present within the surrounding area.	**Not Present.** There are no recommendations for this species.
Reptiles				
western pond turtle *Emys marmorata*	BLM: S CDFW: SSC IUCN: VU USFS: S G3G4 S3	*E. marmorata* are associated with permanent ponds, lakes, streams, stock ponds, marshes, seasonal wetlands, artificial areas including reservoirs or irrigation ditches, or permanent pools along intermittent streams in a wide variety of habitats. This species requires basking sites in the aquatic environment or upland, grassy openings with loose soil for nesting and overwintering. Nest sites can be found within 100 meters of aquatic habitat.	**Low Potential.** Habitat within the Study Area is ranked Low (0.33) according to the CWHR Predicted Habitat Suitability Map. There are no watercourses or ponds located within the Study Area. The Study Area does not provide suitable habitat for this species.	**Not Observed.** This species was not observed during the biological assessment. Please see section 6.2 for further recommendations.

TERRESTRIAL OR AQUATIC COMMUNITY	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA AND RECOMMENDATIONS
Northern Interior Cypress Forest – Terrestrial (Holland 1986)	Description: An open, fire-maintained scrubby "forest" similar to Knobcone Pine Forest but dominated by one of several Cupressus species. These stands may be as much as 15m tall, but usually are lower. Site Factors: On dry, rocky, sterile, often ultramafic soils, frequently associated with Serpentine Chaparral. Intergrades on less sever sites with Upper Sonoran Mixed Chaparral, Montane Chaparral, or Knobcone Pine Forest; and on more mesic site with Mixed Evergreen Forest or Montane Coniferous Forest. Characteristic Species: *Cupressus abramsiana* (Santa Cruz Mountains, on sandstone), *C. bakeri* (Cascade and northern Sierra Nevada, on serpentine or aerated basic sites), *C. macnabiana* (North Coast Ranges and northern Sierra Nevada, on serpentine), *C. sargentii* (North and South Coast ranges, on serpentine), *Pinus attenuata*, *Quercus durata* Distribution: Scattered through the Siskiyou Mountains, North and South Coast Ranges, Cascades and northern Sierra Nevada. Combining the four species into a single element is open to question but does reflect a common pattern of occurring on serpentine or other sterile substrate and moisture status intermediate between mesic Coastal Closed Cone Conifer Forests and xeric Southern Interior Cypress Forests.	**No Potential.** The Study Area is located predominantly within cismontane woodland and valley and foothill grassland and does contain Knobcone pine; however, serpentine soil or chaparral habitat is not present. It is unlikely for this terrestrial community to be present within the Study Area. **Not Present.** This community was not observed during the biological assessment. There are no further recommendations for this community.
Serpentine Bunchgrass (Holland 1986)	Description: An open grassland dominated by perennial bunchgrasses. Total cover typically is low but is markedly dominated by native species (usually much more so than in Valley Needlegrass Grassland or Non-native Grasslands. Site Factors: Restricted to serpentine sites. Characteristic Species: *Bromus hordeaceus, Calamagrostis ophiditis, Eschscholtzia californica, Pestuca grayii, Hemizonia luzulaefolia, Lotus subpinnatus, Melica californica, Poa scabrella, Stipa cernua, S. lepida, S. pulchra, Vulpia microstachys* Distribution: Scattered widely through the Coast Ranges, less common in the Sierra Nevada and southern California mountains.	**No Potential.** The Study Area is located within cismontane woodland, broadleaved upland forest and valley and foothill grassland; however, serpentine soil is not present. It is unlikely for this terrestrial community to be present within the Study Area. **Not Present.** This community was not observed during the biological assessment. There are no further recommendations for this community.

Abbreviation	Organization
FC	Federal Candidate
FE	Federal Endangered
FT	Federal Threatened
FPE	Federally Proposed for listing as Endangered
FPT	Federally Proposed for listing as Threatened
FPD	Federally Proposed for delisting
FD	Federally Delisted
SE	State Endangered
ST	State Threatened
SR	State Rare
SCE	State Candidate for listing as Endangered
SCT	State Candidate for listing as Threatened
SCD	State Candidate for delisting
SD	State Delisted
AFS_EN	American Fisheries Society - Endangered
AFS_TH	American Fisheries Society - Threatened
AFS_VU	American Fisheries Society – Vulnerable
BLM_S	Bureau of Land Management – Sensitive
BCC	USFWS Birds of Conservation Concern
CDF_S	Calif. Dept. of Forestry & Fire Protection – Sensitive
CDFW_SSC	Calif. Dept. of Fish & Wildlife – Species of Special Concern
CDFW_FP	Calif. Dept. of Fish & Wildlife – Fully Protected
CDFW_WL	Calif. Dept. of Fish & Wildlife – Watch List
IUCN_CD	IUCN – Conservation Dependent
IUCN_CR	IUCN – Critically Endangered
IUCN_DD	IUCN – Data Deficient
IUCN_EN	IUCN – Endangered
IUCN_EW	IUCN – Extinct in the Wild
IUCN_EX	IUCN – Extinct
IUCN_LC	IUCN – Least Concern
IUCN_NE	IUCN – Not Evaluated
IUCN_NT	IUCN – Near Threatened
IUCN_VU	IUCN – Vulnerable
NABCI_RWL	North American Bird Conservation Initiative – Red Watch List
NABCI_YWL	North American Bird Conservation Initiative – Yellow Watch List
NMFS_SC	National Marine Fisheries Service – Species of Concern
USFS_S	U. S. Forest Service – Sensitive
USFWS_BCC	U. S. Fish & Wildlife Service – Birds of Conservation Concern
WBWG_H	Western Bat Working Group – High Priority

Abbreviation	Organization
WBWG_MH	Western Bat Working Group – Medium-High Priority
WBWG_M	Western Bat Working Group – Medium Priority
WBWG_LM	Western Bat Working Group – Low-Medium Priority
Xerces: CI	Xerces Society – Critically Imperiled
Xerces: IM	Xerces Society – Imperiled
Xerces: VU	Xerces Society – Vulnerable
Xerces: DD	Xerces Society – Data Deficient

Global Rank

The Global Rank (G-rank) is an indication of the overall condition and imperilment of an element throughout its global range. It is a letter+number score that reflects a combination of Rarity, Threat and Trend factors, with weighting being heavier on the rarity factors. The Global Ranks are assigned by NatureServe in coordination with the state program(s) where the element occurs.

GLOBAL RANK	DEFINITION
GX	Presumed Extinct — Not located despite intensive searches and virtually no likelihood of rediscovery.
GH	Possibly Extinct — Known from only historical occurrences but still some hope of rediscovery. There is evidence that the species may be extinct or the ecosystem may be eliminated throughout its range, but not enough to state this with certainty.
G1	Critically Imperiled — At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, very restricted range, very severe threats, or other factors.
G2	Imperiled — At high risk of extinction due to restricted range, very few populations or occurrences (often 20 or fewer), steep declines, severe threats, or other factors.
G3	Vulnerable — At moderate risk of extinction or elimination due to a fairly restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, threats, or other factors.
G4	Apparently Secure — At fairly low risk of extinction due to an extensive range and/or many populations or occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors.
G5	Secure — At very low risk of extinction due to a very extensive range, abundant populations or occurrences, and little to no concern from declines or threats.
GNR	Unranked — Global rank not yet assessed.
GU	Unrankable — Currently unrankable due to a lack of information or due to substantially conflicting information about status or trends.
G#G#	Range Rank — A numeric range rank (e.g., G2G3) is used to indicate the range of uncertainty about the exact status of a taxon or community.
G#T#	Infraspecific Taxon — The status of infraspecific taxa (subspecies or varieties) are indicated by a "T-rank" following the species' Global Rank.
?	Qualifier: Inexact Numeric Rank — A question mark represents a rank qualifier, denoting an inexact or uncertain numeric rank.

Q	Qualifier: Questionable Taxonomy — The distinctiveness of this entity as a taxon or community at the current level is questionable; resolution of this uncertainty may result in change from a species to a subspecies or hybrid, or inclusion of this taxon or type in another taxon or type, with the resulting taxon having a lower-priority (numerically higher) conservation status rank.
C	Qualifier: Captive or Cultivated Only — The taxon or community at present is presumed or possibly extinct or eliminated in the wild across its entire native range but is extant in cultivation, in captivity, as a naturalized population (or populations) outside its native range, or as a reintroduced population or ecosystem restoration, not yet established.

State Rank

The State Rank (S-rank) is an indication of the condition and imperilment of an element throughout its range within the state. As with the G-rank, it is a letter+number score that reflects a combination of Rarity, Threat and Trend factors, weighted more heavily on rarity. The State Ranks are assigned by the CNDDB biologists using standard natural heritage methodology.

STATE RANK	DESCRIPTION
SX	Presumed Extirpated — Species is believed to be extirpated from the state. Not located despite intensive searches of historical sites and other appropriate habitat, and virtually no likelihood that it will be rediscovered.
SH	Possibly Extirpated (Historical) — Species occurred historically in the state, and there is some possibility that it may be rediscovered. All sites are historical; the element has not been seen for at least 20 years, but suitable habitat still exists.
S1	Critically Imperiled — Critically imperiled in the state because of extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the state.
S2	Imperiled — Imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or state.
S3	Vulnerable — Vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation.
S4	Apparently Secure — At a fairly low risk of extirpation in the state due to an extensive range and/or many populations or occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors.
S5	Secure — At very low or no risk of extirpation in the state due to a very extensive range, abundant populations or occurrences, and little to no concern from declines or threats.
SNR	Unranked — State conservation status not yet assessed.
SU	Unrankable — Currently unrankable due to a lack of information or due to substantially conflicting information about status or trends.
S#S#	Range Rank — A numeric range rank (e.g., S2S3) is used to indicate any range of uncertainty about the status of the species or community.
?	Qualifier: Inexact or Uncertain — A question mark represents a rank qualifier, denoting an inexact or uncertain numeric rank.

Potential to Occur:

No Potential. Habitat on and within 100 feet adjacent to the site is clearly unsuitable for the species requirements (cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).
Low Potential. Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and within 100 feet adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site.
Moderate Potential. Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or within 100 feet adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.
High Potential. All of the habitat components meeting the species requirements are present and/or most of the habitat on or within 100 feet adjacent to the site is highly suitable. The species has a high probability of being found on the site.

Results and Recommendations:
Present. Species was observed on the site or has been recorded (i.e. CNDDB, other reports) on the site recently.
Not Present. Species is assumed to not be present due to a lack of key habitat components.
Not Observed. Species was not observed during surveys.

Appendix B: List of Species Observed

SCIENTIFIC NAME	COMMON NAME
Wildlife	
Amphibians	
N/A	-
Avifauna	
Corvus corax	common raven
Junco hyemalis	dark-eyed junco
Melanerpes formicivorous	acorn woodpecker
SCIENTIFIC NAME	**COMMON NAME**
Fish	
N/A	-
Insects	
N/A	-
Mammals	
Odocoileus hemionus	mule deer
Mollusks	
N/A	-
Reptiles	
N/A	-

Appendix C: Photographs

Photo 1: Example habitat present within the Study Area.

Date: November 18, 2021

Photo 2: Example habitat present within the Study Area.

Date: November 18, 2021

Photo 3: Example habitat present within the Study Area.

Date: November 18, 2021

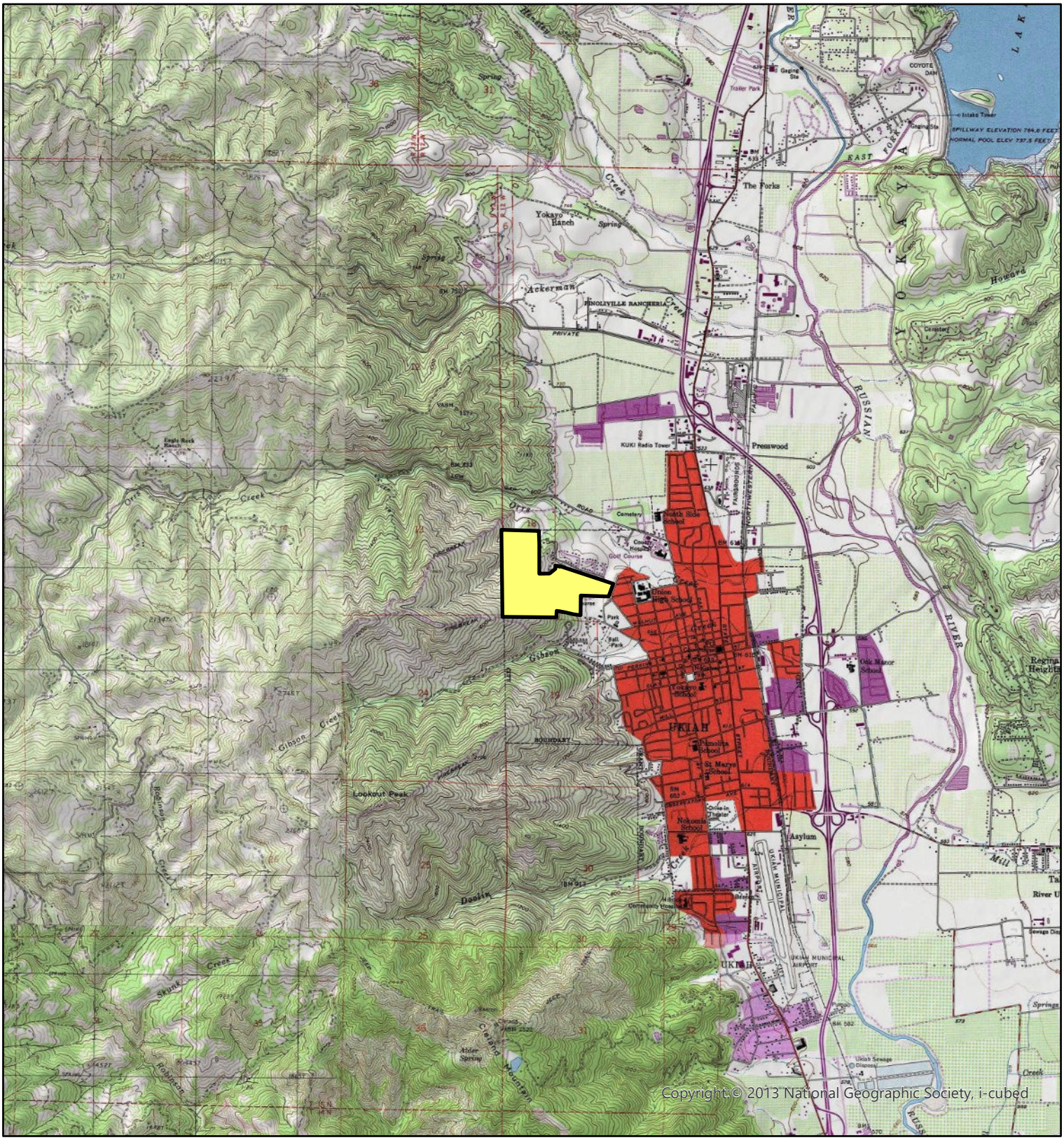
Photo 4: Example habitat present within the Study Area.

Date: November 18, 2021

Photo 5: Example habitat present within the Study Area.

Date: November 18, 2021

Appendix D: Maps



Upper City View Trail Biological Resource Assessment: Vicinity

0 0.5 1 2 Miles

Property Boundary

Applicant: City of Ukiah
Site Address: 842 Valley View Dr,
Ukiah, CA 95482
APN(s): 001-020-12, 001-030-01
Parcel Area Acreage: 85.97
Sections 18 and 19, T15N, R12W, MDBM
Ukiah USGS 7.5 Minute Quadrangle

Drawn by Evan Carlson

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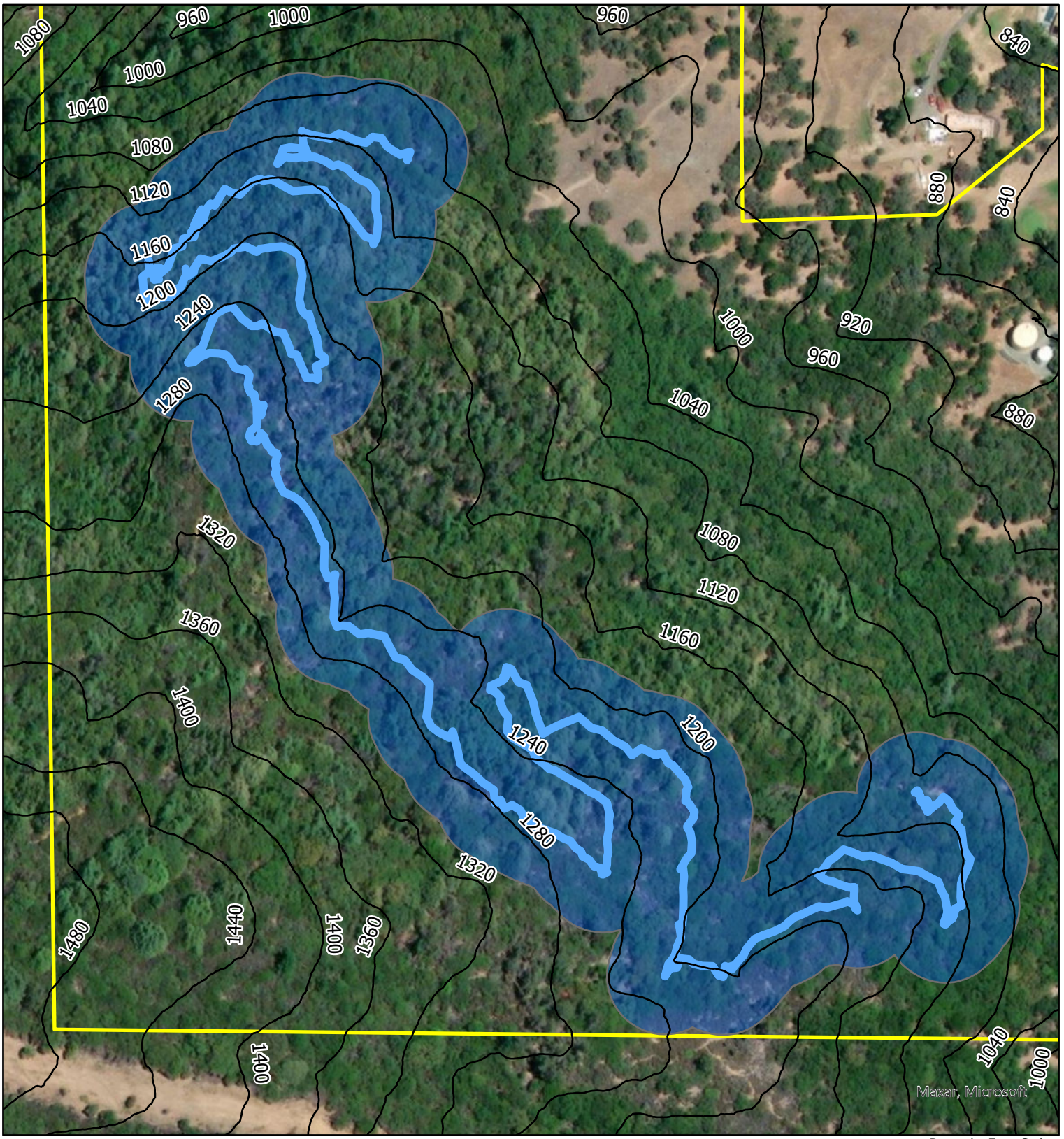

Drawn by Evan Carlson

Upper City View Trail Biological Resource Assessment: Study Area

Applicant: City of Ukiah
Site Address: 842 Valley View Dr, Ukiah, CA 95482
APN(s): 001-020-12, 001-030-01
Parcel Area Acreage: 85.97
Sections 18 and 19, T15N, R12W, MDBM
Ukiah USGS 7.5 Minute Quadrangle

0 125 250 500 Feet

Contour
Property Boundary
Trail
100ft Buffer

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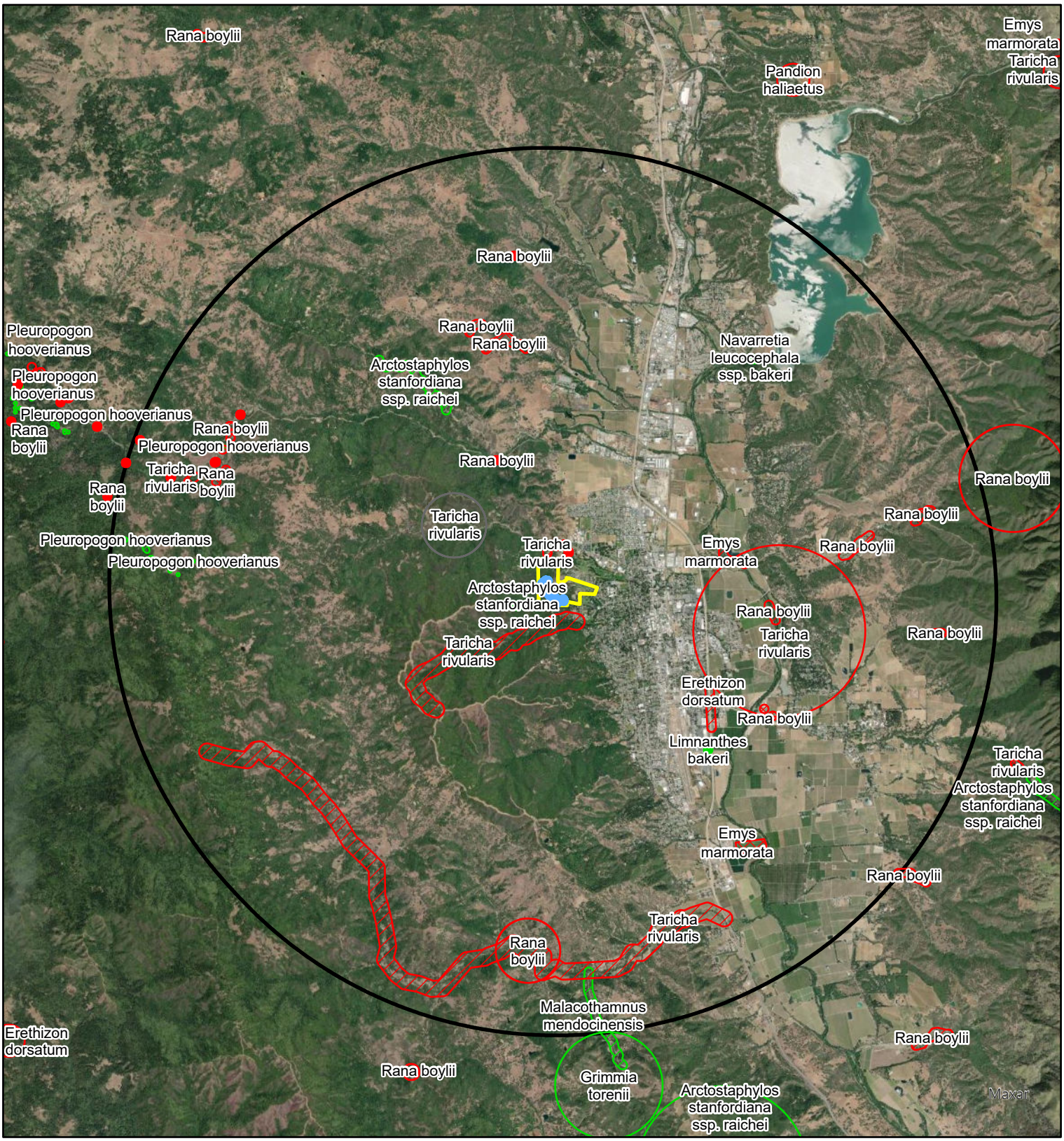

Upper City View Trail Biological Resource Assessment: CNDDB Vicinity

0 0.75 1.5 3 Miles

Applicant: City of Ukiah
Site Address: 842 Valley View Dr, Ukiah, CA 95482
APN(s): 001-020-12, 001-030-01
Parcel Area Acreage: 85.97
Sections 18 and 19, T15N, R12W, MDBM
Ukiah USGS 7.5 Minute Quadrangle

Drawn by Evan Carlson

- Property Boundary
- Trail
- 5-mile Buffer

CNDDB

- Plant (80m)
- Plant (specific)
- Plant (non-specific)
- Plant (circular)
- Animal (80m)
- Animal (specific)
- Animal (non-specific)
- Animal (circular)
- Terrestrial Comm. (80m)
- Terrestrial Comm. (specific)
- Terrestrial Comm. (non-specific)
- Terrestrial Comm. (circular)
- Aquatic Comm. (80m)
- Aquatic Comm. (specific)
- Aquatic Comm. (non-specific)
- Aquatic Comm. (circular)
- Multiple (80m)
- Multiple (specific)
- Multiple (non-specific)
- Multiple (circular)
- Sensitive EO's (Commercial only)

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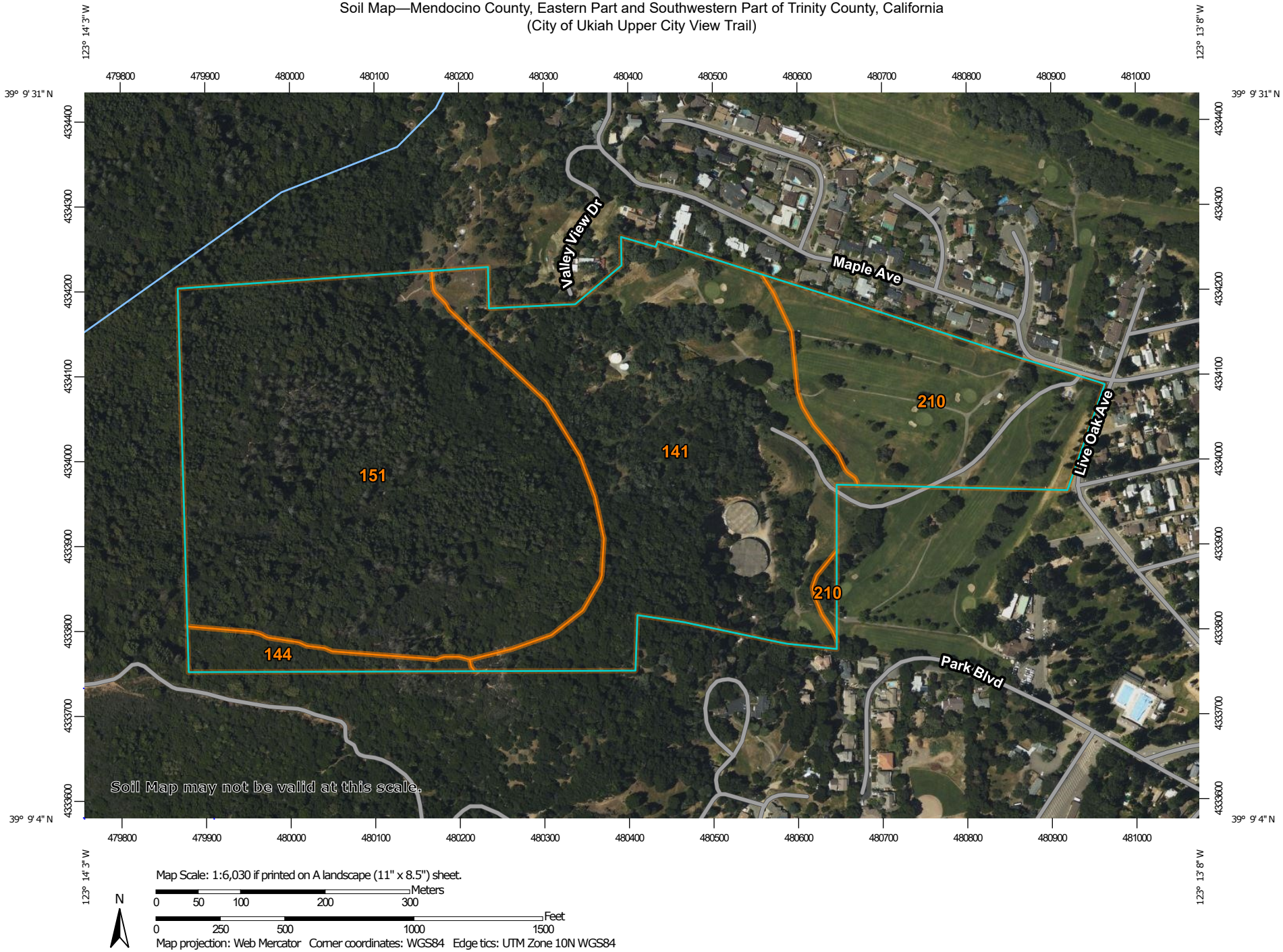
Soil Map—Mendocino County, Eastern Part and Southwestern Part of Trinity County, California
(City of Ukiah Upper City View Trail)



Map Scale: 1:6,030 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 50 100 200 300

Feet
0 250 500 1000 1500

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Mendocino County, Eastern Part and Southwestern Part of Trinity County, California
Survey Area Data: Version 16, Sep 6, 2021

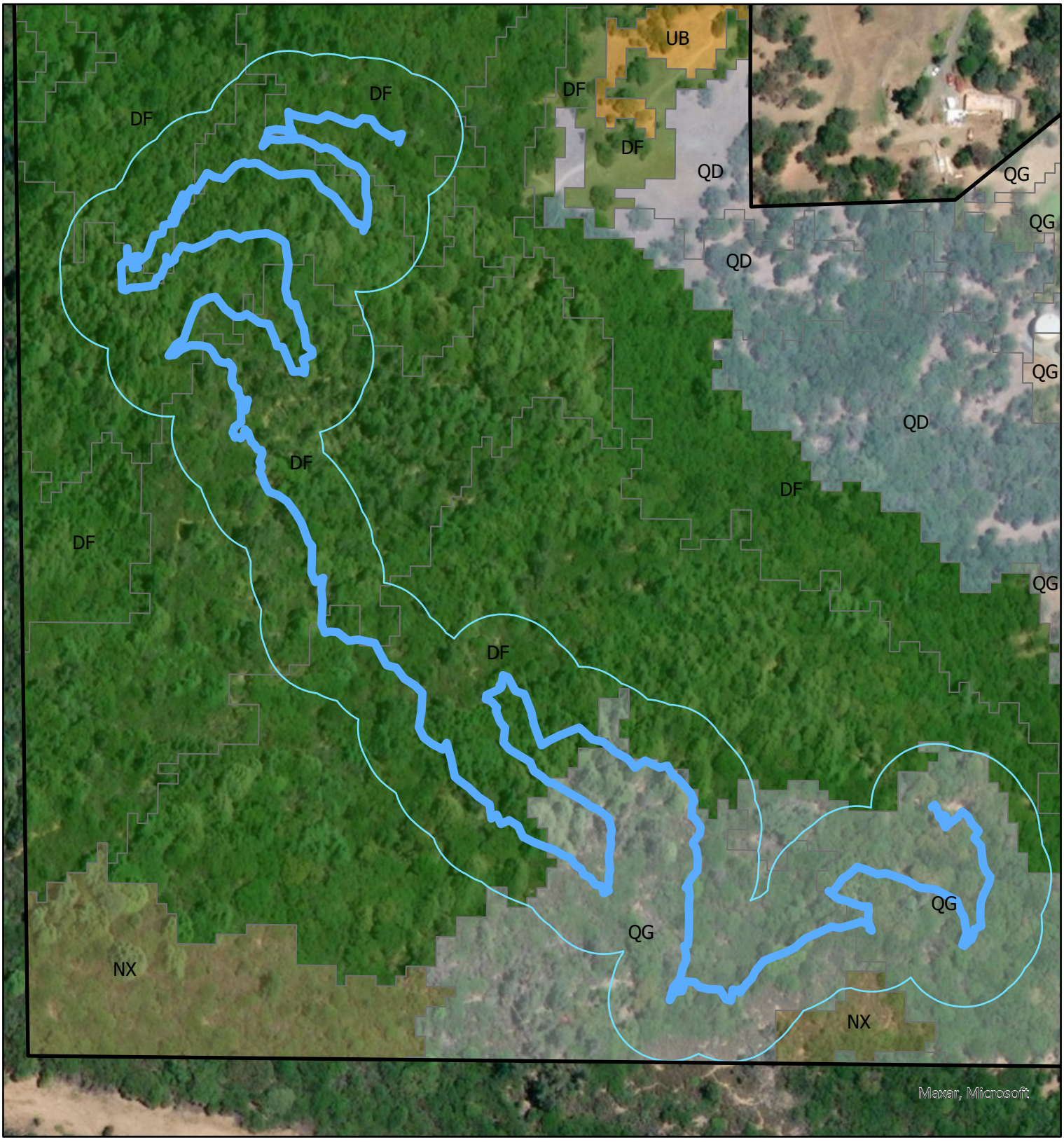
Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 5, 2019—Jun 3, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
141	Hopland loam, 30 to 50 percent slopes, high ffd	34.6	34.9%
144	Hopland-Maymen-Etsel complex, 50 to 75 percent slopes	2.5	2.6%
151	Hopland-Wohly loams, 50 to 75 percent slopes	46.6	47.0%
210	Urban land	15.4	15.5%
Totals for Area of Interest		**99.1**	**100.0%**



Upper City View Trail Biological Resource Assessment: CalVeg Classification

Applicant: City of Ukiah
Site Address: 842 Valley View Dr, Ukiah, CA 95482
APN(s): 001-020-12, 001-030-01
Parcel Area Acreage: 85.97
Sections 18 and 19, T15N, R12W, MDBM
Ukiah USGS 7.5 Minute Quadrangle

Drawn by Evan Carlson

0 100 200 400 Feet

- Property Boundary
- Trail
- 100ft Buffer

CalVeg Type:

- Pacific Douglas-fir
- Interior Mixed Woodland
- Oregon White Oak
- Annual Forbs and Grasses
- Non-Native/Ornamental Grasses
- Blue Oak
- Urban/Developed (General)

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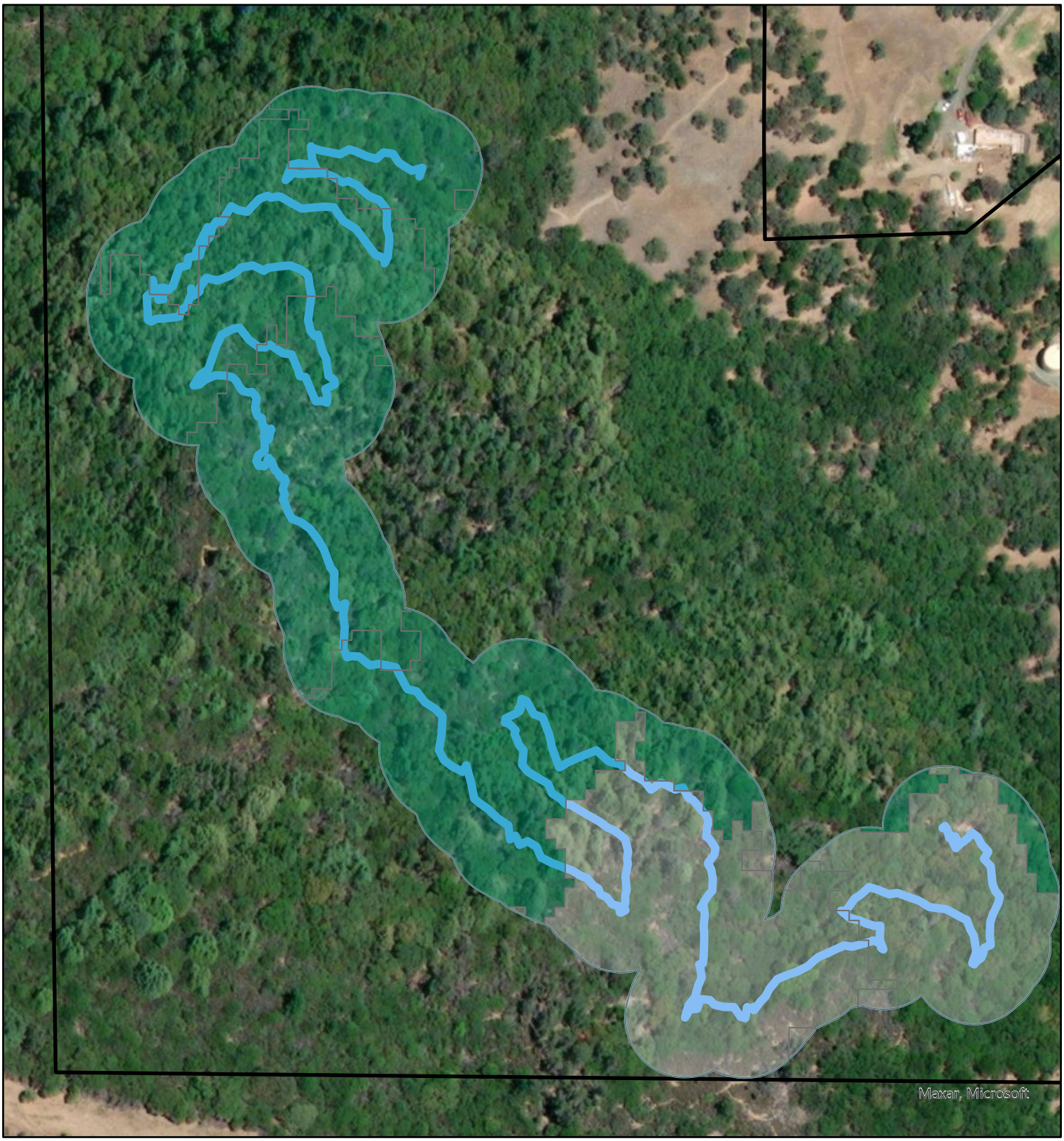

Upper City View Trail Biological Resource Assessment: MCV2 Community

0 100 200 400 Feet

Applicant: City of Ukiah
Site Address: 842 Valley View Dr,
Ukiah, CA 95482
APN(s): 001-020-12, 001-030-01
Parcel Area Acreage: 85.97
Sections 18 and 19, T15N, R12W, MDBM
Ukiah USGS 7.5 Minute Quadrangle

Drawn by Evan Carlson

MCV2 Community
- Douglas-fir forest and woodland
- Oregon white oak forest and woodland

- Trail
- 100ft Buffer
- Property Boundary

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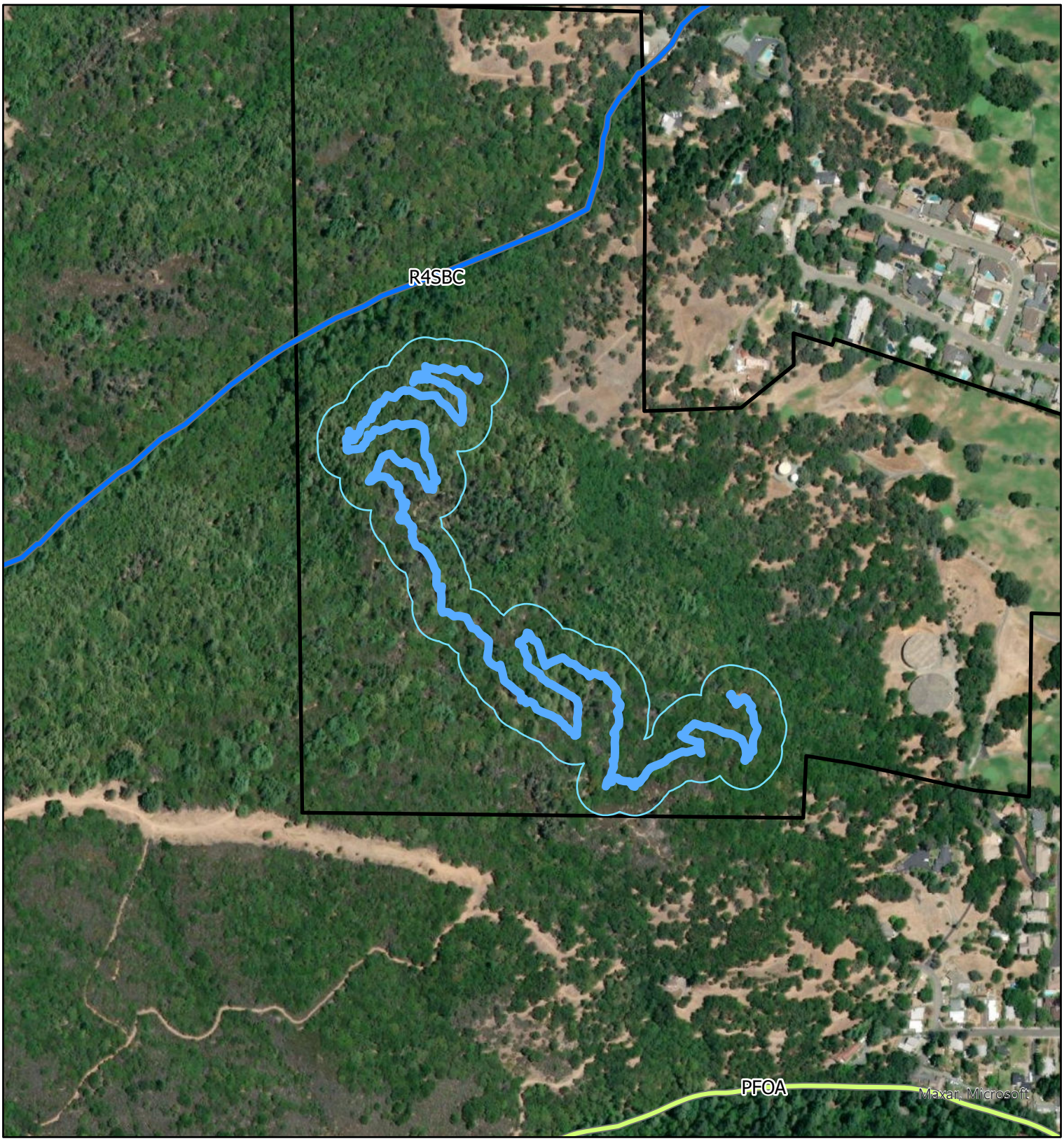

Upper City View Trail Biological Resource Assessment: National Wetland Inventory

0 205 410 820 Feet

Applicant: City of Ukiah
Site Address: 842 Valley View Dr, Ukiah, CA 95482
APN(s): 001-020-12, 001-030-01
Parcel Area Acreage: 85.97
Sections 18 and 19, T15N, R12W, MDBM
Ukiah USGS 7.5 Minute Quadrangle

Drawn by Evan Carlson

Wetland Type
- Freshwater Forested/Shrub Wetland
- Riverine

- Trail
- 100ft Buffer
- Property Boundary

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Appendix E: Supporting Documents

CNDDB 9-Quad Species List 184 records.

Element Type	Scientific Name	Common Name	Element Code	Federal Status	State Status	CDFW Status	CA Rare Plant Rank	Quad Code	Quad Name	Data Status	Taxonomic Sort
Animals - Amphibians	Dicamptodon ensatus	California giant salamander	AAAAH01020	None	None	SSC	-	3912333	LAUGHLIN RANGE	Unprocessed	Animals - Amphibians - Dicamptodontidae - Dicamptodon ensatus
Animals - Amphibians	Rana aurora	northern red-legged frog	AAABH01021	None	None	SSC	-	3912333	LAUGHLIN RANGE	Unprocessed	Animals - Amphibians - Ranidae - Rana aurora
Animals - Amphibians	Rana boylii	foothill yellow-legged frog	AAABH01050	None	Endangered	SSC	-	3912333	LAUGHLIN RANGE	Mapped and Unprocessed	Animals - Amphibians - Ranidae - Rana boylii
Animals - Amphibians	Rana boylii	foothill yellow-legged frog	AAABH01050	None	Endangered	SSC	-	3912332	REDWOOD VALLEY	Mapped and Unprocessed	Animals - Amphibians - Ranidae - Rana boylii
Animals - Amphibians	Rana boylii	foothill yellow-legged frog	AAABH01050	None	Endangered	SSC	-	3912331	POTTER VALLEY	Mapped and Unprocessed	Animals - Amphibians - Ranidae - Rana boylii
Animals - Amphibians	Rana boylii	foothill yellow-legged frog	AAABH01050	None	Endangered	SSC	-	3912323	ORRS SPRINGS	Mapped and Unprocessed	Animals - Amphibians - Ranidae - Rana boylii
Animals - Amphibians	Rana boylii	foothill yellow-legged frog	AAABH01050	None	Endangered	SSC	-	3912322	UKIAH	Mapped and Unprocessed	Animals - Amphibians - Ranidae - Rana boylii
Animals - Amphibians	Rana boylii	foothill yellow-legged frog	AAABH01050	None	Endangered	SSC	-	3912321	COW MOUNTAIN	Mapped	Animals - Amphibians - Ranidae - Rana boylii
Animals - Amphibians	Rana boylii	foothill yellow-legged frog	AAABH01050	None	Endangered	SSC	-	3912313	BOONVILLE	Mapped	Animals - Amphibians - Ranidae - Rana boylii
Animals - Amphibians	Rana boylii	foothill yellow-legged frog	AAABH01050	None	Endangered	SSC	-	3912312	ELLEDGE PEAK	Mapped and Unprocessed	Animals - Amphibians - Ranidae - Rana boylii
Animals - Amphibians	Rana boylii	foothill yellow-legged frog	AAABH01050	None	Endangered	SSC	-	3912311	PURDYS GARDENS	Mapped and Unprocessed	Animals - Amphibians - Ranidae - Rana boylii
Animals - Amphibians	Taricha rivularis	red-bellied newt	AAAAF02020	None	None	SSC	-	3912312	ELLEDGE PEAK	Mapped	Animals - Amphibians - Salamandridae - Taricha rivularis
Animals - Amphibians	Taricha rivularis	red-bellied newt	AAAAF02020	None	None	SSC	-	3912313	BOONVILLE	Mapped	Animals - Amphibians - Salamandridae - Taricha rivularis
Animals - Amphibians	Taricha rivularis	red-bellied newt	AAAAF02020	None	None	SSC	-	3912321	COW MOUNTAIN	Mapped	Animals - Amphibians - Salamandridae - Taricha rivularis
Animals - Amphibians	Taricha rivularis	red-bellied newt	AAAAF02020	None	None	SSC	-	3912322	UKIAH	Mapped and Unprocessed	Animals - Amphibians - Salamandridae - Taricha rivularis
Animals - Amphibians	Taricha rivularis	red-bellied newt	AAAAF02020	None	None	SSC	-	3912323	ORRS SPRINGS	Mapped and Unprocessed	Animals - Amphibians - Salamandridae - Taricha rivularis
Animals - Amphibians	Taricha rivularis	red-bellied newt	AAAAF02020	None	None	SSC	-	3912333	LAUGHLIN RANGE	Mapped and Unprocessed	Animals - Amphibians - Salamandridae - Taricha rivularis
Animals - Birds	Accipiter gentilis	northern goshawk	ABNKC12060	None	None	SSC	-	3912331	POTTER VALLEY	Mapped	Animals - Birds - Accipitridae - Accipiter gentilis

Animals - Birds	Aquila chrysaetos	golden eagle	ABNKC22010	None	None	FP , WL	-	3912321	COW MOUNTAIN	Unprocessed	Animals - Birds - Accipitridae - Aquila chrysaetos
Animals - Birds	Aquila chrysaetos	golden eagle	ABNKC22010	None	None	FP , WL	-	3912311	PURDYS GARDENS	Unprocessed	Animals - Birds - Accipitridae - Aquila chrysaetos
Animals - Birds	Circus hudsonius	northern harrier	ABNKC11011	None	None	SSC	-	3912311	PURDYS GARDENS	Unprocessed	Animals - Birds - Accipitridae - Circus hudsonius
Animals - Birds	Elanus leucurus	white-tailed kite	ABNKC06010	None	None	FP	-	3912332	REDWOOD VALLEY	Unprocessed	Animals - Birds - Accipitridae - Elanus leucurus
Animals - Birds	Ardea alba	great egret	ABNGA04040	None	None	-	-	3912322	UKIAH	Unprocessed	Animals - Birds - Ardeidae - Ardea alba
Animals - Birds	Ardea herodias	great blue heron	ABNGA04010	None	None	-	-	3912322	UKIAH	Unprocessed	Animals - Birds - Ardeidae - Ardea herodias
Animals - Birds	Agelaius tricolor	tricolored blackbird	ABPBXB0020	None	Threatened	SSC	-	3912331	POTTER VALLEY	Mapped	Animals - Birds - Icteridae - Agelaius tricolor
Animals - Birds	Icteria virens	yellow-breasted chat	ABPBX24010	None	None	SSC	-	3912331	POTTER VALLEY	Unprocessed	Animals - Birds - Icteriidae - Icteria virens
Animals - Birds	Icteria virens	yellow-breasted chat	ABPBX24010	None	None	SSC	-	3912332	REDWOOD VALLEY	Unprocessed	Animals - Birds - Icteriidae - Icteria virens
Animals - Birds	Icteria virens	yellow-breasted chat	ABPBX24010	None	None	SSC	-	3912322	UKIAH	Unprocessed	Animals - Birds - Icteriidae - Icteria virens
Animals - Birds	Icteria virens	yellow-breasted chat	ABPBX24010	None	None	SSC	-	3912321	COW MOUNTAIN	Unprocessed	Animals - Birds - Icteriidae - Icteria virens
Animals - Birds	Icteria virens	yellow-breasted chat	ABPBX24010	None	None	SSC	-	3912312	ELLEDGE PEAK	Unprocessed	Animals - Birds - Icteriidae - Icteria virens
Animals - Birds	Pandion haliaetus	osprey	ABNKC01010	None	None	WL	-	3912311	PURDYS GARDENS	Mapped	Animals - Birds - Pandionidae - Pandion haliaetus
Animals - Birds	Pandion haliaetus	osprey	ABNKC01010	None	None	WL	-	3912322	UKIAH	Mapped	Animals - Birds - Pandionidae - Pandion haliaetus
Animals - Birds	Pandion haliaetus	osprey	ABNKC01010	None	None	WL	-	3912331	POTTER VALLEY	Unprocessed	Animals - Birds - Pandionidae - Pandion haliaetus
Animals - Birds	Setophaga petechia	yellow warbler	ABPBX03010	None	None	SSC	-	3912331	POTTER VALLEY	Unprocessed	Animals - Birds - Parulidae - Setophaga petechia
Animals - Birds	Setophaga petechia	yellow warbler	ABPBX03010	None	None	SSC	-	3912312	ELLEDGE PEAK	Unprocessed	Animals - Birds - Parulidae - Setophaga petechia
Animals - Birds	Ammodramus savannarum	grasshopper sparrow	ABPBXA0020	None	None	SSC	-	3912311	PURDYS GARDENS	Mapped	Animals - Birds - Passerellidae - Ammodramus savannarum
Animals - Birds	Melanerpes lewis	Lewis' woodpecker	ABNYF04010	None	None	-	-	3912312	ELLEDGE PEAK	Unprocessed	Animals - Birds - Picidae - Melanerpes lewis

Animals - Birds	Melanerpes lewis	Lewis' woodpecker	ABNYF04010	None	None	-	-	3912322	UKIAH	Unprocessed	Animals - Birds - Picidae - Melanerpes lewis
Animals - Birds	Strix occidentalis caurina	Northern Spotted Owl	ABNSB12011	Threatened	Threatened	-	-	3912313	BOONVILLE	Mapped	Animals - Birds - Strigidae - Strix occidentalis caurina
Animals - Birds	Strix occidentalis caurina	Northern Spotted Owl	ABNSB12011	Threatened	Threatened	-	-	3912323	ORRS SPRINGS	Mapped	Animals - Birds - Strigidae - Strix occidentalis caurina
Animals - Birds	Strix occidentalis caurina	Northern Spotted Owl	ABNSB12011	Threatened	Threatened	-	-	3912331	POTTER VALLEY	Mapped	Animals - Birds - Strigidae - Strix occidentalis caurina
Animals - Birds	Strix occidentalis caurina	Northern Spotted Owl	ABNSB12011	Threatened	Threatened	-	-	3912332	REDWOOD VALLEY	Mapped	Animals - Birds - Strigidae - Strix occidentalis caurina
Animals - Birds	Strix occidentalis caurina	Northern Spotted Owl	ABNSB12011	Threatened	Threatened	-	-	3912333	LAUGHLIN RANGE	Mapped	Animals - Birds - Strigidae - Strix occidentalis caurina
Animals - Fish	Cottus asper ssp.	Clear Lake prickly sculpin	AFC4E02021	None	None	SSC	-	3912321	COW MOUNTAIN	Unprocessed	Animals - Fish - Cottidae - Cottus asper ssp.
Animals - Fish	Hesperoleucus venustus navarroensis	northern coastal roach	AFCJB19031	None	None	SSC	-	3912333	LAUGHLIN RANGE	Unprocessed	Animals - Fish - Cyprinidae - Hesperoleucus venustus navarroensis
Animals - Fish	Hesperoleucus venustus navarroensis	northern coastal roach	AFCJB19031	None	None	SSC	-	3912323	ORRS SPRINGS	Unprocessed	Animals - Fish - Cyprinidae - Hesperoleucus venustus navarroensis
Animals - Fish	Hysterocarpus traskii lagunae	Clear Lake tule perch	AFCQK02013	None	None	SSC	-	3912321	COW MOUNTAIN	Mapped	Animals - Fish - Embiotocidae - Hysterocarpus traskii lagunae
Animals - Fish	Hysterocarpus traskii pomo	Russian River tule perch	AFCQK02011	None	None	SSC	-	3912321	COW MOUNTAIN	Unprocessed	Animals - Fish - Embiotocidae - Hysterocarpus traskii pomo
Animals - Fish	Hysterocarpus traskii pomo	Russian River tule perch	AFCQK02011	None	None	SSC	-	3912312	ELLEDGE PEAK	Unprocessed	Animals - Fish - Embiotocidae - Hysterocarpus traskii pomo
Animals - Fish	Hysterocarpus traskii pomo	Russian River tule perch	AFCQK02011	None	None	SSC	-	3912322	UKIAH	Unprocessed	Animals - Fish - Embiotocidae - Hysterocarpus traskii pomo
Animals - Fish	Hysterocarpus traskii pomo	Russian River tule perch	AFCQK02011	None	None	SSC	-	3912323	ORRS SPRINGS	Unprocessed	Animals - Fish - Embiotocidae - Hysterocarpus traskii pomo
Animals - Fish	Hysterocarpus traskii pomo	Russian River tule perch	AFCQK02011	None	None	SSC	-	3912331	POTTER VALLEY	Unprocessed	Animals - Fish - Embiotocidae - Hysterocarpus traskii pomo

Animals - Fish	Hysterocarpus traskii pomo	Russian River tule perch	AFCQK02011	None	None	SSC	-	3912332	REDWOOD VALLEY	Unprocessed	Animals - Fish - Embiotocidae - Hysterocarpus traskii pomo
Animals - Fish	Hysterocarpus traskii pomo	Russian River tule perch	AFCQK02011	None	None	SSC	-	3912333	LAUGHLIN RANGE	Unprocessed	Animals - Fish - Embiotocidae - Hysterocarpus traskii pomo
Animals - Fish	Hysterocarpus traskii pomo	Russian River tule perch	AFCQK02011	None	None	SSC	-	3912311	PURDYS GARDENS	Unprocessed	Animals - Fish - Embiotocidae - Hysterocarpus traskii pomo
Animals - Fish	Entosphenus tridentatus	Pacific lamprey	AFBAA02100	None	None	SSC	-	3912333	LAUGHLIN RANGE	Unprocessed	Animals - Fish - Petromyzontidae - Entosphenus tridentatus
Animals - Fish	Entosphenus tridentatus	Pacific lamprey	AFBAA02100	None	None	SSC	-	3912323	ORRS SPRINGS	Unprocessed	Animals - Fish - Petromyzontidae - Entosphenus tridentatus
Animals - Fish	Oncorhynchus kisutch pop. 2	coho salmon - southern Oregon / northern California ESU	AFCHA02032	Threatened	Threatened	-	-	3912333	LAUGHLIN RANGE	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus kisutch pop. 2
Animals - Fish	Oncorhynchus kisutch pop. 4	coho salmon - central California coast ESU	AFCHA02034	Endangered	Endangered	-	-	3912322	UKIAH	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus kisutch pop. 4
Animals - Fish	Oncorhynchus kisutch pop. 4	coho salmon - central California coast ESU	AFCHA02034	Endangered	Endangered	-	-	3912313	BOONVILLE	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus kisutch pop. 4
Animals - Fish	Oncorhynchus mykiss irideus pop. 16	steelhead - northern California DPS	AFCHA0209Q	Threatened	None	-	-	3912313	BOONVILLE	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus pop. 16
Animals - Fish	Oncorhynchus mykiss irideus pop. 16	steelhead - northern California DPS	AFCHA0209Q	Threatened	None	-	-	3912323	ORRS SPRINGS	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus pop. 16
Animals - Fish	Oncorhynchus mykiss irideus pop. 16	steelhead - northern California DPS	AFCHA0209Q	Threatened	None	-	-	3912333	LAUGHLIN RANGE	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus pop. 16
Animals - Fish	Oncorhynchus mykiss irideus pop. 8	steelhead - central California coast DPS	AFCHA0209G	Threatened	None	-	-	3912333	LAUGHLIN RANGE	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus pop. 8
Animals - Fish	Oncorhynchus mykiss irideus pop. 8	steelhead - central California coast DPS	AFCHA0209G	Threatened	None	-	-	3912332	REDWOOD VALLEY	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus pop. 8

Animals - Fish	Oncorhynchus mykiss irideus pop. 8	steelhead - central California coast DPS	AFCHA0209G	Threatened	None	-	-	3912323	ORRS SPRINGS	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus pop. 8
Animals - Fish	Oncorhynchus mykiss irideus pop. 8	steelhead - central California coast DPS	AFCHA0209G	Threatened	None	-	-	3912322	UKIAH	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus pop. 8
Animals - Fish	Oncorhynchus mykiss irideus pop. 8	steelhead - central California coast DPS	AFCHA0209G	Threatened	None	-	-	3912321	COW MOUNTAIN	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus pop. 8
Animals - Fish	Oncorhynchus mykiss irideus pop. 8	steelhead - central California coast DPS	AFCHA0209G	Threatened	None	-	-	3912313	BOONVILLE	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus pop. 8
Animals - Fish	Oncorhynchus mykiss irideus pop. 8	steelhead - central California coast DPS	AFCHA0209G	Threatened	None	-	-	3912312	ELLEDGE PEAK	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus pop. 8
Animals - Fish	Oncorhynchus mykiss irideus pop. 8	steelhead - central California coast DPS	AFCHA0209G	Threatened	None	-	-	3912311	PURDYS GARDENS	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus pop. 8
Animals - Fish	Oncorhynchus tshawytscha pop. 17	chinook salmon - California coastal ESU	AFCHA0205S	Threatened	None	-	-	3912311	PURDYS GARDENS	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus tshawytscha pop. 17
Animals - Fish	Oncorhynchus tshawytscha pop. 17	chinook salmon - California coastal ESU	AFCHA0205S	Threatened	None	-	-	3912312	ELLEDGE PEAK	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus tshawytscha pop. 17
Animals - Fish	Oncorhynchus tshawytscha pop. 17	chinook salmon - California coastal ESU	AFCHA0205S	Threatened	None	-	-	3912322	UKIAH	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus tshawytscha pop. 17
Animals - Fish	Oncorhynchus tshawytscha pop. 17	chinook salmon - California coastal ESU	AFCHA0205S	Threatened	None	-	-	3912333	LAUGHLIN RANGE	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus tshawytscha pop. 17
Animals - Insects	Bombus caliginosus	obscure bumble bee	IIHYM24380	None	None	-	-	3912311	PURDYS GARDENS	Mapped	Animals - Insects - Apidae - Bombus caliginosus
Animals - Insects	Bombus occidentalis	western bumble bee	IIHYM24250	None	None	-	-	3912321	COW MOUNTAIN	Mapped and Unprocessed	Animals - Insects - Apidae - Bombus occidentalis
Animals - Mammals	Arborimus pomo	Sonoma tree vole	AMAFF23030	None	None	SSC	-	3912313	BOONVILLE	Mapped and Unprocessed	Animals - Mammals - Cricetidae - Arborimus pomo
Animals - Mammals	Arborimus pomo	Sonoma tree vole	AMAFF23030	None	None	SSC	-	3912333	LAUGHLIN RANGE	Mapped and Unprocessed	Animals - Mammals - Cricetidae - Arborimus pomo

Animals - Mammals	Arborimus pomo	Sonoma tree vole	AMAFF23030	None	None	SSC	-	3912331	POTTER VALLEY	Unprocessed	Animals - Mammals - Cricetidae - Arborimus pomo
Animals - Mammals	Erethizon dorsatum	North American porcupine	AMAFJ01010	None	None	-	-	3912313	BOONVILLE	Mapped and Unprocessed	Animals - Mammals - Erethizontidae - Erethizon dorsatum
Animals - Mammals	Erethizon dorsatum	North American porcupine	AMAFJ01010	None	None	-	-	3912312	ELLEDGE PEAK	Mapped	Animals - Mammals - Erethizontidae - Erethizon dorsatum
Animals - Mammals	Erethizon dorsatum	North American porcupine	AMAFJ01010	None	None	-	-	3912322	UKIAH	Mapped and Unprocessed	Animals - Mammals - Erethizontidae - Erethizon dorsatum
Animals - Mammals	Erethizon dorsatum	North American porcupine	AMAFJ01010	None	None	-	-	3912311	PURDYS GARDENS	Mapped	Animals - Mammals - Erethizontidae - Erethizon dorsatum
Animals - Mammals	Eumops perotis californicus	western mastiff bat	AMACD02011	None	None	SSC	-	3912332	REDWOOD VALLEY	Unprocessed	Animals - Mammals - Molossidae - Eumops perotis californicus
Animals - Mammals	Pekania pennanti	Fisher	AMAJF01020	None	None	SSC	-	3912332	REDWOOD VALLEY	Mapped	Animals - Mammals - Mustelidae - Pekania pennanti
Animals - Mammals	Pekania pennanti	Fisher	AMAJF01020	None	None	SSC	-	3912331	POTTER VALLEY	Unprocessed	Animals - Mammals - Mustelidae - Pekania pennanti
Animals - Mammals	Pekania pennanti	Fisher	AMAJF01020	None	None	SSC	-	3912311	PURDYS GARDENS	Mapped	Animals - Mammals - Mustelidae - Pekania pennanti
Animals - Mammals	Taxidea taxus	American badger	AMAJF04010	None	None	SSC	-	3912332	REDWOOD VALLEY	Unprocessed	Animals - Mammals - Mustelidae - Taxidea taxus
Animals - Mammals	Antrozous pallidus	pallid bat	AMACC10010	None	None	SSC	-	3912332	REDWOOD VALLEY	Unprocessed	Animals - Mammals - Vespertilionidae - Antrozous pallidus
Animals - Mammals	Antrozous pallidus	pallid bat	AMACC10010	None	None	SSC	-	3912331	POTTER VALLEY	Unprocessed	Animals - Mammals - Vespertilionidae - Antrozous pallidus
Animals - Mammals	Antrozous pallidus	pallid bat	AMACC10010	None	None	SSC	-	3912321	COW MOUNTAIN	Mapped	Animals - Mammals - Vespertilionidae - Antrozous pallidus
Animals - Mammals	Antrozous pallidus	pallid bat	AMACC10010	None	None	SSC	-	3912311	PURDYS GARDENS	Unprocessed	Animals - Mammals - Vespertilionidae - Antrozous pallidus
Animals - Mammals	Corynorhinus townsendii	Townsend's big-eared bat	AMACC08010	None	None	SSC	-	3912311	PURDYS GARDENS	Mapped	Animals - Mammals - Vespertilionidae - Corynorhinus townsendii
Animals - Mammals	Corynorhinus townsendii	Townsend's big-eared bat	AMACC08010	None	None	SSC	-	3912332	REDWOOD VALLEY	Mapped and Unprocessed	Animals - Mammals - Vespertilionidae - Corynorhinus townsendii

Animals - Mammals	Corynorhinus townsendii	Townsend's big-eared bat	AMACC08010	None	None	SSC	-	3912331	POTTER VALLEY	Unprocessed	Animals - Mammals - Vespertilionidae - Corynorhinus townsendii
Animals - Mammals	Corynorhinus townsendii	Townsend's big-eared bat	AMACC08010	None	None	SSC	-	3912333	LAUGHLIN RANGE	Unprocessed	Animals - Mammals - Vespertilionidae - Corynorhinus townsendii
Animals - Mammals	Lasiurus blossevillii	western red bat	AMACC05060	None	None	SSC	-	3912332	REDWOOD VALLEY	Unprocessed	Animals - Mammals - Vespertilionidae - Lasiurus blossevillii
Animals - Mammals	Lasiurus cinereus	hoary bat	AMACC05030	None	None	-	-	3912331	POTTER VALLEY	Unprocessed	Animals - Mammals - Vespertilionidae - Lasiurus cinereus
Animals - Mammals	Myotis lucifugus	little brown bat	AMACC01010	None	None	-	-	3912311	PURDYS GARDENS	Unprocessed	Animals - Mammals - Vespertilionidae - Myotis lucifugus
Animals - Mammals	Myotis yumanensis	Yuma myotis	AMACC01020	None	None	-	-	3912311	PURDYS GARDENS	Unprocessed	Animals - Mammals - Vespertilionidae - Myotis yumanensis
Animals - Mollusks	Gonidea angulata	western ridged mussel	IMBIV19010	None	None	-	-	3912321	COW MOUNTAIN	Mapped	Animals - Mollusks - Unionidae - Gonidea angulata
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-	3912321	COW MOUNTAIN	Mapped and Unprocessed	Animals - Reptiles - Emydidae - Emys marmorata
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-	3912313	BOONVILLE	Unprocessed	Animals - Reptiles - Emydidae - Emys marmorata
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-	3912312	ELLEDGE PEAK	Mapped	Animals - Reptiles - Emydidae - Emys marmorata
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-	3912322	UKIAH	Mapped and Unprocessed	Animals - Reptiles - Emydidae - Emys marmorata
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-	3912331	POTTER VALLEY	Mapped and Unprocessed	Animals - Reptiles - Emydidae - Emys marmorata
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-	3912323	ORRS SPRINGS	Unprocessed	Animals - Reptiles - Emydidae - Emys marmorata
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-	3912332	REDWOOD VALLEY	Mapped	Animals - Reptiles - Emydidae - Emys marmorata
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-	3912333	LAUGHLIN RANGE	Mapped and Unprocessed	Animals - Reptiles - Emydidae - Emys marmorata
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-	3912311	PURDYS GARDENS	Mapped and Unprocessed	Animals - Reptiles - Emydidae - Emys marmorata

Community - Terrestrial	Northern Interior Cypress Forest	Northern Interior Cypress Forest	CTT83220CA	None	None	-	-	3912311	PURDYS GARDENS	Mapped	Community - Terrestrial - Northern Interior Cypress Forest
Community - Terrestrial	Serpentine Bunchgrass	Serpentine Bunchgrass	CTT42130CA	None	None	-	-	3912311	PURDYS GARDENS	Mapped	Community - Terrestrial - Serpentine Bunchgrass
Plants - Bryophytes	Entosthodon kochii	Koch's cord moss	NBMUS2P050	None	None	-	1B.3	3912311	PURDYS GARDENS	Mapped	Plants - Bryophytes - Funariaceae - Entosthodon kochii
Plants - Bryophytes	Grimmia torenii	Toren's grimmia	NBMUS32330	None	None	-	1B.3	3912312	ELLEDGE PEAK	Mapped	Plants - Bryophytes - Grimmiaceae - Grimmia torenii
Plants - Bryophytes	Grimmia torenii	Toren's grimmia	NBMUS32330	None	None	-	1B.3	3912321	COW MOUNTAIN	Mapped	Plants - Bryophytes - Grimmiaceae - Grimmia torenii
Plants - Lichens	Usnea longissima	Methuselah's beard lichen	NLLEC5P420	None	None	-	4.2	3912323	ORRS SPRINGS	Mapped	Plants - Lichens - Parmeliaceae - Usnea longissima
Plants - Vascular	Perideridia gairdneri ssp. gairdneri	California Gairdner's yampah	PDAPI1N062	None	None	-	4.2	3912311	PURDYS GARDENS	Unprocessed	Plants - Vascular - Apiaceae - Perideridia gairdneri ssp. gairdneri
Plants - Vascular	Blennosperma bakeri	Sonoma sunshine	PDAST1A010	Endangered	Endangered	-	1B.1	3912333	LAUGHLIN RANGE	Mapped	Plants - Vascular - Asteraceae - Blennosperma bakeri
Plants - Vascular	Hemizonia congesta ssp. calyculata	Mendocino tarplant	PDAST4R063	None	None	-	4.3	3912333	LAUGHLIN RANGE	Unprocessed	Plants - Vascular - Asteraceae - Hemizonia congesta ssp. calyculata
Plants - Vascular	Hemizonia congesta ssp. calyculata	Mendocino tarplant	PDAST4R063	None	None	-	4.3	3912323	ORRS SPRINGS	Unprocessed	Plants - Vascular - Asteraceae - Hemizonia congesta ssp. calyculata
Plants - Vascular	Hemizonia congesta ssp. calyculata	Mendocino tarplant	PDAST4R063	None	None	-	4.3	3912321	COW MOUNTAIN	Unprocessed	Plants - Vascular - Asteraceae - Hemizonia congesta ssp. calyculata
Plants - Vascular	Hemizonia congesta ssp. calyculata	Mendocino tarplant	PDAST4R063	None	None	-	4.3	3912322	UKIAH	Unprocessed	Plants - Vascular - Asteraceae - Hemizonia congesta ssp. calyculata
Plants - Vascular	Hemizonia congesta ssp. tracyi	Tracy's tarplant	PDAST4R067	None	None	-	4.3	3912313	BOONVILLE	Unprocessed	Plants - Vascular - Asteraceae - Hemizonia congesta ssp. tracyi
Plants - Vascular	Hemizonia congesta ssp. tracyi	Tracy's tarplant	PDAST4R067	None	None	-	4.3	3912333	LAUGHLIN RANGE	Unprocessed	Plants - Vascular - Asteraceae - Hemizonia congesta ssp. tracyi
Plants - Vascular	Lasthenia burkei	Burke's goldfields	PDAST5L010	Endangered	Endangered	-	1B.1	3912322	UKIAH	Mapped	Plants - Vascular - Asteraceae - Lasthenia burkei
Plants - Vascular	Layia septentrionalis	Colusa layia	PDAST5N0F0	None	None	-	1B.2	3912311	PURDYS GARDENS	Mapped	Plants - Vascular - Asteraceae - Layia septentrionalis
Plants - Vascular	Lessingia hololeuca	woolly-headed lessingia	PDAST5S030	None	None	-	3	3912313	BOONVILLE	Unprocessed	Plants - Vascular - Asteraceae - Lessingia hololeuca

Plants - Vascular	Tracyina rostrata	beaked tracyina	PDAST9D010	None	None	-	1B.2	3912332	REDWOOD VALLEY	Unprocessed	Plants - Vascular - Asteraceae - Tracyina rostrata
Plants - Vascular	Tracyina rostrata	beaked tracyina	PDAST9D010	None	None	-	1B.2	3912311	PURDYS GARDENS	Mapped and Unprocessed	Plants - Vascular - Asteraceae - Tracyina rostrata
Plants - Vascular	Plagiobothrys lithocaryus	Mayacamas popcornflower	PDBOR0V0P0	None	None	-	1A	3912332	REDWOOD VALLEY	Mapped	Plants - Vascular - Boraginaceae - Plagiobothrys lithocaryus
Plants - Vascular	Plagiobothrys lithocaryus	Mayacamas popcornflower	PDBOR0V0P0	None	None	-	1A	3912331	POTTER VALLEY	Mapped	Plants - Vascular - Boraginaceae - Plagiobothrys lithocaryus
Plants - Vascular	Streptanthus glandulosus ssp. hoffmanii	Hoffman's bristly jewelflower	PDBRA2G0J4	None	None	-	1B.3	3912321	COW MOUNTAIN	Mapped	Plants - Vascular - Brassicaceae - Streptanthus glandulosus ssp. hoffmanii
Plants - Vascular	Brasenia schreberi	watershield	PDCAB01010	None	None	-	2B.3	3912333	LAUGHLIN RANGE	Mapped	Plants - Vascular - Cabombaceae - Brasenia schreberi
Plants - Vascular	Viburnum ellipticum	oval-leaved viburnum	PDCPR07080	None	None	-	2B.3	3912311	PURDYS GARDENS	Mapped	Plants - Vascular - Caprifoliaceae - Viburnum ellipticum
Plants - Vascular	Carex comosa	bristly sedge	PMCYP032Y0	None	None	-	2B.1	3912321	COW MOUNTAIN	Mapped	Plants - Vascular - Cyperaceae - Carex comosa
Plants - Vascular	Arctostaphylos stanfordiana ssp. raichei	Raiche's manzanita	PDERI041G2	None	None	-	1B.1	3912321	COW MOUNTAIN	Mapped	Plants - Vascular - Ericaceae - Arctostaphylos stanfordiana ssp. raichei
Plants - Vascular	Arctostaphylos stanfordiana ssp. raichei	Raiche's manzanita	PDERI041G2	None	None	-	1B.1	3912312	ELLEDGE PEAK	Mapped	Plants - Vascular - Ericaceae - Arctostaphylos stanfordiana ssp. raichei
Plants - Vascular	Arctostaphylos stanfordiana ssp. raichei	Raiche's manzanita	PDERI041G2	None	None	-	1B.1	3912322	UKIAH	Mapped	Plants - Vascular - Ericaceae - Arctostaphylos stanfordiana ssp. raichei
Plants - Vascular	Arctostaphylos stanfordiana ssp. raichei	Raiche's manzanita	PDERI041G2	None	None	-	1B.1	3912323	ORRS SPRINGS	Mapped	Plants - Vascular - Ericaceae - Arctostaphylos stanfordiana ssp. raichei
Plants - Vascular	Arctostaphylos stanfordiana ssp. raichei	Raiche's manzanita	PDERI041G2	None	None	-	1B.1	3912311	PURDYS GARDENS	Mapped	Plants - Vascular - Ericaceae - Arctostaphylos stanfordiana ssp. raichei
Plants - Vascular	Astragalus breweri	Brewer's milk-vetch	PDFAB0F1J0	None	None	-	4.2	3912331	POTTER VALLEY	Unprocessed	Plants - Vascular - Fabaceae - Astragalus breweri
Plants - Vascular	Trifolium buckwestiorum	Santa Cruz clover	PDFAB402W0	None	None	-	1B.1	3912333	LAUGHLIN RANGE	Mapped	Plants - Vascular - Fabaceae - Trifolium buckwestiorum

Plants - Vascular	Monardella viridis	green monardella	PDLAM180Q2	None	None	-	4.3	3912311	PURDYS GARDENS	Unprocessed	Plants - Vascular - Lamiaceae - Monardella viridis
Plants - Vascular	Fritillaria agrestis	stinkbells	PMLIL0V010	None	None	-	4.2	3912322	UKIAH	Unprocessed	Plants - Vascular - Liliaceae - Fritillaria agrestis
Plants - Vascular	Fritillaria purdyi	Purdy's fritillary	PMLIL0V0H0	None	None	-	4.3	3912322	UKIAH	Unprocessed	Plants - Vascular - Liliaceae - Fritillaria purdyi
Plants - Vascular	Fritillaria purdyi	Purdy's fritillary	PMLIL0V0H0	None	None	-	4.3	3912331	POTTER VALLEY	Unprocessed	Plants - Vascular - Liliaceae - Fritillaria purdyi
Plants - Vascular	Fritillaria purdyi	Purdy's fritillary	PMLIL0V0H0	None	None	-	4.3	3912332	REDWOOD VALLEY	Unprocessed	Plants - Vascular - Liliaceae - Fritillaria purdyi
Plants - Vascular	Fritillaria roderickii	Roderick's fritillary	PMLIL0V0M0	None	Endangered	-	1B.1	3912333	LAUGHLIN RANGE	Mapped	Plants - Vascular - Liliaceae - Fritillaria roderickii
Plants - Vascular	Lilium rubescens	redwood lily	PMLIL1A0N0	None	None	-	4.2	3912311	PURDYS GARDENS	Unprocessed	Plants - Vascular - Liliaceae - Lilium rubescens
Plants - Vascular	Limnanthes bakeri	Baker's meadowfoam	PDLIM02020	None	Rare	-	1B.1	3912322	UKIAH	Mapped and Unprocessed	Plants - Vascular - Limnanthaceae - Limnanthes bakeri
Plants - Vascular	Hesperolinon adenophyllum	glandular western flax	PDLIN01010	None	None	-	1B.2	3912321	COW MOUNTAIN	Mapped	Plants - Vascular - Linaceae - Hesperolinon adenophyllum
Plants - Vascular	Hesperolinon adenophyllum	glandular western flax	PDLIN01010	None	None	-	1B.2	3912331	POTTER VALLEY	Mapped	Plants - Vascular - Linaceae - Hesperolinon adenophyllum
Plants - Vascular	Hesperolinon adenophyllum	glandular western flax	PDLIN01010	None	None	-	1B.2	3912333	LAUGHLIN RANGE	Mapped	Plants - Vascular - Linaceae - Hesperolinon adenophyllum
Plants - Vascular	Malacothamnus mendocinensis	Mendocino bush-mallow	PDMAL0Q0D0	None	None	-	1A	3912312	ELLEDGE PEAK	Mapped	Plants - Vascular - Malvaceae - Malacothamnus mendocinensis
Plants - Vascular	Cypripedium californicum	California lady's-slipper	PMORC0Q040	None	None	-	4.2	3912312	ELLEDGE PEAK	Unprocessed	Plants - Vascular - Orchidaceae - Cypripedium californicum
Plants - Vascular	Cypripedium californicum	California lady's-slipper	PMORC0Q040	None	None	-	4.2	3912322	UKIAH	Unprocessed	Plants - Vascular - Orchidaceae - Cypripedium californicum
Plants - Vascular	Cypripedium montanum	mountain lady's-slipper	PMORC0Q080	None	None	-	4.2	3912322	UKIAH	Unprocessed	Plants - Vascular - Orchidaceae - Cypripedium montanum
Plants - Vascular	Cypripedium montanum	mountain lady's-slipper	PMORC0Q080	None	None	-	4.2	3912323	ORRS SPRINGS	Unprocessed	Plants - Vascular - Orchidaceae - Cypripedium montanum
Plants - Vascular	Cypripedium montanum	mountain lady's-slipper	PMORC0Q080	None	None	-	4.2	3912312	ELLEDGE PEAK	Unprocessed	Plants - Vascular - Orchidaceae - Cypripedium montanum

Plants - Vascular	Piperia candida	white-flowered rein orchid	PMORC1X050	None	None	-	1B.2	3912323	ORRS SPRINGS	Mapped	Plants - Vascular - Orchidaceae - Piperia candida
Plants - Vascular	Kopsiopsis hookeri	small groundcone	PDORO01010	None	None	-	2B.3	3912311	PURDYS GARDENS	Mapped	Plants - Vascular - Orobanchaceae - Kopsiopsis hookeri
Plants - Vascular	Erythranthe nudata	bare monkeyflower	PDSCR1B200	None	None	-	4.3	3912333	LAUGHLIN RANGE	Unprocessed	Plants - Vascular - Phrymaceae - Erythranthe nudata
Plants - Vascular	Gratiola heterosepala	Boggs Lake hedge-hyssop	PDSCR0R060	None	Endangered	-	1B.2	3912311	PURDYS GARDENS	Mapped	Plants - Vascular - Plantaginaceae - Gratiola heterosepala
Plants - Vascular	Pleuropogon hooverianus	North Coast semaphore grass	PMPOA4Y070	None	Threatened	-	1B.1	3912323	ORRS SPRINGS	Mapped and Unprocessed	Plants - Vascular - Poaceae - Pleuropogon hooverianus
Plants - Vascular	Pleuropogon hooverianus	North Coast semaphore grass	PMPOA4Y070	None	Threatened	-	1B.1	3912312	ELLEDGE PEAK	Mapped	Plants - Vascular - Poaceae - Pleuropogon hooverianus
Plants - Vascular	Leptosiphon acicularis	bristly leptosiphon	PDPLM09010	None	None	-	4.2	3912312	ELLEDGE PEAK	Unprocessed	Plants - Vascular - Polemoniaceae - Leptosiphon acicularis
Plants - Vascular	Leptosiphon acicularis	bristly leptosiphon	PDPLM09010	None	None	-	4.2	3912322	UKIAH	Unprocessed	Plants - Vascular - Polemoniaceae - Leptosiphon acicularis
Plants - Vascular	Leptosiphon acicularis	bristly leptosiphon	PDPLM09010	None	None	-	4.2	3912331	POTTER VALLEY	Unprocessed	Plants - Vascular - Polemoniaceae - Leptosiphon acicularis
Plants - Vascular	Leptosiphon acicularis	bristly leptosiphon	PDPLM09010	None	None	-	4.2	3912323	ORRS SPRINGS	Unprocessed	Plants - Vascular - Polemoniaceae - Leptosiphon acicularis
Plants - Vascular	Leptosiphon acicularis	bristly leptosiphon	PDPLM09010	None	None	-	4.2	3912333	LAUGHLIN RANGE	Unprocessed	Plants - Vascular - Polemoniaceae - Leptosiphon acicularis
Plants - Vascular	Leptosiphon acicularis	bristly leptosiphon	PDPLM09010	None	None	-	4.2	3912332	REDWOOD VALLEY	Unprocessed	Plants - Vascular - Polemoniaceae - Leptosiphon acicularis
Plants - Vascular	Leptosiphon acicularis	bristly leptosiphon	PDPLM09010	None	None	-	4.2	3912311	PURDYS GARDENS	Unprocessed	Plants - Vascular - Polemoniaceae - Leptosiphon acicularis
Plants - Vascular	Leptosiphon latisectus	broad-lobed leptosiphon	PDPLM09150	None	None	-	4.3	3912333	LAUGHLIN RANGE	Unprocessed	Plants - Vascular - Polemoniaceae - Leptosiphon latisectus
Plants - Vascular	Leptosiphon latisectus	broad-lobed leptosiphon	PDPLM09150	None	None	-	4.3	3912323	ORRS SPRINGS	Unprocessed	Plants - Vascular - Polemoniaceae - Leptosiphon latisectus
Plants - Vascular	Leptosiphon latisectus	broad-lobed leptosiphon	PDPLM09150	None	None	-	4.3	3912331	POTTER VALLEY	Unprocessed	Plants - Vascular - Polemoniaceae - Leptosiphon latisectus

Plants - Vascular	Leptosiphon latisectus	broad-lobed leptosiphon	PDPLM09150	None	None	-	4.3	3912322	UKIAH	Unprocessed	Plants - Vascular - Polemoniaceae - Leptosiphon latisectus
Plants - Vascular	Navarretia leucocephala ssp. bakeri	Baker's navarretia	PDPLM0C0E1	None	None	-	1B.1	3912322	UKIAH	Mapped	Plants - Vascular - Polemoniaceae - Navarretia leucocephala ssp. bakeri
Plants - Vascular	Navarretia leucocephala ssp. bakeri	Baker's navarretia	PDPLM0C0E1	None	None	-	1B.1	3912333	LAUGHLIN RANGE	Mapped	Plants - Vascular - Polemoniaceae - Navarretia leucocephala ssp. bakeri
Plants - Vascular	Navarretia leucocephala ssp. bakeri	Baker's navarretia	PDPLM0C0E1	None	None	-	1B.1	3912332	REDWOOD VALLEY	Mapped	Plants - Vascular - Polemoniaceae - Navarretia leucocephala ssp. bakeri
Plants - Vascular	Ranunculus lobbii	Lobb's aquatic buttercup	PDRAN0L1J0	None	None	-	4.2	3912322	UKIAH	Unprocessed	Plants - Vascular - Ranunculaceae - Ranunculus lobbii
Plants - Vascular	Ranunculus lobbii	Lobb's aquatic buttercup	PDRAN0L1J0	None	None	-	4.2	3912311	PURDYS GARDENS	Unprocessed	Plants - Vascular - Ranunculaceae - Ranunculus lobbii
Plants - Vascular	Ceanothus confusus	Rincon Ridge ceanothus	PDRHA04220	None	None	-	1B.1	3912311	PURDYS GARDENS	Mapped	Plants - Vascular - Rhamnaceae - Ceanothus confusus
Plants - Vascular	Horkelia bolanderi	Bolander's horkelia	PDROS0W011	None	None	-	1B.2	3912311	PURDYS GARDENS	Mapped	Plants - Vascular - Rosaceae - Horkelia bolanderi

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Arcata Fish And Wildlife Office
1655 Heindon Road
Arcata, CA 95521-4573
Phone: (707) 822-7201 Fax: (707) 822-8411

In Reply Refer To: November 05, 2021
Consultation Code: 08EACT00-2022-SLI-0041
Event Code: 08EACT00-2022-E-00117
Project Name: City of Ukiah Upper City View Trail Loop

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Arcata Fish And Wildlife Office
1655 Heindon Road
Arcata, CA 95521-4573
(707) 822-7201

Project Summary

Consultation Code: 08EACT00-2022-SLI-0041
Event Code: Some(08EACT00-2022-E-00117)
Project Name: City of Ukiah Upper City View Trail Loop
Project Type: ** OTHER **
Project Description: Hiking Trail
Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@39.15503855,-123.22680147989279,14z

Counties: Mendocino County, California

Endangered Species Act Species

There is a total of 8 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Birds

NAME	STATUS
Northern Spotted Owl *Strix occidentalis caurina* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/1123	Threatened
Western Snowy Plover *Charadrius nivosus nivosus* Population: Pacific Coast population DPS-U.S.A. (CA, OR, WA), Mexico (within 50 miles of Pacific coast) There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/8035	Threatened
Yellow-billed Cuckoo *Coccyzus americanus* Population: Western U.S. DPS There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog *Rana draytonii* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Flowering Plants

NAME	STATUS
Burke's Goldfields *Lasthenia burkei* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4338	Endangered
Contra Costa Goldfields *Lasthenia conjugens* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/7058	Endangered
Showy Indian Clover *Trifolium amoenum* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6459	Endangered

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Appendix F: Sanhedrin Chapter of the Native Plant Society Botanical Survey Report

A Botanical Study of the Upper City View Trail Project

Prepared by the Ukiah Valley Trail Group
for the City of Ukiah

Winter 2020

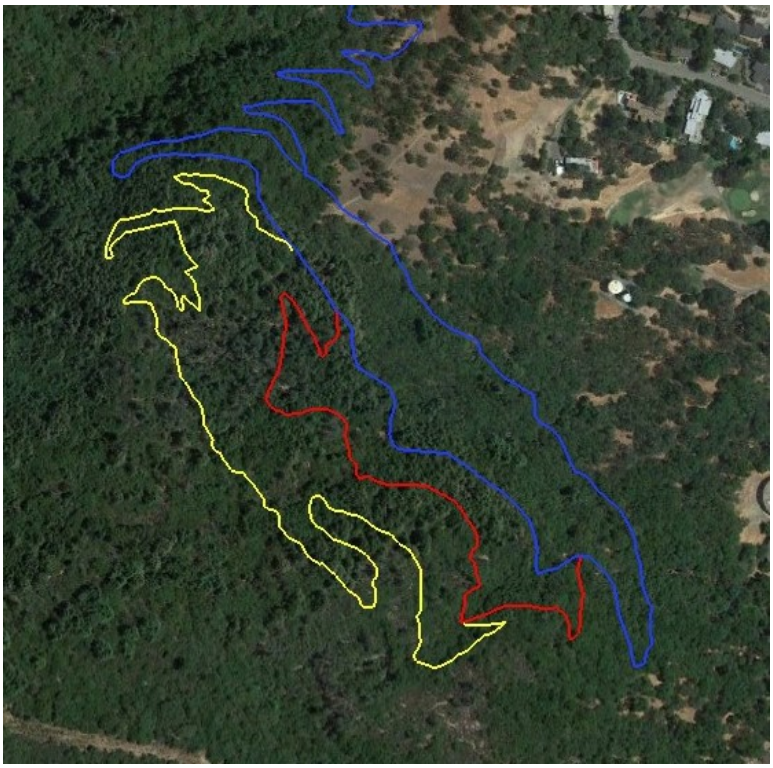
Table of Contents

Introduction

Trails have a wide variety of benefits including conservation-education achieved by allowing public access to natural spaces. These benefits do come at some environmental cost both during construction and through public use. These costs may include removing plants, disturbing soil, creating erosion and/or sedimentation, and impact on wildlife. It is therefore essential to evaluate the relative costs of the construction, maintenance and use of trails in order to ensure the project provides net benefit with an acceptable degree of mitigated or unmitigated environmental impact.

To assist with this evaluation, a study was conducted to identify or rule out the presence of endangered or rare plants that may be disturbed in the pursuit of the public benefit of the proposed Upper City View Trail and Upper City View Trail Lower Leg. Further, this study provides the information to evaluate if the trail should be built, not built, built with modifications, and/or built with mitigations to minimize any potential impacts on plant communities.

A survey of plants existing along the proposed trail corridors was conducted and both communities and individual species were identified with a focus on a search for listed species that have been identified as potentially being in the area. A list of plants identified along the corridor is included in Appendix B.



Blue – Existing City View Trail
Yellow – Proposed Upper City View Trail
Red – Proposed Upper City View Trail Lower Loop

Pre-Survey Investigations

In accordance with recommendations from the California Department of Fish and Wildlife (CDFW) and the California Native Plant Society (CNPS) a review of the USGS quadrangle of the survey area and the eight surrounding quadrangles was performed by Kerry Heise to identify special status plant species extant, or potentially extant in the identified trail corridor of the proposed Upper City View Trail Project. The CNPS Inventory of Rare and Endangered Plants, the On-line 8th Edition, and Rarefind via the California Natural Diversity Database (CNDDB) and the California Rare Plant Ranks (previously known as CNPS Lists) were used to develop a list of potentially occurring rare plants in the study area (Appendix A).

This list was used by the surveyors to focus their attention on habitats and areas where the likelihood of rare plants was high while concurrently investigating all plants in the study area.

Survey Methodology

A botanical survey was conducted along a twenty-foot wide corridor from the centerline of the proposed flagged trails. In 2019, surveys were conducted on 3/21, 4/11, 4/25, 6/8, and 7/19.

The surveys were floristic in nature and included all vascular taxa encountered within the Upper City View Trail Project alignment. Generally, plant phenology dates for potentially occurring rare species are used to determine the timing and frequency of surveys. Our site visits were conducted from early spring to mid-summer, a period which was broad enough to include known blooming and fruiting times of potentially occurring rare species, but also encompassing the blooming period of early annuals, wetland plants, and late blooming herbaceous perennial species – roughly March through July. The February survey date was deferred due to a late rainy season and subsequent late flowering of plants.

The level of effort required per given area and habitat was dependent upon the vegetation and its overall diversity and structural complexity. Surveys across the area followed the proposed trail corridors, and made extensive cross-country travel to thoroughly cover the entire area. No areas of special attention (serpentine, riparian, wetland) were found. Surveyors spent additional time in areas populated with Arctostaphylos but did not locate *Arctostaphylos stanfordiana ssp. raichei*.

Plant materials that could not be identified in the field were collected for later determination in the lab, compared with herbarium samples, or determined by the survey team under better conditions.

A team of professional and amateur botanists from the Sanhedrin Chapter of the Native Plant Society including Jen Ridell, Andrea Davis, Jim Xerogeanes, Emily Allen, and Neil Davis performed the surveys. This report is authored by Neil Davis.

Vegetation Description

The project area is located on the hills to the west of Ukiah. The hills rise steeply from the valley floor and are predominated by eastern facing slopes. A number of drainages create small sections of north-east and south-east facing slopes. The project area is almost exclusively in the Quercus Forest Alliance with very small "islands" of Redwood Forrest and Woodland Alliance and Arctostaphylos Shrubland Alliance.

The following Upper City View project vegetation alliances described below follow the National Vegetation Classification Hierarchy as applied to California vegetation. The description of each alliance is specific to vegetation composition documented during the field surveys.

Quercus (agrifolia, douglasii, garryana, kelloggii, lobata, wislizeni) Forest Alliance

- Mixed oak forest

This vegetation alliance covers approximately 95% of the project area. The proposed trail corridor bisects dense multi-species stands of oaks, madrone, and tanoak. The understory is sparse and leaf letter is predominantly thick. Co-dominate tree species include Interior Live Oak (*Quercus wislizeni*). Other occurring hardwoods include blue oak (*Q. douglasii*), Oregon oak (Quercus garryana), Oracle Oak (Quercus Xmorehus), Nutmeg (Torreya californica) and Buckeye (*Aesculus californicus*).

Sequoia sempervirens Forest & Woodland Alliance

- Redwood forest and woodland

The proposed trail corridor crosses a number of small redwood groves with dense over growths of young (<6"dbh) trees scattered in the shadier areas of drainages. The proposed trail corridor crosses one grove of more mature Redwoods with trees up to 30"dbh. Trail construction will not require removal of any tree greater than 6"dbh. The areas have little diversity. The immature stands are densely populated leaving little room for secondary species. The mature stand has a sparse understory with thick leaf litter.

Arctostaphylos (canescens, manzanita, stanfordiana) Shrubland Alliance

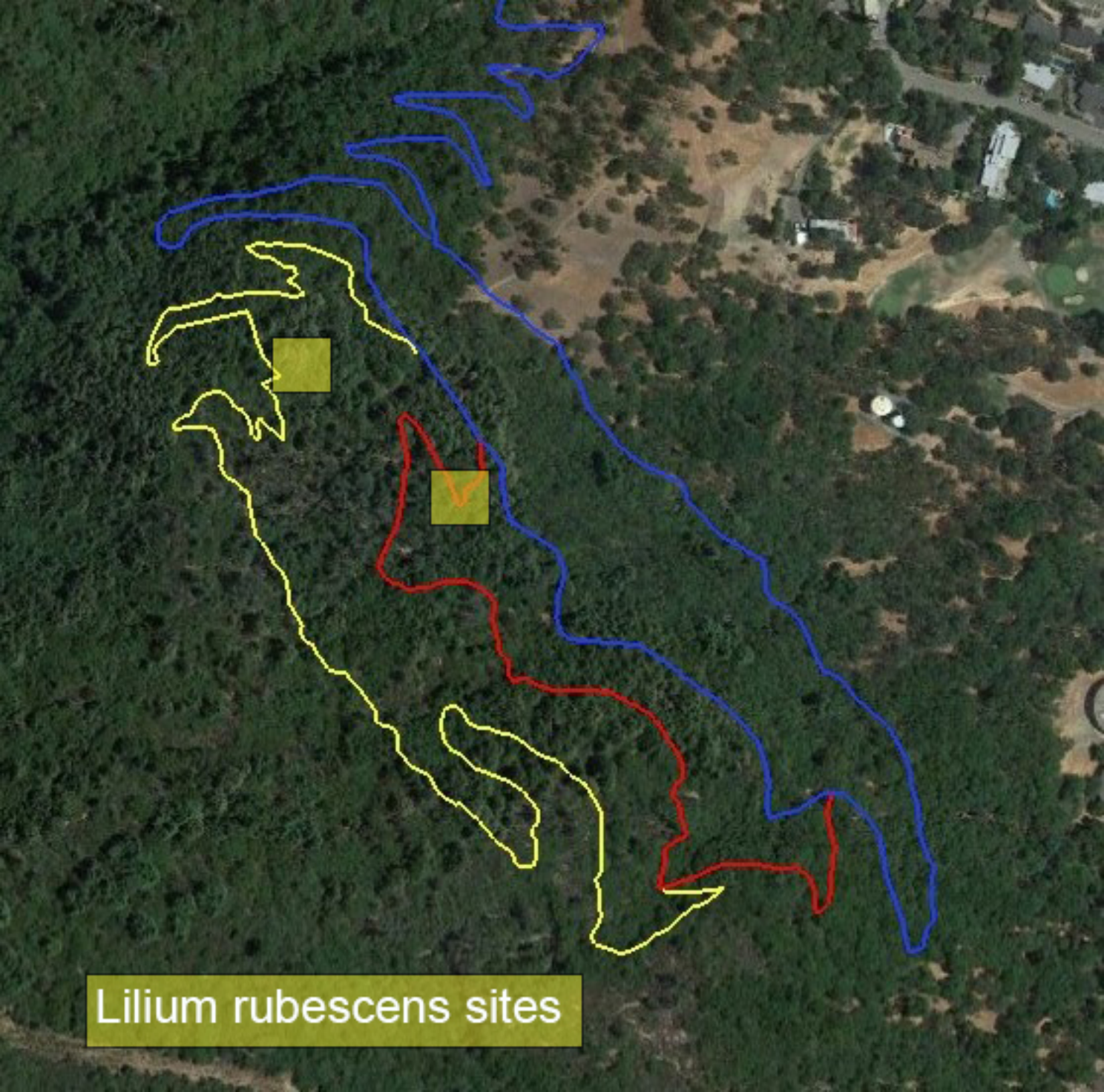
- Hoary, common, and Stanford manzanita chaparral

Characteristic Species
Arctostaphylos canescens, Arctostaphylos manzanita or Arctostaphylos stanfordiana is dominant or co-dominant in the shrub canopy with Adenostoma fasciculatum, Arctostaphylos auriculata, Arctostaphylos glandulosa, Arctostaphylos viscida, Baccharis pilularis, Ceanothus spp., Eriodictyon californicum, Heteromeles arbutifolia, Lotus scoparius, Pickeringia montana or Quercus berberidifolia. Emergent trees may be present at low cover, including Pinus attenuata, Pseudotsuga menziesii, Quercus chrysolepis, Quercus douglasii or Quercus wislizeni.

Survey Results

Potentially occurring rare species identified in the pre-study investigations were limited to Arctostaphylos stanfordiana ssp *raichei* and Lilium rubescens. Although the trail crosses the Arctostapylois Shrubland Alliance, subspecies rachei was not found. However, on both the main proposed corridor and the secondary additional corridor Lilium rubescens was found. Locations for the L. rubescens were geotagged. Field visits with the trail designer/builder confirmed the trail can be moved laterally to avoid areas where L rubescens is located.

Eighty-nine species were documented during the study period.


Lilium rubescens sites

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Appendix A: Potentially Occurring Rare Species, CNPS 9-quad search centered on Ukiah USGS Quad

Scientific Name	Common Name	Family	Rank	CESA	FESA
Arctostaphylos stanfordiana ssp. raichei	Raiche's manzanita	Ericaceae	1B.1	None	None
Astragalus breweri	Brewer's milk-vetch	Fabaceae	4.2	None	None
Brasenia schreberi	watershield	Cabombaceae	2B.3	None	None
Carex comosa	bristly sedge	Cyperaceae	2B.1	None	None
Ceanothus confusus	Rincon Ridge ceanothus	Rhamnaceae	1B.1	None	None
Cuscuta jepsonii	Jepson's dodder	Convolvulaceae	1B.2	None	None
Cypripedium californicum	California lady's-slipper	Orchidaceae	4.2	None	None
Cypripedium montanum	mountain lady's-slipper	Orchidaceae	4.2	None	None
Entosthodon kochii	Koch's cord moss	Funariaceae	1B.3	None	None
Fissidens pauperculus	minute pocket moss	Fissidentaceae	1B.2	None	None
Fritillaria roderickii	Roderick's fritillary	Liliaceae	1B.1	CE	None
Grimmia torenii	Toren's grimmia	Grimmiaceae	1B.3	None	None
Hemizonia congesta ssp. congesta	congested-headed hayfield tarplant	Asteraceae	1B.2	None	None
Hesperolinon adenophyllum	glandular western flax	Linaceae	1B.2	None	None
Horkelia bolanderi	Bolander's horkelia	Rosaceae	1B.2	None	None
Kopsiopsis hookeri	small groundcone	Orobanchaceae	2B.3	None	None
Lasthenia burkei	Burke's goldfields	Asteraceae	1B.1	CE	FE
Layia septentrionalis	Colusa layia	Asteraceae	1B.2	None	None
Lilium rubescens	redwood lily	Liliaceae	4.2	None	None
Limnanthes bakeri	Baker's meadowfoam	Limnanthaceae	1B.1	CR	None
Malacothamnus mendocinensis	Mendocino bush-mallow	Malvaceae	1A	None	None
Monardella viridis	green monardella	Lamiaceae	4.3	None	None
Navarretia leucocephala ssp. bakeri	Baker's navarretia	Polemoniaceae	1B.1	None	None
Perideridia gairdneri ssp. gairdneri	Gairdner's yampah	Apiaceae	4.2	None	None
Piperia candida	white-flowered rein orchid	Orchidaceae	1B.2	None	None
Plagiobothrys lithocaryus	Mayacamas popcornflower	Boraginaceae	1A	None	None
Pleuropogon hooverianus	North Coast semaphore grass	Poaceae	1B.1	CT	None
Ranunculus lobbii	Lobb's aquatic buttercup	Ranunculaceae	4.2	None	None
Sanguisorba officinalis	great burnet	Rosaceae	2B.2	None	None
Streptanthus glandulosus ssp. hoffmanii	Hoffman's bristly jewelflower	Brassicaceae	1B.3	None	None

Tracyina rostrata	beaked tracyina	Asteraceae	1B.2	None	None
Usnea longissima	Methuselah's beard lichen	Parmeliaceae	4.2	None	None
Viburnum ellipticum	oval-leaved viburnum	Adoxaceae	2B.3	None	None

CNPS, Rare Plant Program. 2017. Inventory of Rare and Endangered Plants (online edition, v8-02). California Native Plant Society, Sacramento, CA. Website http://www.rareplants.cnps.org [accessed 11 February 2017].

Plant List (Appendix B)

Annual Herbs	
Blennosperma nanum var. nanum	Common blennosperma
Calandrinia menziesii	Red maids
Clarkia concinna	Red ribbons
Clarkia gracilis ssp. sonomensis	Sonoma clarkia
Collinsia heterophylla	Chinese houses
Collinsia sparsiflora	Few flowered collinsia
Collomia sp.	Collomia
Eschscholzia californica	Ca Poppy
Lasthenia californica	Goldfields
Lasthenia californica ssp. californica	California goldfields
Limnanthes douglasii ssp. nivea	Snow white meadowfoam
Nemophila heterophylla	Canyon nemophila
Platystemon californicus	Cream cups
Plectritis ciliosa	Long spurred plectritis
Plectritis congesta ssp. brachystemon	Shortspur seablush
Perennial Herbs	
Anisocarpus madioides	Woodland madia
Calochortus tolmiei	Hairy star tulip
Campanula prenanthoides	CA Harebell
Cardamine californica	Bitter cress
Chlorogalum pomeridianum var. pomeridianum	Common soaproot
Clinopodium douglasii	Yerba buena
Cynoglossum grande	Houndstongue
Delphinium nudicaule	Canyon larkspur
Dichelostemma capitatum	Blue dicks
Dichelostemma ida-maia	Firecracker flower
Erythronium californicum	California fawn lily
Eriophyllum lanatum	Wooly sun flower
Eschscholzia californica	California poppy
Euphorbia oblongata	Eggleaf spurge
Fritillaria affinis	Checker lily
Galium sp.	galium
Hypericum concinnum	gold wire
Iris macrosiphon	Ground iris
Lathyrus vestitus var. vestitus	Hillside pea
Lilium rubescens	Redwood Lily
Lithophragma heterophyllum	Woodland star

Lysimachia latifolia	Pacific starflower
Micranthes californica	Greene's saxifrage
Pedicularis densiflora	Indian warrior
Polygala californica	CA Milkwort
Primula hendersonii	Mosquito bill, Shooting Star
Ranunculus occidentalis	Western buttercup
Sanicula crassicaulis	Pacific sanicle
Scrophularia californica	California bee plant
Sedum spathulifolium	Pacific stonecrop
Stachys sp.	Hedge Nettle
Taraxia ovata	Sun cup
Triteleia laxa	Ithuriel's Spear
Viola ocellata	Western heart's ease
Wyethia glabra	Smooth mule ears
Grasslike	
Briza maxima	Rattlesnake grass
Cynosurus echinatus	Hedghog dogtail
Elymus glaucus	Blue wildrye
Festuca californica	California fescue
Festuca idahoensis	Idaho fescue
Luzula comosa	Hairy wood rush
Forbs	
Arctostaphylos stanfordiana ssp stanfordiana	Stanford's Manzanita
Arctostaphylos glandulosa ssp glandulosa	Eastwood Manzanita
Adenostoma fasciculatum	Chamise
Baccharis pilularis	Coyote bush
Ceanothus sp.	California lilac
Heteromeles arbutifolia	Toyon
Pickeringia montana	Chaparall Pea
Rosa gymnocarpa	Wood Rose
Toxicodendron diversilobum	Poison Oak
Tree	
Aesculus californica	Buckeye
Arbutus menziesii	Madrone
Northolithcarpus densiflores	Tanoak
Pinus attenuata	Knobcone Pine
Pseudotsuga menziesii	Douglas Fir
Quercus agrifolia?	Coast Live Oak
Quercus berberidifolia	Inland Scrub Oak

Quercus chrysolepis	Canyon Oak
Quercus douglasii	Blue oak
Quercus garryana	Oregon oak
Quercus keloggii	Black Oak
Quercus parvula var. shrevei	Shreve Oak
Quercus wislizeni	Interior live oak
Quercus Xmorehus	Oracle oak
Sequoia sempervirens	Redwood
Torreya californica	California nutmeg
Umbellularia californica	Caliornia Bay
Vine	
Lonicera hespidula	Honeysuckle
Whipplea modesta	Modesty
Fern	
Dryopteris arguta	Coastal Wood Fern
Pentagramma triangularis	Goldback fern
Polypodium sp.	Licorice fern
Polystichum munitum	Western Sword fern
Pteridium aquilinum var. pubescens	Bracken fern