California Environmental Quality Act

DRAFT INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION FOR DOOLIN CREEK BANK REPAIR PROJECT

Prepared by:

City of Ukiah
Community Development Department
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April 12, 2019

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ATTACHMENTS

I. PROJECT INFORMATION

Project Title:

Doolin Creek Bank Repair Project

Lead Agency Address and Phone Number:

City of Ukiah
300 Seminary Avenue
Ukiah, California 95482
(707) 463-6200

Responsible Agencies Address and Phone Number:

California Department of Fish and Wildlife, Northern Region
601 Locust Street
Redding, CA 96001
(530) 225-2300

U.S. Army Corps of Engineers, San Francisco District
1455 Market Street
San Francisco, CA 94103-1398
(415) 503-6795

North Coast Regional Water Quality Control Board
5550 Skylane Boulevard, Suite A
Santa Rosa, CA 95403
(707) 576-2220

Project Contact Person and Phone Number:

Chris and Miranda Dabbs
733 Lake Mendocino Drive
Ukiah, CA 95482
(707) 467-3217

CEQA Contact Person and Phone Number:

Michelle Irace, Planning Manager
City of Ukiah Community Development Department
(707) 463-6207

Project Location:

Project is located at the west side of Helen Avenue at 1364 Helen Ave, Ukiah, CA (APN 003-490-96).

Project Summary:

The Project consists of repairing approximately 75 feet of stream bank on Doolin Creek to prevent damage to the supports of an existing residential deck. The Project includes: 1) the installation of jute netting to cover the bank during the winter to provide temporary protection; and 2) the installation of a bio-engineered crib wall with minor rip rap, encapsulated soil lifts, log cribbing and revegetation. The total area of disturbance is approximately 353 square feet, including a crib wall 45 feet in length, 4 feet in width and 6 feet in height. The property is located at 1364 Helen Ave. (APN 003-490-96).

General Plan Designation:

Low Density Residential (LDR)

Zoning District:

Single-Family Residential (R1)

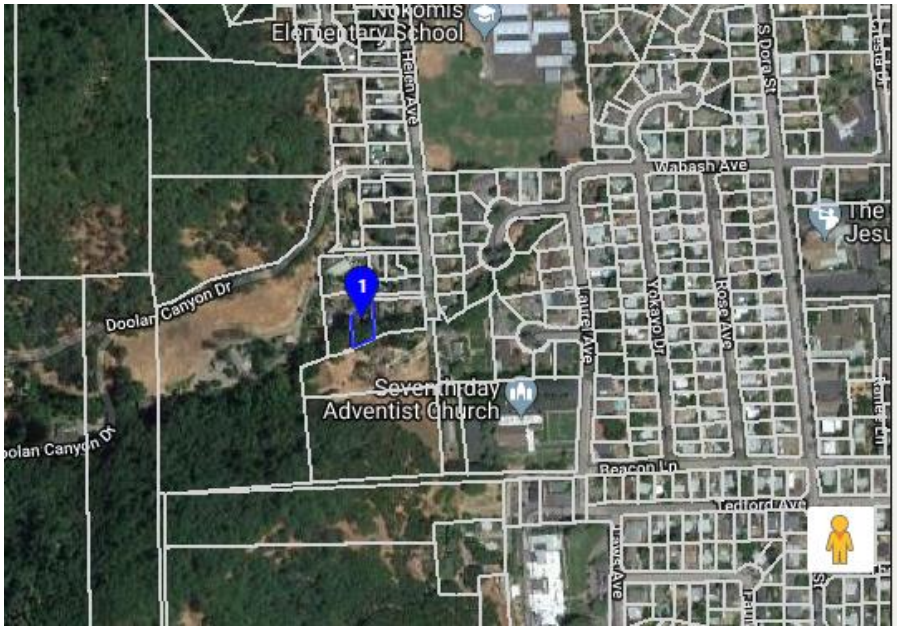
Other Public Agencies Requiring Approval:

The Project will require approval of a Lake and Streambed Alteration Agreement (LSAA) from the California Department of Fish & Wildlife, a Section 404 certification from the U.S. Army Corps of Engineers and a Section 401 certification from the Regional Water Quality Control Board.

II. PROJECT DESCRIPTION

1. Project Location

The Project Site is situated at the base of Doolan Canyon and the Western Hills in the southwest corner of the City limits near the terminus of Helen Avenue. It is located on a ±6,200- square foot City lot on the north side of Doolin Creek.



2. Environmental Setting

The 6,200 square feet lot contains an existing driveway and a single-family residence. An existing deck is attached to the rear (south) side of the residence. Timber deck supports extend into the channel below. The creek bank beneath the deck is covered with plastic sheeting and anchored with boulders to protect the exposed slope from further erosion. The Project Site consists of a shady section of creek bank under evergreen riparian canopy on the north side of Doolin Creek. The proposed work area is situated immediately adjacent to the single-family residence and directly below the existing deck. The deck and supports were originally constructed in 2006 on the bank, however, due to significant bank erosion are now in the channel. Photos of the existing site are included as **Attachment A**.

Doolin Creek, a perennial stream, flows along the southerly border of the subject property to the Russian River, approximately one mile to the east. Doolin Creek measures 15± feet wide in the vicinity of the proposed repair work. The low flow channel measures 4± feet wide. The eroded bank beneath the deck has been covered with plastic secured with boulders to protect the exposed bank from further erosion until repairs can be initiated.

The subject property is situated at the foot of the Western Hills of the Ukiah Valley at an elevation of approximately 680 feet above mean sea level (AMSL). The Project Site is surrounded on all sides by low-density residential development. Open space and undeveloped land interspersed with rural residential development within the County of Mendocino's jurisdiction is located to the south/west of the Site. Vegetation on the Project Site is comprised primarily of mature bay trees with an understory of predominantly non-native blackberry. The dense evergreen canopy creates a shaded environment.

The Ukiah General Plan land use designation of the parcel is Low-Density Residential and the property is zoned Single-Family Residential (R-1). The properties to the north and east consist of single-family residential development zoned R-1. Properties to the south and west include larger parcels within the unincorporated County of Mendocino, zoned Rural Residential, 5-acre minimum parcel size (RR-5).

3. Background

According to the applicant, significant storm events from the 2016-17 winter season caused the bank to erode, threatening to undermine the existing deck by exposing the deck supports. The applicant has initiated the permit process in order to implement bank repair measures and prevent the deck from collapsing into the creek.

4. Project Description

The project proposes to repair a portion of the northern bank of Doolin Creek, which runs through the southern portion of the owner's property at 1364 Helen Avenue in Ukiah, California. Significant storm events from the winters of 2016 and 2017 have caused the existing creek bank to erode to the north, threatening to erode the supports of an existing deck. The goal of the project is to repair the bank to the previous condition and prevent the existing deck supports from eroding and causing the collapse of the deck into the creek, ultimately to protect fish and wildlife resources.

The work proposes to cover the currently eroding bank with a layer of jute netting secured in place with staples or ground anchors, to provide cover for the eroded bank through the wet season months and hinder erosion. The jute netting will be installed using hand tools only. No alterations will be made to the eroded slope itself during the wet season.

At the conclusion of the rainy season, it is proposed to repair the eroded segment of the creek bank beneath and adjacent to the existing deck. Proposed features are minor rip rap with a bio-engineered crib wall consisting of encapsulated soil lifts, log cribbing, and willow plantings or other vegetation, anchoring the bank stabilization. The total area of work is approximately 75 feet in length, with the bio-engineered crib wall spanning approximately 45 feet in length, 6 feet in height, 4 feet in width, and consists of an area of 270 square feet and an encapsulated soil lift volume of approximately 20 cubic yards. Refer to the Creek Bank Repair Plans.

To prevent impacts to fish and wildlife resources, all work is anticipated to be performed with hand tools only. However, the Project may involve the use of gasoline-powered chainsaws for cutting logs used in the crib wall. To prevent sediment from entering the creek, temporary plywood with sandbags is proposed to be installed to prevent water from entering the work area. Plywood and sandbags will be removed after creek bank repair work is completed. All disturbed areas will be seeded and strawed at the completion of creek bank repair to prevent erosion.
The Project will cover an area of approximately 353 square feet, which includes activities outside of the creek bank such as riprap placement and willow, or other woody species plantings. According to BC Engineering, the 20 cubic yards of soil used for construction will be delivered to the property, unloaded as close to the Project area as feasible and transported to the creek using wheelbarrows to avoid the use of heavy equipment within creek banks. No soil would be removed from the Site.

The bank would be revegetated with an irrigation system to irrigate the vegetation at a regular frequency. Revegetated areas would be monitored for a period of five years (see Section 4, Biological Resources for more information). Refer to Project plans contained within **Attachment A** for details.

Approximately 3-4 crew members will be required to complete construction of the Project, and fewer than 10 loads of material (plywood, logs, soil, sandbags, plants, mulch) would be delivered to the work site during the construction period, which is expected to occur over a two-week period.

6. Project Objectives

The Project is intended to prevent the collapse of an existing deck into Doolin Creek, which would negatively impact fish and wildlife resources and require more significant repairs and remediation. The Project would provide long-term stabilization of an actively eroding creek bank, reducing sediment delivery that could impair valuable fish habitat in Doolin Creek and potentially impact habitat downstream in the Russian River. The Russian River is currently listed on the Clean Water Act 303(d) List of Impaired Water Bodies due to temperature and sediment.

7. Project Timing

Construction of the bank repair is planned for the winter/spring of 2019, as soon as permits have been approved. Bank repair work is proposed for construction during the dry season (summer/fall) 2019.

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 Resources	☐ 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: Based on the review of the proposed Project, Site and surrounding areas, potential impacts have been identified for the following resource sections: 4 (Biological Resources); 5 (Cultural Resources); 7 (Geology/Soils); 9 (Hazards & Hazardous Materials), 10 (Hydrology and Water Quality); 18 (Tribal Cultural Resources), and 20 (Wildfire). Mitigation measures identified within each section and in the Mitigation Monitoring and Reporting Program (Section VII) would reduce all impacts to a less than significant level.

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 revisions in the Project have been made by or agreed to by the Project proponent. 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

April 12, 2019

Date

Michelle Irace, Planning Manager
Planning & Community Development Department
City of Ukiah
mirace@cityofukiah.com

V. EVALUATION OF ENVIRONMENTAL IMPACTS

The purpose of this Initial Study/Negative Declaration (ISMND) 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: Project construction will be performed on the north bank of Doolin Creek in the rear yard of an existing residential property. The subject property is approximately 200 feet from the nearest public road, Helen Avenue, accessed by a shared driveway. Between the subject property and Helen Avenue is one residential lot developed with two homes. The Project Site is covered by a dense evergreen canopy of mature bay trees with an understory of non-native blackberry. Surrounding land uses on all sides are low-density residential uses. The nearest building to the Project Site is a residence located approximately 35 feet to the east.

Discussion: (a) No impact. The Project Site is located in a canyon on the edge of a residential neighborhood, set back from a public road under the evergreen riparian canopy of Doolin Creek. There are no scenic vistas near the Project Site. Due to the secluded location and dense tree canopy surrounding the Project site, the Site is not visible from a public road or other public vistas.

(b) No impact. The Project Site is not located within an area afforded aesthetic or scenic status by local plans or ordinances and is not located in the vicinity of a State-designated scenic highway.

(c) No impact. The area proposed for bank repair is out of direct view from adjacent residences and can be seen only from within the creek corridor. The Project consists of short-term construction, after which the eroded bank will be repaired and vegetated with native plants. Revegetation of the denuded streambank will improve the visual quality of the Project Site. The site is zoned Single-Family Residential (R1), which does not contain regulations for streambank repair. In addition, the Ukiah City Code is silent on streambank repair, but the applicant is seeking a Site Development Permit concurrently, in accordance with the Ukiah City Code.

(d) No impact. The proposed Project does not include the installation of new lighting; therefore, there would be no new light or glare.

Potential Impacts: The Project will have no impact on visual resources.

Mitigation Measure(s): None required.

2. Agriculture and Forestry Resources

AGRICULTURE AND FORESTRY RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.				
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: The subject property consists of a City lot of approximately 6,200 square feet in size situated on the north side of Doolin Creek. Vegetation within the Project Site consists predominantly of mature bay trees and non-native blackberry. The subject property is situated at the foot of the Western Hills. The Ukiah General Plan land use designation of the parcel is Low-Density Residential and the property is zoned Single-Family Residential (R-1). The properties to the north and east consist of single-family residential development zoned R-1. Properties to the south and west include larger, low-density parcels within the unincorporated County of Mendocino.

Discussion: (a) – (e) No impact. The property is not agriculturally zoned and not under Williamson Act contract. Adjacent private lands are not agriculturally zoned or under Williamson Act contract. The Project will not cause significant adverse conflicts with lands zoned for agriculture or subject to a Williamson Act contract, since there are no such lands abutting the Project Site. Furthermore, the Project will not involve changes in the environment that will result

in the conversion of farmland to non-agricultural land use. The Project will not result in the removal of commercial hardwood species and does not convert forestlands to non-forestlands.

Potential Impacts: No impacts to local or area-wide agricultural lands or forestlands will result from the Project.

Mitigation Measure(s): None required.

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 a criteria pollutants for which the Mendocino County Air Quality Management District (MCAQMD) has 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 Site is situated at the foot of the Western Hills of the Ukiah Valley at an elevation of approximately 680 feet above mean sea level (AMSL). The Project Site is surrounded on all sides by low-density residential development. The nearest residential receptor is a single-family residence located approximately 35 feet east of the Project Site. Nokomis Elementary School is the second nearest, located over 1,000 feet from the Project Site.

The Project Site is located within the North Coast Air Basin (NCAB), which 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 Ukiah, 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 three rules related to the control of fugitive dust:

- Rule 1-400(a) prohibits activities that "cause injury, detriment, nuisance or annoyance to a considerable number of persons...or which endanger the...health or safety of...the public…"

- Rule 1-430(a) prohibits activities which "...may allow unnecessary amounts of particulate matter to become airborne..."

- Rule 1-430(b) requires that "...reasonable precautions shall be taken to prevent particulate matter from becoming airborne…"

The MCAQMD provides the following significance thresholds for construction emissions within the NCAB:

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) No impact. The Project consists of a short-term construction project using only hand tools. No heavy equipment with internal combustion engines (ICE) is proposed for Project construction. The Project would not conflict with or obstruct implementation of any applicable air quality management plans due to the lack of emissions generated by manual construction methods.

(b) Less than significant impact. Soils in the construction zone are expected to be moist due to their location within the creek bank. The repaired bank will be stabilized with jute netting, erosion control seeding and mulch. Only hand tools will be used (refer to Section 4, Biological Resources, below). For these reasons, fugitive dust is not expected to occur during or following Project construction. Project construction will generate insignificant concentrations of NOx, as there will be no heavy equipment used for construction activities that operate by ICE. Gasoline-powered equipment such as chain saws will be used for a short period during construction activities. The Project would therefore not result in a cumulatively considerable net increase of any criteria pollutants.

(c) No impact. The nearest sensitive receptors are adjacent residences (within 35 feet) and Nokomis Elementary School, located over 1,000 feet from the Project Site. There are no hospitals, senior housing, convalescent facilities or other sensitive receptors located within 1000 feet of the Project Site. As stated in (b) above, construction-generated emissions will be negligible.

(d) No impact. Project construction will not generate objectionable odors or emissions that could adversely affect a substantial number of people, during or after construction.

Potential Impacts: Construction of the Project will not involve the use of heavy equipment that would result in significant air quality impacts, nor would it expose sensitive receptors to air pollutants; impacts would be less than significant.

Mitigation Measure(s): None required.

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?	☐	☐	☐	☒
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: The Project Site consists of a section of eroded creek bank beneath evergreen riparian canopy on a residential City lot situated on the north side of Doolin Creek. The lot is developed with a single-family residence with a rear deck that extends to the creek bank. Doolin Creek is a perennial tributary to the Russian River, which flows to the Pacific Ocean. Doolin Creek drains a watershed of approximately 2.63 square miles and supports the anadromous Steelhead trout (Oncorhynchus mykiss), a threatened salmonid species. The watershed is primarily privately owned. Doolin Creek flows along the southerly border of the subject property to the Russian River, approximately one mile to the east. The creek measures 15± feet wide in the vicinity of the proposed repair work. The low-flow channel measures 4± feet wide. The eroded bank beneath the deck has been covered with plastic secured with boulders to protect the exposed bank from further erosion until repairs can be initiated. Vegetation on the Project Site is comprised primarily of mature bay trees with an understory of predominantly non-native blackberry. The proposed work area is situated immediately adjacent to the residence and directly below the existing deck. The deck supports were originally constructed on the bank in 2006, however, due to significant bank erosion, are now in the channel.

Discussion: (a) Less than significant impact with mitigation. A Biological Resources Assessment (Assessment) of the Project Site was prepared by Lucy Macmillan (December 2018). The purpose of the Assessment is to identify special-status plant and wildlife species and sensitive habitats that have the potential to occur on or in the vicinity of the Project Site to determine if the proposed Project could potentially affect these resources. The Assessment is provided as **Attachment B**.

Special-status plants and animals are legally protected under the State and Federal Endangered Species Acts or other regulations, and species that are considered rare by the scientific community. Special status species include those plants and wildlife species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing under the federal Endangered Species Act (ESA) or California Endangered Species Act (CESA). These acts afford protection to both listed and proposed species. In addition, CDFW Species of Special Concern, which are species that face extirpation in California if current population and habitat trends continue, U.S. Fish and Wildlife Service (USFWS) Birds of Conservation Concern, and CDFW special status invertebrates are all considered special status species. Although CDFW Species of Special Concern generally have no special legal status, they are given special consideration under CEQA. In addition to regulations for special status species, most birds in the United States, including non-status species, are protected by the Migratory Bird Treaty Act of 1918. Under this legislation, destroying active nests, eggs, and young is illegal.

USFWS species lists were reviewed for federally listed species, including Proposed and Candidate species. CDFW species lists for State of California listed species were also reviewed. Special-status species also include those with California Rare Plant Rank (CRPR) 1A (Plants Presumed Extinct in California), CRPR 1B (Plants Rare, Threatened, or Endangered in California and Elsewhere), or CRPR 2 (Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere), as indicated by the California Native Plant Society (CNPS) Inventory. Impacts to these species must be reviewed under the provisions of the CEQA Guidelines.

Rare plants are defined to include: (1) all plants that are federally- or state-listed as rare, threatened, or endangered, or a candidate for listing; (2) all plants ranked by the California Natural Diversity Database (CNDDB) and the CNPS as CRPR 1,2, 3, or 4. Locally rare species, if present, were also considered in the Assessment.

Plants. A database query of the CNDDB and the CNPS Electronic Inventory was conducted to include a 5-mile radius of the Project Site to assess the potential for sensitive communities and/or special-status plant species to occur in the Project Area. The databases identified the following seven plant species: Baker's meadowfoam, Baker's navarretia, Burke's goldfields, Mendocino bush-mallow, North Coast semaphore grass, Raiche's Manzanita and Toren's grimmia.

According to the Assessment, the area to be repaired has significantly eroded and the original topsoil and its potential seedbank is no longer present. At the time of the November 2018 site reconnaissance performed for the Assessment, no vegetation was growing within the proposed work area. The area was covered in plastic and the original topsoil had washed away. As a result, the Assessment concludes that there is no potential for special-status plant species to be present within the proposed repair area.

Based on the findings of the Assessment, the proposed Project will have a less than significant impact on special-status plant species.

Wildlife. As part of the Assessment, a nine-quadrangle search of the CNDDB was performed in order to identify wildlife species and habitats with the potential to occur at or in the vicinity of the Project Site. Species recorded as occurring within a five-mile radius included: Foothill yellow-legged frog (FYLF), North American porcupine, Red-bellied newt and Western pond turtle.

On November 8, 2018 a reconnaissance level survey of the Project Site was conducted. The focus of the survey was to identify whether suitable habitat elements for each of these special-status species were present, whether the Project would have the potential to impact any of these species and/or their habitats, directly or indirectly, on-site or off-site.

Based on the biological communities present on the Project Site and the species identified in the CNDDB nine-quadrangle search, it was determined that the Site has the potential to provide potential habitat for nesting birds, Steelhead trout, Foothill yellow-legged frog, Red-bellied newt and Western pond turtle. In addition, Chinook salmon, Russian River tule perch, Pacific lamprey, and Western pearlshell mussel potentially occur in the Russian River approximately one-mile downstream of the Project Site. The remaining species documented in the area are not likely to occur due to the absence of suitable habitat.

Special-status wildlife species that may potentially occur on the Project Site are described below.

Nesting Birds

The trees on and adjacent to the Project Site provide potential nesting habitat for a variety of nesting birds and raptors. Birds and raptors are protected under the federal Migratory Bird Treaty Act. Their nest, eggs, and young are also protected under California Fish and Wildlife Code §3503, §3503.5, and §3800. In addition, raptors such as the White-tailed kite (*Elanus leucurus*) are "fully protected" under Fish and Wildlife Code §3511. Fully protected raptors cannot be taken

or possessed (kept in captivity) at any time. Nesting season for birds in California generally occurs between February 1st and August 1st[1].

Construction activities associated with the proposed Project have the potential to impact nesting birds. In order to reduce potential impacts a breeding bird survey will be conducted prior to construction to determine if any birds are nesting in trees in or adjacent to the proposed work area. If active nests are found close enough to the study to affect breeding success, a qualified biologist will establish an appropriate exclusion zone around the nest. If the nest is too close to the proposed work area, work may be delayed until the young have fledged. Compliance with the Lake and Streambed Alteration Agreement (LSAA) issued by CDFW will further ensure that nesting birds and other special-status wildlife will be protected during Project construction. With implementation of Mitigation Measures BIO-1 and BIO-2 impacts to nesting birds would be less than significant.

Reptiles and Amphibians

Western pond turtle (Emys marmorata)

The Western pond turtle (aka Pacific pond turtle) is the only native freshwater turtle in California. The species is considered a Species of Special Concern by CDFW. This turtle is common in suitable aquatic habitat throughout California. Western pond turtle inhabits annual and perennial aquatic habitats including man-made habitats, such as coastal lagoons, lakes, ponds, marshes, rivers, and streams from sea level to 5,500 feet in elevation. This species requires low-flowing or stagnant freshwater aquatic habitat with suitable basking structures, including rocks, logs, algal mats, mud banks and sand. To escape periods of high water flow, high salinity, or prolonged dry conditions, Western pond turtle may move upstream and/or take refuge in vegetated, upland habitat for up to four months, though aquatic habitat is preferred. Western pond turtle nests from late April through July. This species requires open, dry upland habitat with friable soils for nesting and prefer to nest on unshaded slopes within 5 to 100 meters of suitable aquatic habitat. Females venture from water for several hours in the late afternoon or evening during the nesting season to excavate a nest, lay eggs, and bury the eggs to incubate and protect them. Hatchlings generally emerge in late fall but may overwinter in the nest and emerge in early spring of the following year. Occurrences of Western pond turtle are documented within one mile of the Project Site and may frequent Doolin Creek.

Foothill yellow-legged frog (Rana boylii)

Doolin Creek provides potential habitat for Foothill yellow-legged frog (FYLF). FYLF is a State Candidate Threatened species and a Species of Special Concern. This species occurs in the Coast Ranges from northern California to Los Angeles and is found in or near creeks and streams with rocky substrates in a variety of habitats. This species is infrequently found away from a permanent water source, even on rainy nights. There are at least 12 recorded occurrences of FYLF within five miles of the Project Site.

Red-bellied Newt (Taricha rivularis)

Doolin Creek provides potential habitat for Red-bellied newt, which is listed as a Species of Special Concern by CDFW. This species is found in coastal drainages from Humboldt County to Sonoma County and inland to Lake County. This species lives in terrestrial habitats and typically breeds in streams with moderate flow and clean rocky substrate.

[1] Nesting season is variable, depending on the species. Per Daniel Harrington of CDFW, the LSAA for the Project will be conditioned on a nesting season of February 15 – September 1, which covers a majority of nesting.

Construction activities associated with the proposed Project have the potential to significantly impact the Western pond turtle, FYLF and Red-bellied newt. CDFW requires that FYLF surveys be conducted prior to commencing work. Recommended mitigation includes isolating a dry work site; having a qualified biologist present when preparing the work site and able to re-locate frogs or turtles to a safe location; training construction crew members to the sensitivity of these species; avoiding work during rain events and during sunrise and sunset periods; and checking the site daily before work begins to ensure there are no special-status species in the work zone. Compliance with Mitigation Measures BIO-3 through BIO-6 will reduce impacts to special-status reptiles and amphibians to a less than significant level.

Fish and Mussels

Steelhead Trout (Oncorhynchus mykiss)
Steelhead trout are part of the Central California Coast ESU (evolutionarily significant unit); this species is federally listed as threatened. Steelhead are known to occur in Doolin Creek. They generally prefer fast water in small-to-large mainstem rivers, and medium-to-large tributaries. In streams with steep gradient and large substrate, they spawn between these steep areas, where the water is flatter and the substrate is small enough to dig into. Steelhead trout may occur in Doolin Creek within the Project vicinity and is known to occur in the Russian River approximately one mile east of the Project Site.

Chinook salmon (Oncorhynchus tshawytscha)
Chinook salmon of the California Coast ESU is a federally threatened species that is found in rivers and streams south of the Klamath River to the Russian River. Chinook usually spawn in large deep pools, typically with bedrock bottoms and moderate creek velocities. Chinook salmon is known to occur in the Russian River approximately one mile east of the Project Site.

Russian River tule perch (Hysterocarpus traskii traskii)
The Russian River tule perch is listed a Species of Special Concern by CDFW. This species is known to occur in low elevations streams of the Russian River system and could potentially occur in Doolin Creek when water levels are deep enough to support fish species.

Pacific Lamprey (Lampreta tridenta)
The Pacific lamprey is listed as a Species of Special Concern by CDFW. Pacific lamprey are anadromous with a free-swimming parasitic or predatory marine adult stage, where they may feed on ocean fish such as salmon and flatfish, and a freshwater immature stage that is a benthic filter feeder, feeding on benthic detritus. Spawning takes place in higher gradient, gravel/cobble bed, and cool water streams. The Russian River, located approximately one-mile downstream of the Project Site, provides aquatic habitat conditions that are conducive to use by Pacific Lamprey.

Western pearlshell (Margaritifera falcate)
Western pearlshell mussel does not have a legal status under federal or California law. It is not considered a species of special concern by CDFW but it is identified as an S1 to S2 rank between “imperiled” and “critical imperiled” on the CNDDB. This bivalve occurs from Alaska south to California and inhabits the substrate of perennial creeks and rivers. Western pearlshell mussel may occur in the Russian River, which Doolin Creek is a tributary to, where substrate is suitable.

Construction activities associated with the proposed Project have the potential to significantly impact the above-listed special-status fish and mussels. Construction activities associated with bank repair are proposed to occur in a tributary (Doolin Creek) to the main stem channel (Russian River) during the dry season. While steelhead have the potential to occur in Doolin Creek, they are not expected to be present in the creek when the majority of the channel is dry, making direct

impacts unlikely. Indirect impacts to steelhead, Chinook and tule perch are more probable. Construction activities occurring between June 15 and October 15, or when the creek is mostly dry, will reduce direct impacts to steelhead. Soil and other construction-generated pollutants have the potential to indirectly impact special-status fish and the Western pearlshell mussel if they enter the stream. The Project is intended to remedy an actively eroding stream bank, and as such, completion of the bank repair will have a beneficial impact on special-status species by reducing sediment delivery from the Site. Compliance with Mitigation Measures BIO-1, BIO-4 and BIO-7 through BIO-10 will reduce project-related impacts to special-status fish and mussels a less than significant level.

The Project will require a Lake and Streambed Alteration Agreement (LSAA) from CDFW, a Section 401 permit from the RWQCB and a Section 404 permit from the U.S. Army Corps of Engineers (USACE). CDFW and RWQCB staff assisted the applicant with selecting an appropriate design, focusing on long-term durability of the structure and the prevention of impacts to other parts of the creek. These agencies have been consulted and their recommendations incorporated into Mitigation Measures BIO-2, BIO-3, BIO-4, BIO-7, BIO-9 and BIO-10. Mitigation Measure BIO-1 requires the Project to secure and comply with permits from these agencies.

(b) Less than significant with mitigation. The Project Site is located within the riparian corridor of Doolin Creek, a perennial stream that drains to the Russian River. A mature riparian canopy consists predominantly of California bay with an understory dominated with non-native blackberry. The channel bottom is cobble and rock-lined. Although the Project is located within a riparian corridor, as described in (a) above, the work area has been denuded of plants and a seedbank due to excessive bank erosion. The work area is temporarily covered with plastic to protect the exposed soil from further erosion. Because erosion has caused denudation of the bank, the proposed Project will not involve the removal of riparian vegetation. The riparian habitat on the Project Site will be enhanced as a result of the Project due to stabilization of an actively eroding bank and the planting of native riparian plants that will provide habitat for insects and wildlife.

Project plans specify willows to anchor the repaired bank, however in this understory location, willows may not receive enough sunlight to achieve the 85 percent survival rate. Species that may be better suited to the shaded site might include C*ornus sericea ssp. Occidentalis* (red stem dogwood), *Philadelphus lewisii* (California mock orange), *Symphoricarpos albus* (snowberry) and *Vitis californica* (California wild grape). Proposed species shall be reviewed and approved by CDFW and/or the Community Development Director. Mitigation Measure BIO-11 requires the Project to comply with the Project's proposed revegetation monitoring activities described on the Project plans to ensure a survival rate of 85 percent within five years of planting. BIO-10 specifies that native, locally appropriate plant materials shall be installed, further protecting the riparian community at the Site. BIO-1 requires that the monitoring reports provided to CDFW, RWQCB and USACE would also be provided to the City.

The proposed Project does not conflict with the Doolin Creek - A Vision for Restoration and Enhancement document (City of Ukiah, 2015), as the document focuses on enhancing reaches 3,200± downstream of the subject reach.

(c) No impact. A wetland assessment conducted as part of the Biological Resources Assessment found that the Site is not a wetland, as no hydrophytic vegetation was present in or adjacent to the creek at the Project Site. However, due to the presence of a defined ordinary high water mark, Doolin Creek is classified as Waters of the State, and the Project is subject to the approval of a Section 404 General Permit issued by the USACE. The Project will have no impact on federally impacted wetlands because no wetlands will be disturbed as a result of the Project.

(d) Less than significant impact with mitigation. The Site is located approximately one-mile upstream of the Russian River. Steelhead trout (*Oncorhynchus mykiss*) are known to occur in Doolin Creek. Steelhead, Chinook salmon Russian River tule perch, and Pacific lamprey are known to occur within the Russian River system. Doolin Creek is a tributary to the Russian River. The proposed Project involves the repair of an eroded creek bank and will not introduce a barrier to fish passage for migratory fish. Wildlife corridors could be significantly affected by Project construction if it were to occur during fish migration. As required by CDFW, the Project must be constructed between June 15 and October 15, when the creek is mostly dry. With the incorporation of Mitigation Measure BIO-7, the Project will not create a barrier to migration through the Project area.

There are no native wildlife nursery sites located within or near the Project Site that could be impacted by the Project. There was no evidence reported in the Assessment of established terrestrial wildlife corridors on the Project Site. For these reasons, the proposed Project will have no impact upon the movement of native resident or migratory fish or established native resident or migratory wildlife corridors.

(e) – (f) No impact. The Project does not conflict with any local policies or ordinances related to the protection of biological resources, nor does it conflict with any adopted local, regional or state natural community or habitat conservation plans.

Potential Impacts: Construction of the Project has the potential to directly or indirectly impact nesting birds, Western pond turtle (*Emys marmorata*), Foothill yellow-legged frog (*Rana boylii*), Red-bellied newt (*Taricha rivularis*), Steelhead trout (*Oncorhynchus mykiss*), Chinook salmon (*Oncorhynchus tshawytscha*), Russian River tule perch (*Hysterocarpus traskii traskii*), Pacific Lamprey (*Lampreta tridenta*) and Western pearlshell (*Margaritifera falcate*). Construction of the Project has the potential to impact migrating fish. With implementation of Mitigation Measures BIO-1 through BIO-11 impacts would be less than significant.

Mitigation Measure(s):

BIO-1 This permit shall be subject to the securing of, and compliance with, all necessary permits for the proposed Project from all agencies having jurisdiction, including the U.S. Army Corps of Engineers, the Regional Water Quality Control Board and the California Department of Fish and Wildlife. The applicant shall copy the City of Ukiah Community Development Department on all reports, including maintenance and monitoring of revegetation that are provided to jurisdictional agencies.

BIO-2 If project activities occur during the breeding season for nesting birds (February 15 through September 1), a qualified biologist shall conduct a breeding bird survey no more than 14 days prior to project activities to determine if any birds are nesting in trees adjacent to the proposed work site. If active nests are found close enough to the work site to affect breeding success, the biologist will establish an appropriate exclusion zone around the nest. This exclusion zone may be modified depending upon the species, nest location, and existing visual buffers. If the nest is too close to the proposed work site, work may be delayed until the young have fledged. If initial work is delayed or there is a break in project activities of greater than 14 days within the bird-nesting season, then a follow-up nesting bird survey shall be performed to ensure that no nests have been established in the interim.

BIO-3 Foothill yellow-legged frog (FYLF) surveys shall be conducted as directed by CDFW. Consultation with CDFW shall be conducted should eggs or frogs be detected.

BIO-4 The work site shall be isolated from water.

a. The isolated site shall be cleared for fish and frogs.

b. To prevent sediment from entering the creek, temporary plywood with sandbags or other method acceptable to CDFW shall be installed to prevent water from entering the work area. Materials used to create the isolated work site shall be removed after creek bank repair work is completed.

c. A qualified wildlife biologist shall be present during establishment of a dry work zone. If any federally or state listed special-status species are observed prior to establishing the isolated work site, the animal will be allowed to move away from the work site on its own accord. If Western pond turtle or red-bellied newt are observed, they may be moved by the biologist to a safe location up or downstream away from the work site.

d. The work site shall be checked daily prior to the start of work to ensure that no special-status species are within work site.

BIO-5 Prior to construction, all workers on the crew shall be trained by a qualified biologist as to the sensitivity of the FYLF, red-bellied newt and Western pond turtle and other special-status species potentially occurring on the property.

BIO-6 Work shall not be conducted at the areas proposed for bank repair any time 30 minutes before sunrise or sunset.

BIO-7 All work shall be conducted between June 15 and October 15 unless otherwise allowed by CDFW.

BIO-8 No construction activities shall occur during rain events, defined as ¼ inch of rain falling within a 24-hour period. Construction activities may resume 24 hours after the end of the rain event.

BIO-9 No heavy equipment shall be allowed in the channel. Only hand tools shall be used for project construction.

BIO-10 Best management practices shall be implemented during construction to prevent pollutants from entering the stream.

a. No soil, turbid water, oil, grease or other construction-generated pollutants shall be allowed to enter the stream.

b. Silt fencing and/or fiber rolls shall be utilized as necessary to minimize or avoid potential erosion into the creek channel.

c. Any soil removed from the work site shall be placed in an upland location outside of the work area and protected to prevent loose soil from entering the work area.

d. For erosion protection following construction, all disturbed slopes shall be seeded with a native, locally appropriate seed mix and mulched. Species shall be approved by the Community Development Department and/or CDFW.

a. Disturbed banks shall be planted with woody species for bank stabilization. California native, drought-tolerant and locally appropriate plant materials suited for a shaded environmental shall be planted. Species to be used for revegetation shall

be reviewed and approved by DCFW and/or the Community Development Director.

BIO-11: Vegetation maintenance and monitoring shall include:

a. Installation of an irrigation system to irrigate revegetated areas at a regular frequency and a monitoring period of five years.

b. Vegetation must be able to survive the last two years of the five-year monitoring period without irrigation.

c. A survival rate of 85 percent after five years is required. If the survival rate is not achieved at the end of the monitoring period, all dead or dying trees shall be replaced.

d. Any replaced vegetation shall be monitored for a five-year period until the 85 percent survival rate is achieved.

e. Annual reports summarizing vegetation status and photographs of the site shall be submitted to the RWQCB and CDFW, and a final report would be submitted when the Project is completed. The applicant shall copy the City of Ukiah Community Development Department on all reports.

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.

Environmental Setting: The Project Site consists of an approximately 75-foot section of creek bank under evergreen riparian canopy on the north side of Doolin Creek. Doolin Creek is a perennial stream that flows along the southerly border of the subject property to the Russian River, approximately 175 miles to the east. Vegetation on the Project Site is comprised primarily of mature bay trees with an understory of predominantly non-native blackberry.

Discussion: **(a) No impact.** The Project Site consists of a creek bank and adjacent single-family residence. There are no historic structures on the property, and no structures will be disturbed by the creek repair work.

(b) – (c) Less than significant with mitigation. 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. Sites next to streams may

be surface deposits, full depth of stream bank, or layers buried by overbank due to natural fluvial deposition as streams continually rework their corridors over time. Accordingly, it is concluded that the likelihood of a prehistoric site being located in the vicinity of the proposed Project is high. Ground disturbance has the potential to impact cultural sites, including the natural processes of streambank erosion (Van Bueren, 2018).

Construction activities associated with the Project will use soil, vegetation and structural components to stabilize the bank. No soil will be removed from the Site. The proposed Project is intended to protect the bank from further erosion. By stabilizing the bank, the Project may be preserving cultural resources stored within the bank of the creek.

Due to the earthwork associated with the Project and potential for cultural resources in the area, accidental discovery of cultural resources May occur during construction. If a discovery occurs, Mitigation Measure CUL-1 would require work to stop, and a qualified archaeologist to be hired to perform a site investigation and to develop a mitigation program if appropriate.

Potential Impacts: No impacts to known cultural resources are anticipated as a result of the Project. However, to ensure that undiscovered cultural resources are not impacted during Project construction, Mitigation Measure CUL-1 would halt construction in the event of an accidental discovery, and a qualified archaeologist would perform a site reconnaissance to determine appropriate mitigation. Implementation of this mitigation measure will reduce potential impacts on cultural resources to a less than significant level.

Mitigation Measure:

CUL-1 If, during site preparation or construction activities, any historic or prehistoric cultural resources are unearthed and discovered, all work shall immediately be halted, and the City notified of the discovery. The applicant shall be required to fund the hiring of a qualified professional archaeologist to perform a field reconnaissance and to develop a precise mitigation program if deemed necessary by the City of Ukiah Community Development Director.

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 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: The Project Site consists of a section of creek bank under evergreen riparian canopy on the north side of Doolin Creek. Project construction will involve the manual installation of rock, timbers and plant materials to anchor the eroding bank.

Discussion: **(a) No impact.** Due to the sensitive environment at the Project Site, construction of the Project will utilize low-impact tools. Construction will be performed in approximately two weeks. No significant electrical power will be required for construction of the Project.

(b) No impact. Construction of the Project will not conflict with a state or local plan for renewable energy or energy efficiency.

Potential impacts: The Project would have no impact on energy.

Mitigation Measure(s): 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 Maacama Fault, which traverses the valley in a generally northwest-southeast direction east of the Project area. Based on California Geological Survey maps, the Project Site is not located within the Alquist Priolo Fault Zone or in a landslide or liquefaction zone. The nearest fault zone is located approximately 2.3 miles east of the Project Site. The Project Site is characterized by gentle slopes except for the steep bank of Doolin Creek. The stream channel directly upstream and downstream of the eroded bank at the Project Site is narrow and incised, with steep banks, some of which are stabilized with retaining walls.

Discussion: (a) No impact. According to published maps prepared by the California Geological Survey, the Project Site is not located within a known earthquake fault zone, landslide zone or liquefaction zone. There are no habitable structures proposed as part of the Project. Project related activities are therefore unlikely to expose people or structures to substantial adverse effects resulting to seismic or mass wasting events.

(b) Less than significant with mitigation. The proposed Project is being requested as a result of excessive soil loss due to erosion of the creek bank. According to RWQCB staff, this is likely the result of upstream construction of a concrete wall in the creek that caused flows to deflect into the subject bank. The proposed bank repair is intended to protect the eroded bank from further erosion in order to protect the deck foundations. The Project, if not carefully designed and constructed, has the potential to cause additional erosion due to its location within the stream channel and exposure to direct fluvial action. CDFW and RWQCB staff assisted the applicant with selecting an appropriate design, focusing on long-term durability of the structure and the prevention of impacts to other parts of the creek. Correspondence indicates that both agencies are reasonably confident that the Project will have a low likelihood of downstream effects. As described in detail in Section 4, Biological Resources, heavy equipment will not be used within or directly adjacent to the creek. Work within the bed and bank will be performed with hand tools. Incorporation of Mitigation Measures BIO-1, BIO-7, BIO-8, BIO-9, BIO-10, BIO-11, GEO-1 and GEO-2 will mitigate soil impacts to a less than significant level. Soil erosion will not be significant if construction is performed and timed according to the aforementioned mitigation measures.

(c) Less than significant with mitigation. The Project Site is not identified as containing landslides or other unstable geologic conditions other than erodible soils. The proposed Project would be located on soil that is unstable due to its location within an active stream channel. As stated in (b) above, the Project is intended to stabilize an actively eroding stream bank in order to protect adjacent structures from further soil loss. Due to the naturally unstable location of the Project within a stream channel, the Project has the potential to increase instability if not adequately designed and properly constructed. Mitigation Measures BIO-1, BIO-7, BIO-8, BIO-9, BIO-10, BIO-11, GEO-1 and GEO-2 will reduce impacts to a less than significant level.

(d) and (e) No impact. The Project does not involve the development of structures or on-site waste disposal systems. Therefore, impacts related to expansive soils and percolation capacity are not relevant to the Project.

(f) Less than significant impact. Proposed repair work will result in minor disturbance to site soils. However, there are no known unique paleontological resources or geologic features at the Project Site.

Potential Impacts: The Project has the potential to cause significant soil erosion and bank subsidence or collapse unless appropriate erosion control measures are implemented. Implementation of Mitigation Measures BIO-1, BIO-7, BIO-8, BIO-9, BIO-10, BIO-11, GEO-1 and GEO-2 will reduce these impacts to a less than significant level.

Mitigation Measures:

GEO-1 The Project shall comply with the design standards outlined in Section 9703 of the Ukiah City Code, including:

a) Erosion and sediment control practices shall meet the design criteria set forth in the most recent version of the California Stormwater Quality Association best management practice handbook, and shall be adequate to prevent transportation of sediment from the Site to any off site area to the satisfaction of the City engineer;
b) Soil disturbance work shall be conducted during dry weather whenever possible;
c) Soil stabilization shall be completed within five (5) days of clearing or inactivity in construction;
d) Projects shall be designed to avoid disturbing land in sensitive areas and to preserve existing vegetation wherever possible;
e) Major grading operations shall be scheduled during dry months when practical, and shall allow adequate time before rainfall begins to stabilize the soil with erosion control materials;
f) Seeding and mulching shall be done as soon as grading is complete;
g) Soil stockpiles must be stabilized and/or securely covered at the end of each workday;
h) Linear sediment barriers shall be placed below the toe of exposed and erodible slopes, down slope of exposed soil areas, around soil stockpiles, and at other appropriate locations along the site perimeter.

GEO-2 The installation of erosion and sediment control measures, such as fiber rolls, shall be installed downslope of disturbed areas no later than October 15th or prior to the first rain of the season. Fiber rolls shall be composed of materials that will naturally decompose in the environment and will not pose a risk to wildlife. Temporary erosion control measures, such as silt fencing shall be removed when disturbed soils have stabilized.

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 proposed Project would significantly impact greenhouse gas (GHG) emissions if it were to generate substantial GHG emissions exceeding the CEQA thresholds of significance adopted by the Mendocino County Air Quality Management District (MCAQMD) or conflict with an adopted plan, policy or regulation intended to reduce greenhouse gas emissions.

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.[2]

Thresholds: The MCAQMD adopted Air Quality CEQA thresholds of significance for use in determining whether GHG emissions generated by a project are considered significant. Thresholds are provided for both construction-related and operational-related activities. For GHGs resulting from projects that are not stationary sources, there is no construction related threshold. The operational threshold is either 1,100 metric tons per year (MT/yr) of CO_2e, or 4.6 MT CO_2e/SP/yr (residents + employees). The annual emissions threshold of 1,100 MT of CO_2e per year applies best to the proposed Project as Mendocino County does not have a qualified GHG reduction plan and the Project is not a high-density project whose impacts would be more appropriately quantified by a service population threshold to reflect the per-person emission efficiency. The Association of Environmental Professionals (AEP) white paper, *Beyond Newhall and 2020*, recommends that for projects with a horizon of 2020 or earlier, a threshold based on meeting AB 32 targets should be used (AEP 2016). Thus, projects with horizon years of 2020 or earlier, and emissions below the MCAQMD threshold are not expected to require GHG mitigation for state mandates to be achieved. The Project would be constructed in 2019; therefore, its horizon year is 2020.

Discussion: (a) – (b) Less than significant. Construction of the Project will not involve the use of heavy equipment, or increase traffic volumes. Project construction will be short-term (approximately two weeks) and will involve hand tools only. Gasoline-powered tools such as chain saws may be used to cut logs for the crib wall, but the short-term duration of use would result in insignificant GHG emissions.

Potential Impacts: Construction of the Project will not involve the use of heavy equipment, or

[2] Illingworth & Rodkin, August 2016

increase traffic volumes that would result in significant GHG impacts; impacts would be less than significant.

Mitigation Measure(s): None required.

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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
h) 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: The Project Site consists of a small section of creek bank under evergreen riparian canopy on the north side of Doolin Creek. Project construction will involve the manual installation of rock, timbers and plant materials to anchor the eroding bank.

The Project Site is located in western Ukiah, approximately 3,000 feet west of the Ukiah Municipal Airport. The nearest sensitive receptors are adjacent residences (within 35 feet) and Nokomis Elementary School, located over 1,000 feet from the Project Site.

Discussion: (a)-(b) Less than significant with mitigation. The Project does not involve the routine transport, use, storage or disposal of hazardous materials. However, the Project may use certain tools such as chainsaws that would involve small amounts of gasoline and oil equivalent to household use. Due to the sensitivity of the Site within a stream channel, and the significant impact that could occur in the event of an accidental spill, Mitigation Measure HAZ-1 would ensure the proper use of such materials. Implementation of HAZ-1 would reduce hazards to the public or environment due to an accidental release of hazardous materials to a less than significant level.

(c) No impact. The Project is located within 0.25 miles of Nokomis Elementary School; however, would not generate hazardous emissions, nor handle hazardous materials or waste. The Project would have no impact on the nearby elementary school.

(d) No impact. The California Environmental Protection Agency (CALEPA) has the responsibility for compiling information about sites that may contain hazardous materials, such as hazardous waste facilities, solid waste facilities where hazardous materials have been reported, leaking underground storage tanks and other sites where hazardous materials have been detected. Hazardous materials include all flammable, reactive, corrosive, or toxic substances that pose potential harm to the public or environment. The following databases compiled pursuant to Government Code §65962.5 were checked for known hazardous materials contamination within 2,000 feet of the Project Site:

- State Water Resources Control Board GeoTracker database
- Department of Toxic Substances Control EnviroStor database
- CalEPA Cortese List

There was one site identified within the vicinity of the Project Site. The site is a closed case involving a 3,000-gallon underground storage tank (UST) removed from the Nokomis School property in 1990, at which time piping from the UST was found to be leaking diesel. The site is located over 1,000 feet from the Project Site. Contaminated soils were removed and the site was monitored for soil and water contamination. On December 16, 2010, the RWQCB found that the investigation and corrective action carried out at the site were in compliance with the Health and Safety Code and that no further action related to the petroleum release was required. Due to the distance of the site to the Project Site, the findings of the RWQCB and the fact that the case has been closed for 8 years, the site is unlikely to have impacted the Project Site. The Project not create a significant hazard to the public or environment as a result of its location.

(e) and (f) No impact. The Project Site is located approximately 3,000 feet west of the Ukiah Municipal Airport in Zone D. According to the Mendocino County Airport Comprehensive Land Use Plan (ACLUP), Zone D is the most distant of all of the airport zones, posing negligible risk and allowing all land uses except those hazardous to flight. The Project Site is outside the vicinity of any private airport. Air traffic will not result in any hazards to persons using or working in the Project area.

(g) No impact. The Project creates no physical barriers to emergency evacuation and would not otherwise interfere with an emergency evacuation plan.

(h) Less than significant with mitigation. The subject property consists of a City lot of approximately 6,200 square feet in size at the base of the Western Hills and Doolan Canyon. Vegetation within the Project Site consists predominantly of mature bay trees and non-native blackberry. Immediately adjacent (west) of the project site is undeveloped open space, densely vegetated areas interspersed with rural residential lots within County jurisdiction. The project site is not located within a California Department of Forestry (CalFire) State Responsibility Area (SRA). The Project Site is located within the jurisdiction of the Ukiah Valley Fire Authority and classified by the County of Mendocino as Medium Density Intermix on the County's Woodland-Urban Interface Zones map. Lands immediately west of the site are within the SRA and are classified as having a "High" fire hazard severity.

As discussed in Section 20, Wildfire, the Project may involve the use of gasoline-powered chainsaws for cutting logs used in the crib wall, potentially introducing new temporary sources of ignition that could increase fire risk. However, compliance with Mitigation Measure HAZ-2 will reduce the fire risk associated with gasoline-powered equipment to a less than significant level.

Potential Impacts: The incidental use of petroleum hydrocarbons (fuel, oil) in tools used at the Project Site has the potential for leaks or spills in or around the work area. In addition, the Project may involve the use of gasoline-powered chainsaws for cutting logs used in the crib wall, potentially introducing new temporary sources of ignition that could increase fire risk. Mitigation measures HAZ-1 and HAZ-2 would reduce potential impacts to a less than significant level.

Mitigation Measures:

HAZ-1 The contractor shall establish and implement construction site management practices that will prevent toxic materials and other debris from entering the City's storm drainage and waterway systems, including:

a) There shall be no storage of hazardous materials at the Project Site;
b) The contractor shall provide adequate materials management, including covering, securing, and segregating potentially toxic materials (grease, oils, fuel, solvents, etc.); and
c) The contractor shall maintain supplies on-hand to contain spills of oil and any other hazardous materials used on-site.

HAZ-2 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	☐	☐	☐	☒
iv) impede or redirect flood flows?	☐	☒	☐	☐
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: The Project Site is located within Doolin Creek, which is within 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. The Russian River provides habitat for Chinook salmon and steelhead trout, which are listed as threatened species under the federal Endangered Species Act. High temperature levels may be a source of impairment of cold water fisheries in the watershed.

Doolin Creek flows approximately one mile east to the Russian River. Doolin Creek and the Project Site are located within the 100-year floodplain in Zone AE (Base Flood Elevations determined) on published FEMA (Federal Emergency Management Agency) floodplain maps which identify areas subject to inundation by flood waters. There is no Floodway designated on this portion of Doolin Creek. Project activities will involve bank repair within the channel and bank of the 100-year floodplain. The Project Site is not located within a tsunami hazard zone.

Discussion: (a) Less than significant with mitigation. Construction of the proposed Project will not generate any wastewater; therefore, there are no waste discharge requirements associated with the Project. Bank repair activities have the potential to introduce sediment into the channel and be carried to the Russian River, which is listed as impaired for sediment/siltation. The use of chainsaws and other gasoline-powered equipment at the work site has the potential to introduce petroleum hydrocarbons, such as gasoline, oil and grease. Project plans include isolating the work site from the channel using plywood and sand bags. Additional measures to protect water quality during construction are provided in Mitigation Measures BIO-1, BIO-4, BIO-7, BIO-8, BIO-9, BIO-10, GEO-1 and GEO-2. Compliance with these measures will mitigate impacts to water quality to a less than significant level.

(b) No impact. Groundwater is not required for bank repair activities, nor will the Project or its construction disturb groundwater or the ability for the watershed to recharge.

(c)(i) Less than significant with mitigation. The Project has the potential to cause erosion and sediment that would be delivered into Doolin Creek and subsequently to the Russian River. Erosion and sediment control measures outlined in Mitigation Measure GEO-1 would reduce potential impacts to less than significant. In addition, construction of the Project in conformance with the redesigned plans and compliance with permits issued by USACE, CDFW and RWQCB (mitigation measure BIO-1) will protect Doolin Creek and the Russian River from siltation potentially created by the Project.

(c)(ii) and (iii) No impact. The Project will not increase the volume of runoff or the rate of flow of runoff from the Project Site. The hardened surface of the repaired bank will be vegetated where there is currently no vegetation, increasing water uptake through plants and potentially reducing runoff volumes by insignificant amounts. The Project Site drains to the creek and will therefore not exceed the capacity of the City storm drain system.

(c)(iv) Less than significant with mitigation. The proposed bank repair Project, if not properly designed and contrcuted, has the potential to redirect stream flows by hardening a section of bank. The direction of flow may change after deflecting from a hard surface, which could cause erosion and result in sedimentation elsewhere in the stream. The Project also has the potential to cause erosion that would be delivered into Doolin Creek and subsequently to the Russian River. Erosion and sediment control measures outlined in Mitigation Measure GEO-1 would reduce potential impacts to less than significant. In addition, the Project was re-designed after consulting with CDFW and RWQCB staff. Both agencies have indicated that the redesign is acceptable, and addresses their concerns related to off-site impacts due to hardening of the bank. Construction of the Project in conformance with the redesigned plans and compliance with permits issued by USACE, CDFW and RWQCB (Mitigation Measure BIO-1) will protect Doolin Creek and the Russian River from siltation potentially resulting from altered potentially altered flow patterns created by the Project.

(d) Less than significant with mitigation. The Flood Insurance Rate Maps prepared by the Federal Emergency Management Agency reveal that the Site is situated in Zone AE, which is the

designation assigned to those areas that are within the 100-year floodplain and the Base Flood Elevation has been determined. The Site is not located in a tsunami zone, dam inundation zone or below a levee. Construction of the Project within the floodplain introduces the possibility of pollutants entering the waterway. However, compliance with Mitigation Measures BIO-4, BIO-7, BIO-8, BIO-9, BIO-10, GEO-1 and HAZ-1 will reduce the risk of pollutants being released during inundation to a less than significant level.

(e) No impact. The Project does not conflict with a water quality control plan or a sustainable groundwater management plan.

Potential Impacts: Construction of the Project within the creek and floodplain introduces the possibility of pollutants entering the waterway and the Project has the potential to cause erosion and sediment that would be delivered into Doolin Creek and subsequently to the Russian River. The use of chainsaws and other gasoline-powered equipment at the work site has the potential to introduce petroleum hydrocarbons, such as gasoline, oil and grease. The proposed Project also has the potential to redirect stream flows by hardening a section of bank. The direction of flow may change after deflecting from a hard surface, which could cause erosion and result in sedimentation elsewhere in the stream. Implementation of Mitigation Measures BIO-1, BIO-4, BIO-7, BIO-8, BIO-9, BIO-10, GEO-1, GEO-2 and HAZ-1 would reduce impacts to less than significant.

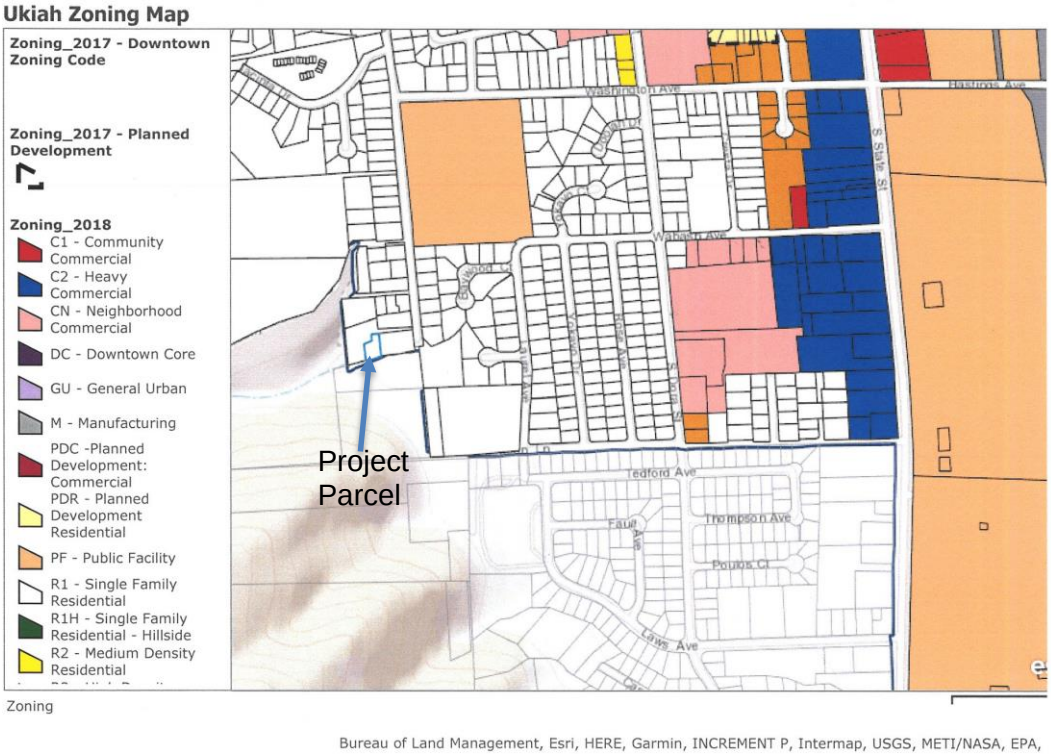
Mitigation Measures: The following mitigation measures will reduce hydrologic and water quality impacts to a less than significant level: BIO-1, BIO-4, BIO-7, BIO-8, BIO-9, BIO-10, GEO-1, GEO-2 and HAZ-1.

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 Project Site is located within the incorporated City of Ukiah. The parcel has a General Plan land use designation of Low Density Residential (LDR) and is zoned Single-Family Residential (R-1). The Project Site is surrounded by residential uses. A zoning map is provided below.



Discussion: (a) – (b) No impact. The Ukiah City Code is silent on streambank repairs, but the applicant is seeking a Site Development Permit, in accordance with Section 9263 of the Ukiah City Code. The Site is developed with a single-family residence in accordance with the R1 zoning district standards and the proposed Project is consistent with the purpose and intent of the R-1 zoning district to "preserve, enhance, and protect the low density residential neighborhoods in the community." The proposed bank repair to protect the existing creek and an existing residential structure will not physically divide a community.

Potential Impacts: The proposed Project will have no impact on land use and planning related issues as described above.

Mitigation Measure(s): None required.

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 Project Site is not located within an area identified by the State or County as regionally significant for containing mineral resources.

Discussion: (a) – (b) No impact. There are no regionally significant mineral resources identified within the Project area and the Project does not involve the extraction of mineral resources. Therefore, the bank repair project would not result in the loss of availability of a valuable or locally-important mineral resource.

Potential Impacts: The Project would have no impact on mineral resources.

Mitigation Measure(s): None required.

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 groundborne vibration or groundborne 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 groundborne 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 Project Site is located within a single-family residential neighborhood near the edge of the unincorporated County, where City lots transition to larger residential parcels and open space. The area is exposed to the typical background noise associated with residential neighborhoods, such as light vehicle traffic, human voices, lawnmowers, etc. Located within a riparian corridor at the terminus of the road, the Project Site is a generally quiet environment that experiences the typical sounds of an urban creekside setting such as those from flowing water, birds, insects, etc. intermingled with the human environment. The nearest residential receptor is a single-family residence located approximately 35 feet east of the work site. Other nearby single-family residences are located approximately 80 feet to the west and 90 feet to the south of the work site.

Discussion: (a) Less than significant impact. Short-term noise would be generated during construction of the bank repair Project. Construction-related noise may involve the use of chain saws for the cutting of logs for the crib wall, crew members transporting and shoveling soil in wheelbarrows, sledgehammers and power drills used for anchoring structural members in place. Construction noise would occur over a period of approximately two weeks. Once Project construction is completed, there would be no further noise associated with the Project. There would not be a permanent increase in ambient noise levels in the Project vicinity.

(b) Less than significant impact. Some of the construction activity would occur in the ground and there may be minor noise and vibration associated with this work. However, due to the temporary nature of the work and distance from receptors, the impact will not be excessive.

(c) Less than significant. As discussed in Section 9 (e), Hazards and Hazardous Materials, the Project Site is located approximately 3,000 feet west of the Ukiah Municipal Airport in Zone D. According to the Mendocino County Airport Comprehensive Land Use Plan (ACLUP), Zone D is the most distant of all of the airport zones, posing negligible risk and allowing all land uses except those hazardous to flight. Due to distance from the airport, noise conflicts with aircraft are not expected to occur.

Potential Impacts: Due to the nature of the Project, the short-term construction period and the distance from noise-sensitive uses, it is anticipated that the temporary noise and vibration generated from the proposed Project will not be substantial and will not result in a significant increase in ambient noise levels such that City noise standards would be exceeded. Impacts would be less than significant.

Mitigation Measure(s): None required.

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 subject property is located in an established neighborhood in an area of low residential density within the southwestern portion of the City of Ukiah, which has a population of 15,882 persons.

Discussion: (a) – (b) No impact. The Project would not involve the construction of new homes or businesses, nor the extension of roads that would induce population growth; the Project would not displace any people or housing.

Potential Impacts: The proposed Project will have no impact on population and housing.

Mitigation Measure(s): None required.

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: The subject property is a private residential parcel served by the Ukiah Police Department and the Ukiah Valley Fire Authority, and located within the Ukiah Unified School District.

Discussion: (a) No impact. The proposed bank repair Project will not result in the need for additional police or fire protection, parks or other public facilities. 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.

Potential Impacts: The proposed Project will have no impact on police protection, schools, hospitals, parks or other public facilities.

Mitigation Measure(s): None required.

16. 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 Ukiah Valley offers a wide variety of recreational opportunities. These include more than 13 City parks, a municipal golf course, and a skate park managed by the City of Ukiah; two regional parks managed by the County; Cow Mountain Recreation Area managed by the Bureau of Land Management; and Lake Mendocino managed by the US Army Corps of Engineers. In addition, there are approximately 30 miles of trails located throughout the Ukiah Valley.

Discussion: (a) – (b) No impact. The proposed Project involves the repair of an eroded creek bank on private property, and as such will have no effect on public parks or recreational facilities.

Potential Impacts: The project would have no impact on recreation.

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)?	☐	☐	☒	☐
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?	☐	☐	☐	☒

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. Assembly Bill (AB) 52 was signed into law on September 25, 2014, requiring lead agencies to evaluate a project's potential to impact tribal cultural resources and establishes a consultation process for California Native American Tribes as part of CEQA. 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: The Project Site consists of an approximately 75-foot section of creek bank under evergreen riparian canopy on the north side of Doolin Creek. Doolin Creek is a perennial stream that flows along the southerly border of the subject property to the Russian River, approximately 175 miles to the east. Vegetation on the Project Site is comprised primarily of mature bay trees with an understory of predominantly non-native blackberry. 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.

Discussion: (a) – (b) Less than significant with mitigation. In compliance with AB 52, on February 28, 2019, the City of Ukiah mailed notices regarding the request for tribal consultation to the following tribes:

- Coyote Valley Band of Pomo (2 contacts)
- Guidiville Indian Rancheria of Pomo Indians (2 contacts)
- Hopland Band of Pomo Indians
- Pinoleville Pomo Nation (3 contacts)
- Potter Valley Rancheria
- Redwood Valley Little River Band of Pomo Indians
- Scotts Valley Band of Pomo Indians

- Yokaya Tribe

The list was populated based on recommendations from the National Congress of American Indians website and the California Native American Heritage Commission (NAHC), who was included in the noticing. No comments were received by the tribes. The NAHC responded with a list of recommended tribal contacts; all recommended contacts were included in the original noticing efforts. Example notices and consultation documents are provided in **Attachment C**.

Construction activities associated with the Project will use soil, vegetation and structural components to stabilize the bank. No soil will be removed from the Site. The proposed Project is intended to protect the bank from further erosion. By stabilizing the bank, the Project may be preserving cultural resources stored within the bank of the creek.

Potential Impacts: No potential impacts to resources were identified by any of the tribes contacted; therefore, no impacts to known tribal cultural resources are anticipated as a result of the Project. However, as discussed in Section 5, Cultural Resources, due to the small area of disturbance, the use of only hand tools, and the intent of the Project to protect site soils, cultural resources that may be contained within soils in the work area are likely to be discovered. If a discovery occurs, Mitigation Measure CUL-1 would require work to stop, and a qualified archaeologist to be hired to perform a site investigation and to develop a mitigation program if appropriate. The potential impacts are considered to be less than significant with mitigation incorporated.

Mitigation Measure(s): Implementation of Mitigation Measure CUL-1 will reduce potential impacts on tribal cultural resources to a less than significant level.

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?	☐	☐	☐	☒

- Yokaya Tribe

The list was populated based on recommendations from the National Congress of American Indians website and the California Native American Heritage Commission (NAHC), who was included in the noticing. No comments were received by the tribes. The NAHC responded with a list of recommended tribal contacts; all recommended contacts were included in the original noticing efforts. Example notices and the response received from the NAHC are provided in **Attachment C**.

Construction activities associated with the Project will use soil, vegetation and structural components to stabilize the bank. No soil will be removed from the Site. The proposed Project is intended to protect the bank from further erosion. By stabilizing the bank, the Project may be preserving cultural resources stored within the bank of the creek.

Potential Impacts: No potential impacts to resources were identified by any of the tribes contacted; therefore, no impacts to known tribal cultural resources are anticipated as a result of the Project. However, as discussed in Section 5, Cultural Resources, due to the small area of disturbance, the use of only hand tools, and the intent of the Project to protect site soils, cultural resources that may be contained within soils in the work area are likely to be discovered. If a discovery occurs, Mitigation Measure CUL-1 would require work to stop, and a qualified archaeologist to be hired to perform a site investigation and to develop a mitigation program if appropriate. The potential impacts are considered to be less than significant with mitigation incorporated.

Mitigation Measure(s): Implementation of Mitigation Measure CUL-1 will reduce potential impacts on tribal cultural resources to a less than significant level.

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 Project Site consists of a portion of a residential lot situated on the north side of Doolin Creek and containing a single-family residence. The residence is served by City water, sewer, electricity and trash collection; however, there are no public utilities that service the work area. The Site has no groundwater wells or septic disposal systems.

Discussion: (a) No impact. The proposed bank repair Project does not involve the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities. Therefore, the Project will have no impact on these systems.

(b) Less than significant impact. The proposed Project will not require water during construction. Plantings will require supplemental irrigation for at least the first two years during the dry season until plants are established. As specified in Section 4, Biological Resources, the monitoring program requires an 85% survival rate after five years. If this success criterion is not achieved, replacement planting will be required, which would extend the period of time irrigation would be needed. Selecting native and locally appropriate drought-tolerant plants will reduce water requirements. The use of mulch and the location of the plantings shaded by a mature riparian canopy will further reduce water needs. Water usage for the Project would likely be less than or equal to water usage for landscaping the yard, and as such would be less than significant.

(c) No impact. The bank repair Project will not require wastewater treatment service.

(d) - (e) No impact. Construction of the Project may result in leftover building materials when the Project is completed. Wood products such as logs or lumber can be recycled at the City's transfer station. Plywood and sandbags can be reused at other job sites by the contractor. Due to the fact that construction materials would either be recycled or reused and the Project will not generate excessive solid waste, the Project as proposed complies with waste management statutes and regulations.

Potential Impacts: The Project will have no impact on electricity, water, storm drain system, sewer treatment or waste disposal services. The proposed Project will comply with solid waste management regulations and will have a less than significant impact on water supply.

Mitigation Measure(s): 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: The subject property consists of a City lot of approximately 6,200 square feet in size at the base of the Western Hills and Doolan Canyon. Vegetation within the Project Site consists predominantly of mature bay trees and non-native blackberry. Immediately adjacent (west) of the project site is undeveloped open space, densely vegetated areas interspersed with rural residential lots within County jurisdiction. The project site is not located within a California Department of Forestry (CalFire) State Responsibility Area (SRA). The Project Site is located within the jurisdiction of the Ukiah Valley Fire Authority and classified by the County of Mendocino as Medium Density Intermix on the County's Woodland-Urban Interface Zones map. Lands immediately west of the site are within the SRA and are classified as having a "High" fire hazard severity.

Discussion: (a) No impact. The proposed bank repair Project is limited to a section of creek on a residential lot. The Project will not affect an adopted emergency response plan or emergency evacuation plan.

(b) Less than significant with mitigation. The Project will occur primarily within the shaded bed and bank of Doolin Creek. Site conditions at the work site will be moist from surface or recently subsurface waters and are not expected to exacerbate wildfire risk. As discussed in Section 9, Hazards and Hazardous Materials, the Project may involve the use of gasoline-powered chainsaws for cutting logs used in the crib wall, potentially introducing new sources of ignition that could increase fire risk. However, compliance with Mitigation Measure HAZ-2 will reduce the fire risk associated with gasoline-powered equipment to a less than significant level.

(c) No impact. The proposed Project is confined to a small, sheltered area under the shaded canopy of Doolin Creek and will not require the installation or maintenance of fire prevention infrastructure.

(d) Less than significant impact. The proposed Project is intended to reduce future impacts resulting from localized flooding along Doolin Creek, including the protection of a single-family residence and deck. The Site is not located in an area recently impacted by wildfire. The Project will not expose people or structures to risks related to flooding or landslides due to runoff or drainage changes or to post-fire slope instability.

Potential Impacts: The Project may involve the use of gasoline-powered chainsaws for cutting logs used in the crib wall, potentially introducing new sources of ignition that could increase fire risk.

Mitigation Measure(s): Implementation of Mitigation Measure HAZ-2 would reduce potential wildfire risks to less than significant.

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) Based on the findings and conclusions contained in the Initial Study, the Project has the potential to significantly impact Biological Resources, Cultural and Tribal Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, and Wildfire. However, the implementation of mitigation measures described herein will reduce all potential impacts to a less than significant level.

(b) Cumulative impacts are generally considered in analyses of air quality, biological resources, cultural resources, noise, and traffic. As discussed in Section 4 (Biological Resources), the Project has the potential to adversely affect sensitive species; however, implementation of Mitigation Measures BIO-1 through BIO-11 would reduce project-specific impacts to a less than significant level through biological surveys, physical barriers to isolate the work site, timing of construction, revegetation standards and best management practices. With implementation of these measures, the Project would not have a considerable contribution to cumulative impacts on biological resources. As discussed in Sections 5 (Cultural Resources) and 18 (Tribal Cultural Resources), the Project's impacts on unanticipated cultural and tribal cultural resources during earthwork activities would be reduced to a less than significant level with incorporation of Mitigation Measures CUL-1. As discussed in Section 13 (Noise) and Section 17 (Transportation/Traffic), construction of the Project would not generate substantial additional noise or traffic relative to existing conditions. Based on the findings and conclusions contained in the Initial Study, the proposed Project would have impacts that are individually limited, but are not cumulatively considerable.

(c) 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. As stated in Section 3 (Air Quality), the proposed Project will not expose sensitive receptors to substantial pollutant concentrations or result in other emissions that would affect a substantial number of people. As discussed in Section 7 (Geology/Soils), construction of the Project would not expose people to substantial adverse effects from fault rupture, ground shaking, ground failure, liquefaction, or landslides or involve the construction of habitable structures that could be subject to unstable or expansive soils. As discussed in Section 9 (Hazards and Hazardous Materials) and 20 (Wildfire), Mitigation Measures HAZ-1 and HAZ-2 to prevent toxic materials from entering Doolin Creek and to implement firesafe practices with gasoline-powered equipment will reduce impacts to a less than significant level. As discussed in Section 13 (Noise), the Project would not result in a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of local noise standards, will not generate excessive groundborne vibration or noise levels, and is not located within the vicinity of a public or private air strip. Adverse environmental effects on human beings would be potentially significant unless mitigation is incorporated to reduce human exposure to hazardous conditions.

VII. MITIGATION MONITORING AND REPORTING PROGRAM

Potential Impact	Mitigation Measure	Implementation Responsibility	Monitoring & Reporting Responsibility	Timing	Date Implemented
Biological Resources					
Construction activities associated with the proposed Project have the potential to impact nesting birds and raptors.	**BIO-1:** This permit shall be subject to the securing of, and compliance with, all necessary permits for the proposed Project from all agencies having jurisdiction, including the U.S. Army Corps of Engineers, the Regional Water Quality Control Board and the California Department of Fish and Wildlife. The applicant shall copy the City of Ukiah Community Development Department on all reports, including maintenance and monitoring of revegetation that are provided to jurisdictional agencies.	Applicant; project engineer	Applicant	Prior to construction and throughout monitoring period	
	BIO-2: If Project activities occur during the breeding season for nesting birds (February 15 through September 1), a qualified biologist shall conduct a breeding bird survey no more than 14 days prior to Project activities to determine if any birds are nesting in trees adjacent to the proposed work site. If active nests are found close enough to the work site to affect breeding success, the biologist will establish an appropriate exclusion zone around the nest. This exclusion zone may be modified depending upon the species, nest location, and existing visual buffers. If the nest is too close to the proposed work site, work may be delayed	Applicant; project engineer; qualified biologist	Applicant	Construction occurring between Feb 15 and September 1	

	until the young have fledged. If initial work is delayed or there is a break in Project activities of greater than 14 days within the bird-nesting season, then a follow-up nesting bird survey shall be performed to ensure that no nests have been established in the interim.				
Construction of the Project Foothill yellow-legged frog; Western pond turtle, Red-bellied newt and their habitats.	**BIO-3:** Foothill yellow-legged frog (FYLF) surveys shall be conducted as directed by CDFW. Consultation with CDFW shall be conducted should eggs or frogs be detected.	Qualified biologist; contractor	Applicant	Prior to construction	
	BIO-4: The work site shall be isolated from water. a. The isolated site shall be cleared for fish and frogs b. To prevent sediment from entering the creek, temporary plywood with sandbags or other method acceptable to CDFW shall be installed to prevent water from entering the work area. Materials used to create the isolated work site shall be removed after creek bank repair work is completed. c. A qualified wildlife biologist shall be present during establishment of a dry work zone. If any federally or state listed special-status species are observed prior to establishing the isolated work site, the animal will be allowed to move away from the work site on its own accord. If Western pond turtle or red-bellied newt are observed, they may be moved by the biologist to a safe location up or downstream away from the work site. The work site shall be checked daily prior to the start of work to ensure that no special-status species are within work site.	Qualified biologist; contractor	Applicant	Prior to construction; during construction	

	BIO-5: Prior to construction, all workers on the crew shall be trained by a qualified biologist as to the sensitivity of the FYLF, red-bellied newt and Western pond turtle and other special-status species potentially occurring on the property.	Qualified biologist; contractor	Applicant	During construction	
	BIO-6: Work shall not be conducted at the areas proposed for bank repair any time 30 minutes before sunrise or sunset.	Contractor	Applicant	During construction	
Construction activities associated with the proposed Project have the potential to indirectly significantly impact the following special status species through erosion and sediment delivery: Steelhead trout; Chinook salmon; Russian River tule perch; Pacific lamprey; and Western pearlshell.	Implementation of Mitigation Measure BIO-1 through BIO-4.	Contractor	Applicant	During site preparation and throughout construction activities	
	BIO-7: All work shall be conducted between June 15 and October 15 unless otherwise allowed by CDFW.	Contractor	Applicant	During site preparation and throughout construction activities	
	BIO-8: No construction activities shall occur during rain events, defined as ¼ inch of rain falling within a 24-hour period. Construction activities may resume 24 hours after the end of the rain event.	Contractor	Applicant	During site preparation and throughout construction activities	
	BIO-9: No heavy equipment shall be allowed in the channel. Only hand tools shall be used for Project construction.	Contractor	Applicant	During site preparation and throughout construction activities	

	BIO-10: Best management practices shall be implemented during construction to prevent pollutants from entering the stream. a. No soil, turbid water, oil, grease or other construction-generated pollutants shall be allowed to enter the stream. b. Silt fencing and/or fiber rolls shall be utilized as necessary to minimize or avoid potential erosion into the creek channel. c. Any soil removed from the work site shall be placed in an upland location outside of the work area and protected to prevent loose soil from entering the work area. d. For erosion protection following construction, all disturbed slopes shall be seeded with a native, locally appropriate seed mix and mulched. e. Disturbed banks shall be planted with woody species for bank stabilization. California native, drought-tolerant and locally appropriate plant materials suited for a shaded environmental shall be planted. Species shall be approved by the Community Development Department and/or CDFW. f. Revegetation shall comply with the monitoring plan and success criteria detailed in the Project plans.	Contractor	Contractor	During site preparation and throughout construction activities	
	BIO-11: Vegetation maintenance and monitoring shall include: a. Installation of an irrigation system to irrigate revegetated areas at a regular frequency and a monitoring period of five years.	Contractor	Applicant	During construction activities and throughout a five-year monitoring period	

	b. Vegetation must be able to survive the last two years of the five-year monitoring period without irrigation. c. A survival rate of 85 percent after five years is required. If the survival rate is not achieved at the end of the monitoring period, all dead or dying trees shall be replaced. d. Any replaced vegetation shall be monitored for a five-year period until the 85 percent survival rate is achieved. e. Annual reports summarizing vegetation status and photographs of the site shall be submitted to the RWQCB and CDFW, and a final report would be submitted when the Project is completed. The applicant shall copy the City of Ukiah Community Development Department on all reports.				
Cultural Resources and Tribal Cultural Resources					
Construction of the Project has the potential for accidental discovery of unknown, undiscovered cultural resources and tribal cultural resources.	**CUL-1:** If, during site preparation or construction activities, any historic or prehistoric cultural resources are unearthed and discovered, all work shall immediately be halted, and the City notified of the discovery. The applicant shall be required to fund the hiring of a qualified professional archaeologist to perform a field reconnaissance and to develop a precise mitigation program if deemed necessary by the City of Ukiah Community Development Director.	Contractor; Qualified archaeologist	Applicant	During site preparation and throughout construction activities	
Geology and Soils					

Although the Project would increase the stability of the bank, if not carefully designed and constructed, has the potential to cause additional erosion, landslide or collapse due to its location within the stream channel and exposure to direct fluvial action.	Incorporation of Mitigation Measures BIO-1, BIO-7, BIO-8, BIO-9, BIO-10 and BIO-11.	Project engineer; contractor	Contractor; Applicant	Prior to and during site preparation and throughout construction activities; ongoing as needed to control erosion	
	GEO-1: The Project shall comply with the design standards outlined in Section 9703 of the Ukiah City Code, including: a) Erosion and sediment control practices shall meet the design criteria set forth in the most recent version of the California Stormwater Quality Association best management practice handbook, and shall be adequate to prevent transportation of sediment from the site to any off site area to the satisfaction of the City engineer; b) Soil disturbance work shall be conducted during dry weather whenever possible; c) Soil stabilization shall be completed within five (5) days of clearing or inactivity in construction; d) Projects shall be designed to avoid disturbing land in sensitive areas and to preserve existing vegetation wherever possible; e) Major grading operations shall be scheduled during dry months when practical, and shall allow adequate time before rainfall begins to stabilize the soil with erosion control materials; f) Seeding and mulching shall be done as soon as grading is complete;	Project engineer; Contractor	Contractor; Applicant	Prior to and during site preparation and throughout construction activities; ongoing as needed to control erosion	

	g) Soil stockpiles must be stabilized and/or securely covered at the end of each workday; h) Linear sediment barriers shall be placed below the toe of exposed and erodible slopes, down slope of exposed soil areas, around soil stockpiles, and at other appropriate locations along the site perimeter.				
	GEO-2: The installation of erosion and sediment control measures, such as fiber rolls, shall be installed downslope of disturbed areas no later than October 15th or prior to the first rain of the season. Fiber rolls shall be composed of materials that will naturally decompose in the environment and will not pose a risk to wildlife. Temporary erosion control measures such as silt fencing shall be removed when disturbed soils have stabilized.	Contractor	Contractor; Applicant	Prior to and during site preparation and throughout construction activities; ongoing as needed to control erosion	
Hazards and Hazardous Materials					
Project construction could result in a hazard to the public or the environment if the incidental use of petroleum hydrocarbons (fuel, oil) in tools used during construction were to lead to accidental leaks or spills in or around the work area, including the creek.	**HAZ-1:** The contractor shall establish and implement construction site management practices that will prevent toxic materials and other debris from entering the City's storm drainage and waterway systems, including: a) There shall be no storage of hazardous materials at the Project Site; b) The contractor shall provide adequate materials management, including covering, securing, and segregating potentially toxic materials (grease, oils, fuel, solvents, etc.); and	Contractor	Contractor	During construction	

	c) The contractor shall maintain supplies on-hand to contain spills of oil and any other hazardous materials used on-site.				
Construction of the Project may involve the use of gasoline-powered chainsaws for cutting logs used in the crib wall, potentially introducing new temporary sources of ignition that could increase fire risk.	**HAZ-2:** 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.	Contractor	Contractor	During construction	
Hydrology and Water Quality					

The Project could result in significant impacts to the water quality of Doolin Creek and the Russian River due to delivery of sediment and petroleum hydrocarbons.	Implementation of Mitigation Measures BIO-1, BIO-4 BIO-7, BIO-8, BIO-9, BIO-10, BIO-11, GEO-1 and GEO-2, HAZ-1	Contractor	Applicant	Prior to and during construction; ongoing as needed to control erosion	
The Project has the potential to cause erosion and sediment that would be delivered into Doolin Creek and subsequently to the Russian River.	Implementation of Mitigation Measures GEO-1 and BIO-1	Contractor	Applicant	Prior to and during construction; ongoing as needed to control erosion	
The Project, if not carefully designed and constructed, has the potential to redirect stream flows by hardening a section of bank. The direction of flow may change after deflecting from a hard surface, which could cause erosion and result in sedimentation elsewhere in the stream.	Implementation of Mitigation Measures GEO-1 and BIO-1	Contractor	Applicant	Prior to and during construction; ongoing as needed to control erosion	

Construction of the Project within the floodplain introduces the possibility of pollutants entering the waterway.	Implementation of Mitigation Measures BIO-4, BIO-7, BIO-8, BIO-9, BIO-10, GEO-1 and HAZ-1	Contractor	Applicant	Prior to and during construction; ongoing as needed to control erosion	
Wildfire					
Construction of the Project may involve the use of gasoline-powered chainsaws for cutting logs used in the crib wall, potentially introducing new sources of ignition that could increase fire risk	Implementation of Mitigation Measure HAZ-2	Contractor	Contractor	During construction	

VIII. REFERENCES

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ATTACHMENT A

CREEK BANK REPAIR PLANS
CHRIS AND MIRANDA DABBS
1364 HELEN AVENUE, UKIAH, CA
APN: 003-490-96

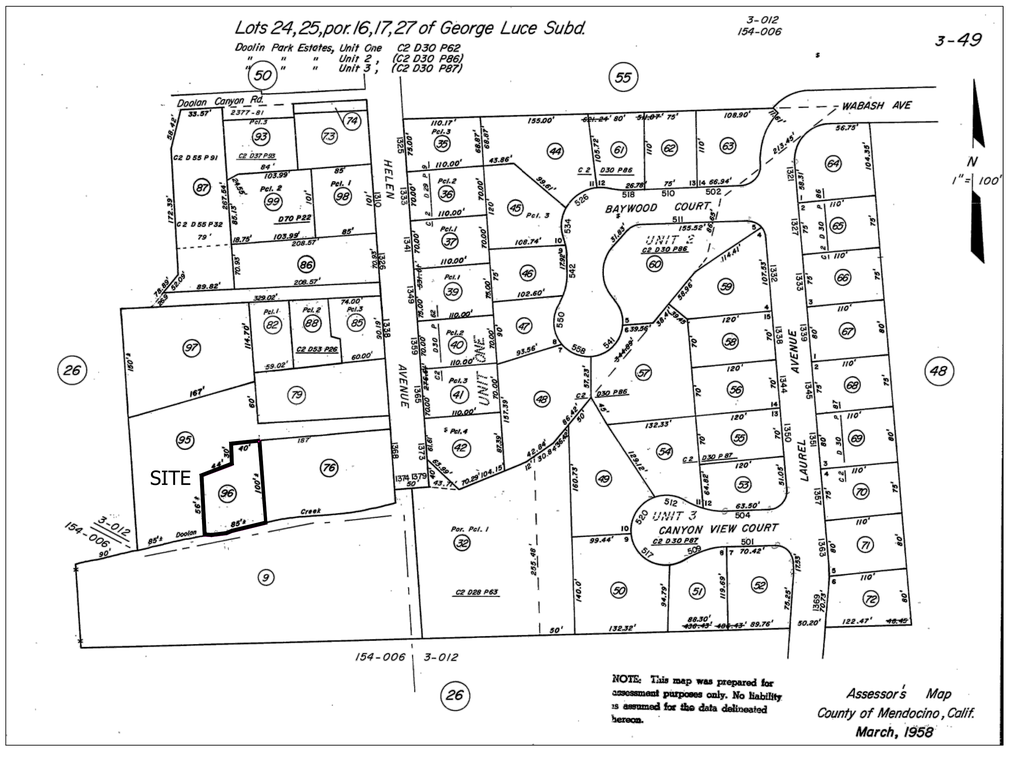
Project Information

PROJECT ADDRESS:	1364 HELEN AVENUE, UKIAH, CA
OWNER/DEVELOPER :	CHRIS AND MIRANDA DABBS 733 LAKE MENDOCINO DRIVE UKIAH, CA 95482 (707) 391-4046
CIVIL ENGINEER :	THOMAS J. BILLETER, P.E. 2800 CLEVELAND AVENUE SANTA ROSA, CA 95403 (707) 542-4321
ACRES :	0.17 ACRES

Purpose

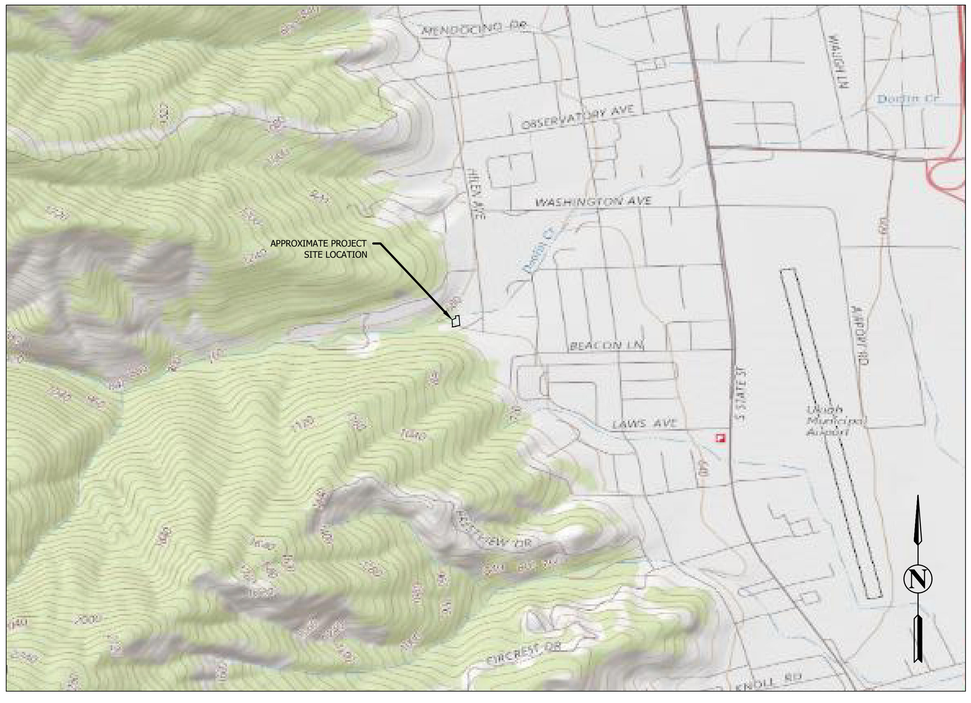
THE PURPOSE OF THIS PROJECT IS TO RESTORE AND STABILIZE A PORTION OF A CREEK BANK THAT IS ERODING.

Sheet Index



Assessor's Parcel Map

NTS



Vicinity Map & USGS Map

NTS

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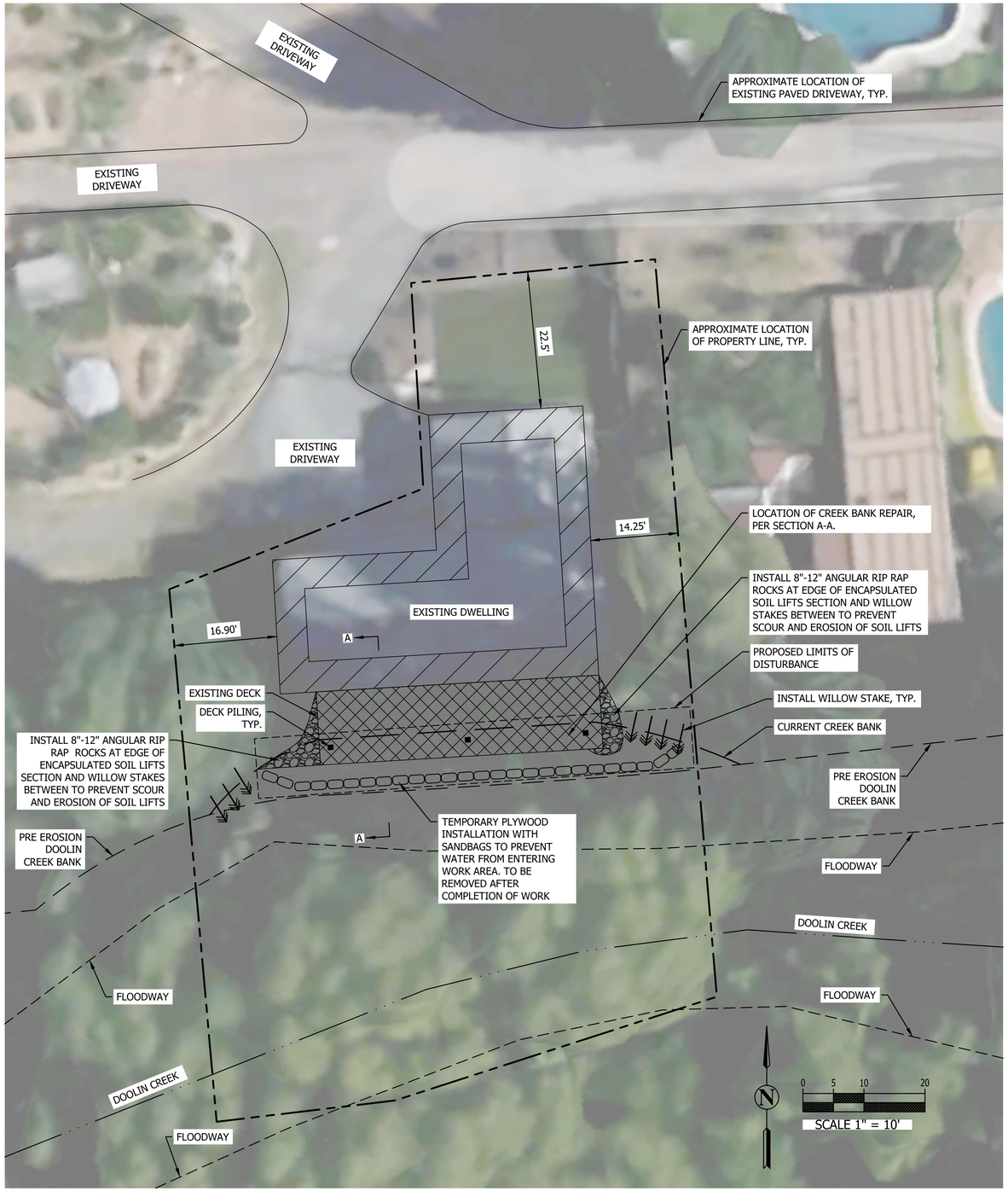
UKIAH OFFICE:
603 S. State Street, Ukiah CA 95482

REV.	DESCRIPTION	BY	DATE

CREEK BANK REPAIR PLANS
COVER SHEET
CHRIS AND MIRANDA DABBS
1364 ELEN AVENUE
UKIAH, CA 95482

Date:	1/15/19
Job:	561-17
Drawn:	ANR
Scale:	NTS
APN:	003-490-96
Permit #:	
Sheet:	1 OF 2



CREEK BANK REPAIR PLAN
SCALE: 1" = 10'

HATCH LEGEND

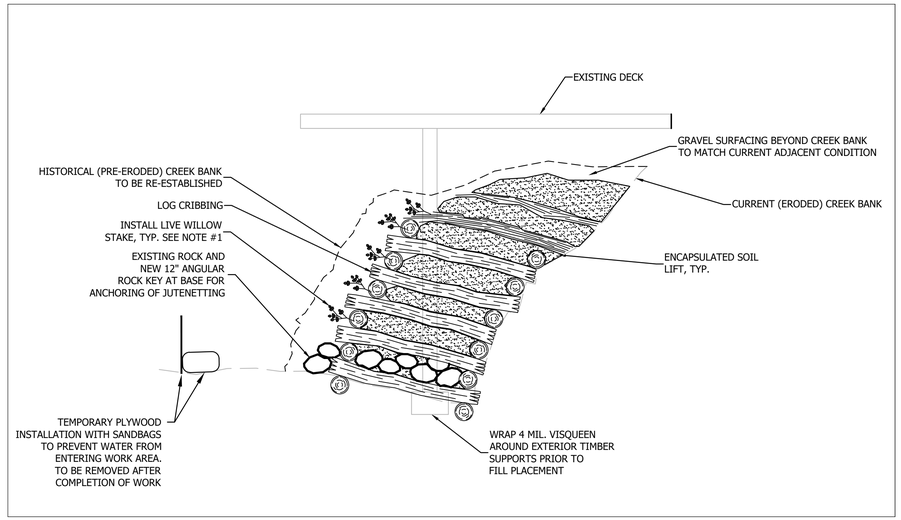
EXISTING DECK

NOTES:

ALL FEATURE LOCATIONS ARE APPROXIMATE AND WERE OBTAINED THROUGH PUBLICLY AVAILABLE ENTITIES.

DIMENSIONS TO PROPERTY LINES AS SHOWN ARE APPROXIMATE.

FLOODWAY AND DOOLIN CREEK FLOWLINE LOCATIONS PER FEMA MAP SERVICE CENTER



NOTE:

SEE SIMILAR TEMPLATE, FIGURE 6-5 OF CHAPTER 6 OF THE STREAM MAINTENANCE MANUAL FOR NAPA COUNTY.

NO WILLOW STAKES TO BE INSTALLED IN REPAIR AREAS IMMEDIATELY BELOW EXISTING DECK. WILLOW STAKES TO BE INSTALLED AT 24" SEPARATION ON-CENTER FOR LENGTH OF IMPROVEMENTS. DIAMETER OF STAKES TO BE 1" MINIMUM. EMBED STAKES AT LEAST 75% OF LENGTH INTO BACKFILL SOIL.

CREEK BANK REPAIR - SECTION A-A
NOT TO SCALE

WILLOW PLANTING NOTES:

PROPOSED WILLOWS SHALL COME FROM NURSERY STOCK GROWN FROM LOCALLY-SOURCED ACORNS/SEEDS, OR FROM ACORNS/SEEDS GATHERED LOCALLY, PREFERABLY FROM THE SAME WATERSHED IN WHICH THEY ARE PLANTED.

AN IRRIGATION SYSTEM SHALL BE ESTABLISHED TO REGULARLY WATER TREES. THE TREES SHOULD BE ABLE TO SURVIVE THE LAST TWO YEARS OF THE FIVE-YEAR MONITORING PERIOD WITHOUT IRRIGATION.

DURING THE FIVE-YEAR MONITORING PERIOD, DEAD OR DYING TREES SHALL BE REPLACED WITH TREES OF THE SAME SPECIES AND SIZE TO ACHIEVE A NECESSARY 85% SURVIVAL RATE AT THE END OF THE FIVE-YEAR PERIOD. IF AN 85% SURVIVAL RATE IS NOT ACHIEVED AT THE END OF FIVE-YEAR MONITORING PERIOD, ALL DEAD OR DYING TREES AT THAT TIME SHALL BE REPLACED.

IF VEGETATION DIES WITHIN THE FIRST FIVE YEARS, THE REPLANTED VEGETATION NEEDS TO BE MONITORED FOR FIVE YEARS. THE TREE PLANTING AREAS NEED TO BE MONITORED ENOUGH TO ASSURE SUCCESS. A REPORT OF COMPLETION IS TO BE SUBMITTED TO NCRWQCB AND DFW AFTER THE PLANTING OF THE VEGETATION WHICH SHALL BE PLANTED IN THE WINTER/SPRING AFTER THE PROJECT IS COMPLETED.

ANNUAL REPORTS CONTAINING A NARRATIVE OF VEGETATION STATUS AND PHOTOS OF THE SITE SHALL BE SUBMITTED AT THE END OF EACH CALENDAR YEAR.

REV.	DESCRIPTION	BY	DATE

BC ENGINEERING GROUP, INC.
CIVIL ENGINEERING & LAND PLANNING
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603 S. State Street, Ukiah CA 95482

CREEK BANK REPAIR PLANS

SITE PLAN AND DETAILS

CHRIS AND MIRANDA DABBS
1364 HELEN AVENUE
UKIAH, CA 95482

Date: 1/15/19
Job: 561-17
Drawn: ANR
Scale: AS SHOWN
APN: 003-490-96
Permit #:

Sheet: 2 OF 2

Photo 1. View to east, downstream. 12/26/2018.

Photo 2. View to southwest, upstream. 12/26/2018.

ATTACHMENT B

Biological Resources Assessment
1364 Helen Avenue
Ukiah, Mendocino County, California
(APN 003-490-96)

Prepared For:

Mr. Chris and Ms. Miranda Dabbs
1364 Helen Avenue
Ukiah, California 95482

Prepared by:

Ms. Lucy Macmillan
Environmental Scientist
108 Rising Road
Mill Valley, California 94941
415-389-9199

NOVEMBER 2018
REVISED DECEMBER 2018

EXECUTIVE SUMMARY

This report presents the results of a biological resources assessment conducted for property located at 1364 Helen Avenue in Ukiah, Mendocino County, California. The property is located on Assessor Parcel 003-490-96 approximately ½ mile west of the Ukiah Municipal Airport in a residential area adjacent to Doolin Creek at the eastern side of Cleland Mountain.

The purpose of the assessment is to identify special-status plant and wildlife species and sensitive habitats (including wetlands) that have the potential to occur on or in the vicinity of the study area to determine if a proposed bank stabilization project adjacent to the residence could potentially affect these resources. Based on information and data collected for the analysis, appropriate mitigation measures designed to minimize and/or avoid potential biological resource impacts are provided.

The property is accessed via a private drive from Helen Avenue and covers 0.17 acre (Figure 1). Doolin Creek runs through the southern portion of the property immediately adjacent to and south of the existing residence. The southern property line extends to the southern floodplain limits of the parcel as shown on the attached engineering plans. The creek banks adjacent to the residence have eroded significantly during heavy rain events and threaten the integrity of the existing deck and residence. A bank stabilization project is proposed to repair the bank to protect the residence.

Doolin Creek traverses the parcel in an easterly direction for approximately 90 linear feet and measures approximately 15 feet wide at the ordinary high water mark as described in Section 3.0. Doolin Creek drains to the Russian River, which is approximately 1 mile east of the project site. There is no potential for special-status plants to occur within the bank stabilization area as described in Section 4.0. The project site provides potential habitat for nesting birds, steelhead trout, foothill yellow-legged frog, red-bellied newt and western pond turtle as described in Section 4.0. Chinook salmon, Russian river tule perch, Pacific lamprey, and western pearlshell mussel potentially occur in the Russian River approximately one mile downstream of the project site.

Figure 1: Location of Project Study Area
1364 Helen Ave., Ukiah , CA

Stream
Streets
Project Study Area
Project Location

Date: 11-12-2018
Data: Sol Ecology Inc., CDFW, astricklin_cou, iwagoladmin_cou

Base: ESRI
GIS: AJG

SOL ECOLOGY
solecology.com

CREEK BANK REPAIR PLANS
CHRIS AND MIRANDA DABBS
1364 HELEN AVENUE, UKIAH, CA
APN: 003-490-96

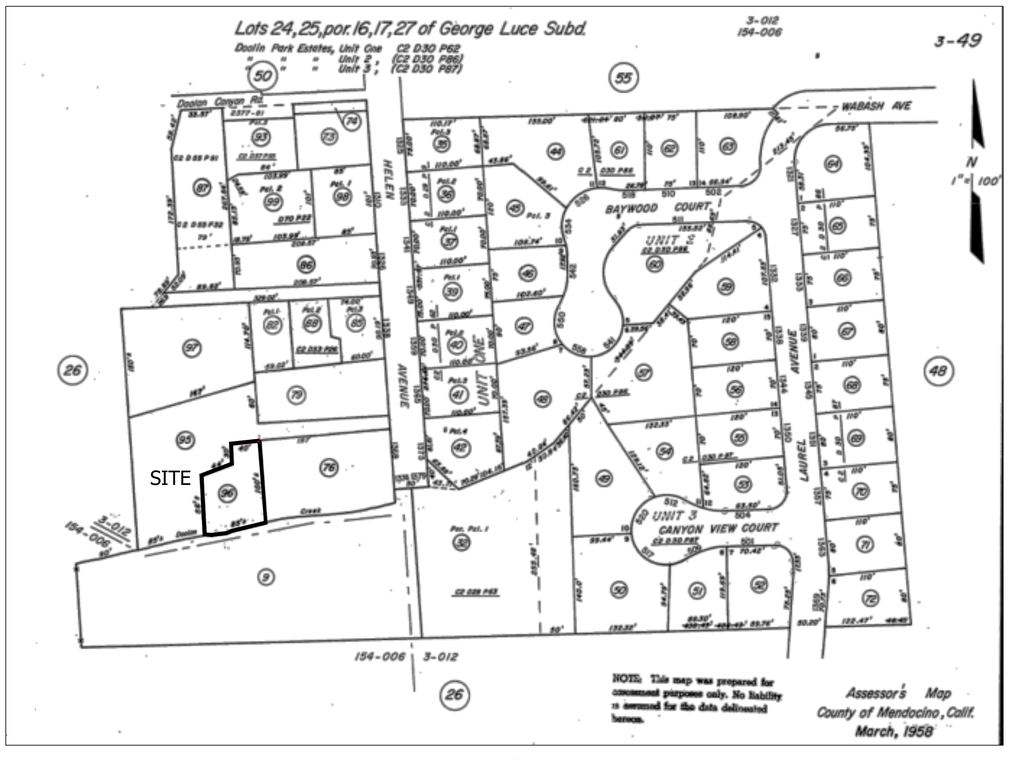
Project Information

PROJECT ADDRESS:	1364 HELEN AVENUE, UKIAH, CA
OWNER/DEVELOPER :	CHRIS AND MIRANDA DABBS 733 LAKE MENDOCINO DRIVE UKIAH, CA 95482 (707) 391-4046
CIVIL ENGINEER :	THOMAS J. BILLETER, P.E. 2800 CLEVELAND AVENUE SANTA ROSA, CA 95403 (707) 542-4321
ACRES :	0.17 ACRES

Purpose

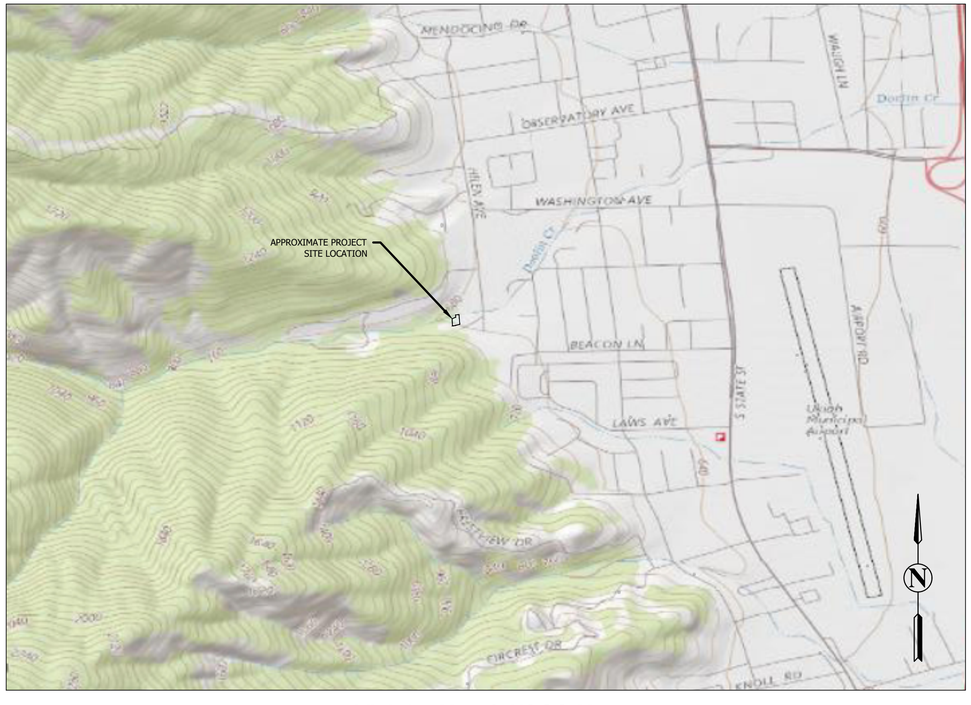
THE PURPOSE OF THIS PROJECT IS TO RESTORE AND STABILIZE A PORTION OF A CREEK BANK THAT IS ERODING.

Sheet Index



Assessor's Parcel Map

NTS



Vicinity Map & USGS Map

NTS

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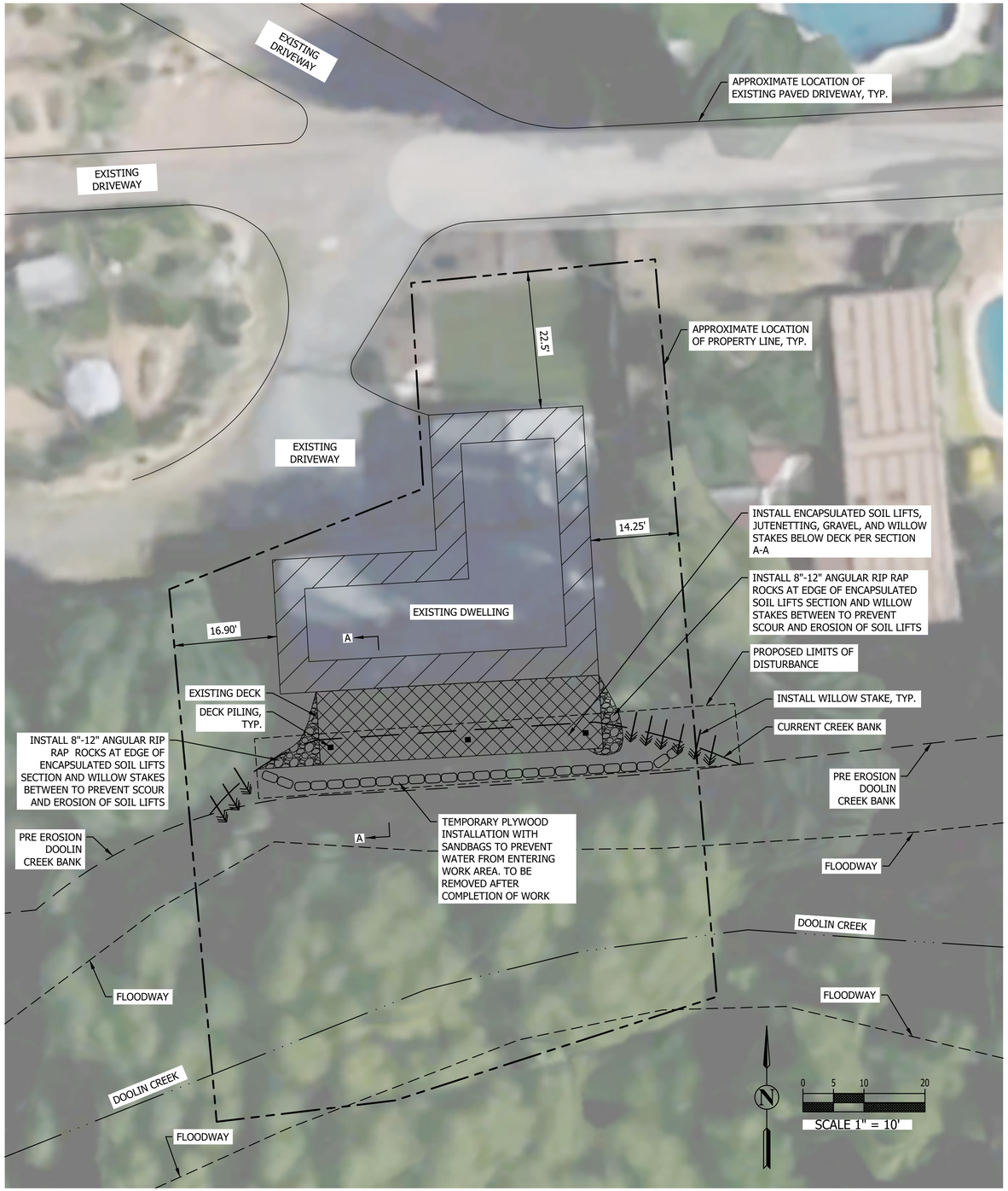

CREEK BANK REPAIR PLAN
SCALE: 1" = 10'

NOTES:

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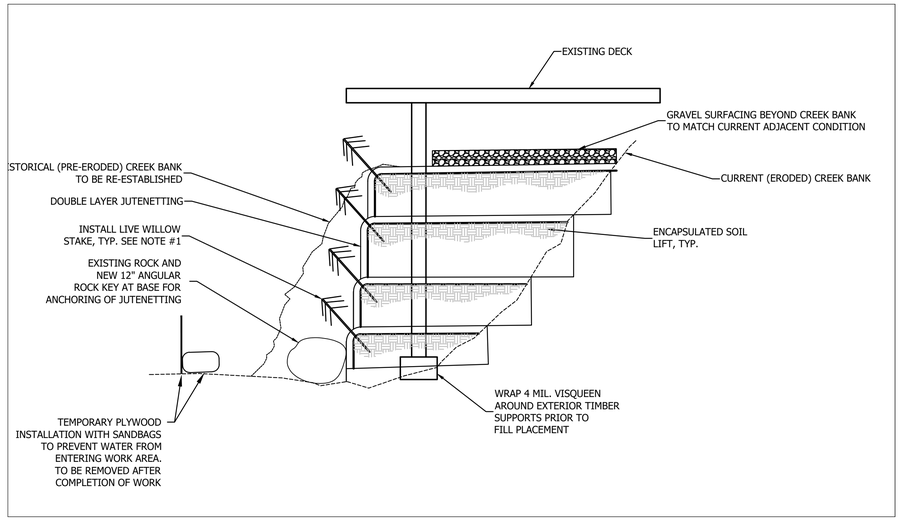
HATCH LEGEND

EXISTING DECK



NOTE:

SEE SIMILAR TEMPLATE, FIGURE 6-4 OF CHAPTER 6 OF THE STREAM MAINTENANCE MANUAL FOR NAPA COUNTY.

NO WILLOW STAKES TO BE INSTALLED IN REPAIR AREAS UNDER EXISTING DECK.
WILLOW STAKES TO BE INSTALLED AT 24" SEPARATION ON-CENTER FOR LENGTH OF IMPROVEMENTS.
DIAMETER OF STAKES TO BE 1" MINIMUM. EMBED STAKES AT LEAST 75% OF LENGTH INTO BACKFILL SOIL.

CREEK BANK REPAIR - SECTION A-A
NOT TO SCALE

CREEK BANK REPAIR CONSTRUCTION METHOD:

THE JUTE NETTING WILL BE INSTALLED BY FIRST PREPPING THE CREEK BANK AND CUTTING AWAY THE EXISTING SLOPE TO CREATE A BASE FOR THE FIRST LAYER OF FILL. THE EXTERIOR TIMBER SUPPORTS WILL BE WRAPPED WITH 4 MILLIMETER VISQUEEN PRIOR TO PLACEMENT OF FILL SOIL. THE DOUBLE LAYER JUTE NETTING WILL THEN BE ANCHORED IN PLACE BY 12" DIAMETER ANGULAR REVETMENT ROCK MATERIAL. THE NETTING WILL THEN BE PULLED BACK TOWARDS THE CREEK TO ALLOW FOR PLACEMENT OF 12" OF FILL SOIL. ONCE THE FIRST LAYER IS COMPLETE, THE ANCHORED JUTE NETTING WILL BE DRAPED OVER THE FILL SOIL AND ANOTHER PIECE OF NETTING WILL BE PLACED ON TOP TO BEGIN THE NEXT LAYER. THE NETTING WILL BE PULLED TOWARDS THE CREEK TO ALLOW FOR FILL AND THE PROCESS WILL BE REPEATED FOR EACH LAYER. WILLOW STAKES WILL BE PLACED AT EVERY JUNCTION OF SOIL LAYERS, 24" ON CENTER, FOR LENGTH OF IMPROVEMENTS TO PROVIDE SOFT REVETMENT AND A LONG TERM SOLUTION. SEE DETAIL BELOW FOR MORE INFORMATION ABOUT WILLOW STAKES. ADDITIONAL GRAVEL SURFACING WILL BE ADDED TO THE TOP SURFACE BEYOND THE CREEK BANK TO MATCH CURRENT ADJACENT CONDITIONS.

WILLOW PLANTING NOTES:

PROPOSED WILLOWS SHALL COME FROM NURSERY STOCK GROWN FROM LOCALLY-SOURCED ACORNS/SEEDS, OR FROM ACORNS/SEEDS GATHERED LOCALLY, PREFERABLY FROM THE SAME WATERSHED IN WHICH THEY ARE PLANTED.

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2 OF 2

1.0 INTRODUCTION

This report presents the results of a biological resources assessment conducted for property located at 1364 Helen Avenue in Ukiah, Mendocino County, California. The property is located on Assessor Parcel 003-490-96 approximately ½ mile west of the Ukiah Municipal Airport in a residential area adjacent to Doolin Creek at the eastern side of Cleland Mountain.

The purpose of the assessment is to identify special-status plant and wildlife species and sensitive habitats (including wetlands) that have the potential to occur on or in the vicinity of the study area to determine if the proposed bank stabilization project adjacent to the residence could potentially affect these resources. Based on information and data collected for the analysis, appropriate mitigation measures designed to minimize and/or avoid potential biological resource impacts are provided.

The property is accessed via a private drive from Helen Avenue and covers 0.17 acre (Figure 1). Doolin Creek flows through the southern portion immediately adjacent to the existing residence. The southern property line extends to the southern floodplain limits of the parcel as shown on the attached engineering plans. The creek bank adjacent to the residence has eroded significantly during heavy rain events and threatens the integrity of the existing deck and residence. A bank stabilization project is proposed to repair the bank to protect the residence.

A description of each of the property is provided below followed by the results of the assessment.

2.0 SITE DESCRIPTION

The proposed work area occurs immediately adjacent to the house and occurs under the existing deck along the creek bank for a distance of approximately 90 feet. Doolin Creek measures approximately 15 feet wide in the vicinity of the repair. The low flow channel measures approximately 4 feet wide and there was water present at the time of the site evaluation on November 8, 2018. The eroded bank underneath the existing deck has been covered with plastic and rocks placed to secure the plastic with the intent of preventing further erosion.

The creek flows from the hills to the west in an easterly direction through the property and eventually to the Russian River. The overstory is comprised primarily of mature California bay trees and there is an understory of mostly non-native blackberry. The channel bottom is cobble and rock-lined.

Banks covered with plastic and secured to prevent further erosion

Looking downstream; eroding bank on left

Looking upstream from deck area

3.0 WETLANDS ASSESSMENT

3.1 Corps of Engineers Jurisdictional Criteria Review

Unless exempt from regulation, all proposed discharges of dredged or fill material into waters of the United States require U.S. Army Corps of Engineers (Corps) authorization under Section 404 of the Clean Water Act (33 U.S.C. 1344) and Clean Water Act Section 401 authorization from the Regional Water Quality Control Board (RWQCB). Waters of the United States generally include tidal waters, lakes, ponds, rivers, streams (including intermittent streams), wetlands (excluding isolated wetlands for the Corps), and farmed wetlands.

The Corps identifies wetlands using a "multi-parameter approach" which requires positive wetland indicators in three distinct environmental categories: hydrology, soils, and vegetation. The *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West*, which was released in early 2007 and revised in 2008 (version 2.0), is utilized when conducting jurisdictional wetland determinations in areas identified within the boundaries of the Arid West (U.S. Army Corps of Engineers, 2008). The project site falls within the Arid West region and wetlands identified on the site were delineated using that and the federal guidance.

3.1.1 Potential Wetlands

Section 328.3 of the Federal Code of Regulations defines wetlands 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."

EPA, 40 CFR 230.3 and CE, 33 CFR 328.3 (b)

The three parameters used to delineate wetlands are the presence of hydrophytic vegetation, wetland hydrology, and hydric soils. According to the Corps Manual, for areas not considered “problem areas” or “atypical situations”:

"....[E]vidence of a minimum of one positive wetland indicator from each parameter (hydrology, soil, and vegetation) must be found in order to make a positive wetland delineation."

Vegetation

Plant species identified are assigned a wetland status according to the U.S. Fish and Wildlife Service list of plant species that occur in wetlands (Reed 1988). This wetland classification system is based on the expected frequency of occurrence in wetlands as follows:

OBL	Always found in wetlands	>99% frequency
FACW	Usually found in wetlands	67-99%
FAC	Equal in wetland or non-wetlands	34-66%
FACU	Usually found in non-wetlands	1-33%
UPL/NL	Upland/Not listed (upland)	<1%

The Corps Manual and Supplements require that a three-step process be conducted to determine if hydrophytic vegetation is present. The first step is the Dominance Test (Indicator 1); the second is the Prevalence Index (Indicator 2); the third is Morphological Adaptations (Indicator 3). The Dominance Test requires the delineator to apply the “50/20 rule”. The dominant species are chosen independently from each stratum of the community. In general, dominant species are determined for each vegetation stratum from a sampling plot of an appropriate size surrounding the sample point. Dominants are defined as the most abundant species that individually or collectively account for more than 50 percent of the total vegetative cover in the stratum, plus any other species that, by itself, accounts for at least 20 percent of the total cover. If greater than 50 percent of the dominant species has an OBL, FACW, or FAC status, the sample point meets the hydrophytic vegetation criterion.

If the sample point fails the 50/20 rule and both hydric soils and wetland hydrology are not present, then the sample point does not meet the hydrophytic vegetation criterion, unless the site is a problematic wetland situation. However, if the sample point fails Indicator 1, but hydric soils and wetland hydrology are both present, the delineator must apply the Indicator 2, Prevalence Index. The Indicator 3, Morphological Adaptations, is rarely used in this region.

Hydrology

The Corps jurisdictional wetland hydrology criterion is satisfied if an area is inundated or saturated for a period sufficient to create anoxic soil conditions during the growing season (a minimum of 14 consecutive days). Evidence of wetland hydrology can include primary indicators, such as visible inundation or saturation or oxidized root channels, or secondary indicators such as the FAC-neutral test or the presence of a shallow aquitard. Only one primary indicator is required to meet the wetland hydrology criterion; however, if secondary indicators are used, at least two secondary indicators must be present to conclude that an area has wetland hydrology.

Soils

The Natural Resource Conservation Service (NRCS) defines a hydric soil as follows:

"A hydric soil is a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part." Federal Register July 13, 1994, U.S. Department of Agriculture, NRCS

Soils formed over long periods under wetland (anaerobic) conditions often possess characteristics that indicate they meet the definition of hydric soils. The supplement provides a list of the hydric soil indicators that are known to occur in region.

3.1.2 Waters of the U.S. (Other Waters)

"Other waters" or "Waters of the United States" (WUS) other than wetlands are also potentially subject to Corps jurisdiction. WUS subject to Corps jurisdiction include ponds, lakes, rivers, streams (including ephemeral and intermittent streams), and all areas below the High Tide Line (HTL) subject to tidal influence. Jurisdiction in non-tidal areas extends to the ordinary high water mark (OHWM) defined as:

"*...that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impresses on the bank, shelving, changes in the characteristics of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.*"

Federal Register Vol. 51, No. 219, Part 328.3 (e). November 13, 1986

3.2 North Coast Regional Water Quality Control Board

The Regional Water Quality Control Board regulates waters of the State pursuant to Sections 13260(a)(1) and 13050(e) of the State Water Code, and the Porter Cologne Act. In addition, anyone proposing to conduct a project that requires a federal permit or involves dredge or fill activities that may result in a discharge to U.S. surface waters and/or "Waters of the State" are required to obtain a Clean Water Act (CWA) Section 401 Water Quality Certification and/or Waste Discharge Requirements (Dredge/Fill Projects) from the Regional Water Quality Control Board, verifying that the project activities will comply with state water quality standards. The most common federal permit for dredge and fill activities is a CWA Section 404 permit issued by the Corps of Engineers (North Coast Regional Water Quality Control Board, 2007). In general, the RWQCB employs similar wetland delineation techniques for identifying wetland areas potentially subject to its regulation.

Section 401 of the CWA grants each state the right to ensure that the State's interests are protected on any federally permitted activity occurring in or adjacent to Waters of the State. In California, the Regional Water Quality Control Boards (Regional Board) are the agency mandated to ensure protection of the State's waters. So if a proposed project requires a U.S. Army Corps of Engineers CWA Section 404 permit, falls under other federal jurisdiction, and has the potential to impact Waters of the State, the Regional Water Quality Control Board will regulate the project and associated activities through a Water Quality Certification determination (Section 401) (North Coast Regional Water Quality Control Board, 2007).

However, if a proposed project does not require a federal permit, but does involve dredge or fill activities that may result in a fill discharge to "Waters of the State", the Regional Board has the option to regulate the project under it's state authority (Porter-Cologne) in the form of Waste Discharge Requirements or Waiver of Waste Discharge Requirements (North Coast Regional Water Quality Control Board, 2007). Waters of the State include isolated wetlands, which are not regulated by the Corps.

3.3 California Department of Fish and Wildlife

Activities that result in the substantial modification of the bed, bank or channel of a stream or lake may require a Streambed Alteration Agreement from the California Department of Fish and Wildlife (CDFW) pursuant to Sections 1600-1607 of the California Fish and Game Code. On streams, creeks and rivers, the extent of CDFW jurisdiction extends from the top of bank to top of bank or the outer limits of the riparian canopy, whichever is wider.

3.4 Background review

Prior to conducting the on-site wetlands assessment within the study area, various background materials relating to the site were reviewed. These include aerials from Google earth and the Ukiah U.S.G.S. 7.5-minute quadrangle. Doolin Creek is visible on Google Earth and is shown on the Ukiah quadrangle as a blue-line (perennial) creek. No other potential wetland features were identified in the background review.

3.5 Wetland Assessment and Results

On November 8, 2018 I conducted a wetland assessment on the property in the area of the proposed bank stabilization. Doolin Creek measures approximately 15 feet wide at the ordinary high water mark in the vicinity of the proposed repair. The low flow channel measures approximately 4 feet wide; was water present in the low flow channel at the time of the site evaluation.

The creek flows from the hills to the west in an easterly direction through the property and eventually to the Russian River. The overstory is comprised primarily of mature bay trees and there is an understory of mostly non-native blackberry. The channel bottom is cobble and rock-lined.

Because there was no hydrophytic vegetation present in or immediately adjacent to the creek at the location of the proposed bank stabilization project and because the creek is cobble-lined and rock-lined, it may be classified as a “waters” (not a wetland) as described below. Therefore, no soil samples were taken at this location. Doolin Creek may be classified as a “waters” because it has a defined ordinary high water mark in the proposed project area and therefore it is potentially subject to Corps jurisdiction.

Doolin Creek may be classified as a “waters” because it has a defined ordinary high water mark in the proposed project area and therefore it is potentially subject to the North Coast Regional Water Quality Control Board’s jurisdiction.

At the project site, Doolin Creek falls within the potential jurisdiction of the CDFW. Because there is a mature riparian canopy at this location, the limits of CDFW jurisdiction would extend to the outer limits of the canopy (i.e. the dripline).

Because the proposed bank stabilization project will occur in areas potentially subject to Corps of Engineers, North Coast Regional Water Quality Control Board, and California Department of Fish and Wildlife jurisdictions, authorizations from these agencies will need to be obtained prior to constructing the work.

4.0 SPECIAL-STATUS SPECIES REGULATORY FRAMEWORK

Special-status plants and animals are legally protected under the State and Federal Endangered Species Acts or other regulations, and species that are considered rare by the scientific community. Special status species include those plants and wildlife species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing under the federal Endangered Species Act (ESA) or California Endangered Species Act (CESA). These acts afford protection to both listed and proposed species. In addition, California Department of Fish and Wildlife (CDFW) Species of Special Concern, which are species that face extirpation in California if current population and habitat trends continue, U.S. Fish and Wildlife Service (USFWS) Birds of Conservation Concern, and CDFW special status invertebrates are all considered special status species. Although CDFW Species of Special Concern generally have no special legal status, they are given special consideration under the California Environmental Quality Act (CEQA). In addition to regulations for special status species, most birds in the United States, including non-status species, are protected by the Migratory Bird Treaty Act of 1918. Under this legislation, destroying active nests, eggs, and young is illegal.

To obtain up-to-date conservation information U.S. Fish and Wildlife Service (USFWS) species lists were reviewed for federally listed species (including Proposed and Candidate species) and California Department of Fish and Wildlife (CDFW) species lists for State of California listed species were also reviewed. Special-status species also include those with California Rare Plant Rank (CRPR) 1A (Plants Presumed Extinct in California), CRPR 1B (Plants Rare, Threatened, or Endangered in California and Elsewhere), or CRPR 2 (Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere), as indicated by the CNPS *Inventory* (CNPS 2018). Impacts to these species must be reviewed under the provisions of the California Environmental Quality Act (CEQA) Guidelines.

Rare plants are defined here to include: (1) all plants that are federal- or state listed as rare, threatened, or endangered, or a candidate for listing; (2) all plants ranked by the California Natural Diversity Database (CNDDB) and the California Native Plant Society (CNPS) as California Rare Plant Rank (CRPR) 1,2, 3, or 4. Locally rare species if present, are also included in this report.

The methods and results of the special-status species assessment follow.

4.1 Special-status Plants

A database query of the CNDDB and the CNPS Electronic Inventory within a 5-mile radius of the parcels were conducted to assess the potential for sensitive communities and/or special-status plant species that may have the potential to occur in the Project Area. These species are listed on Figure 2.

The area to be repaired has significantly eroded and the original topsoil and its potential seedbank is no longer present. At the time of the November 2018 assessment, no vegetation was growing within the proposed work area since this area was covered in plastic and the original topsoil was gone (see photograph on page 10). As a result, there is no potential for special-status plant species to be present within the proposed repair area.

Vegetation observed adjacent to the work area includes common riparian species including non-native blackberry (*Rubus ursinus*), myrtle (*Vinca* sp.) and California bay (*Umbellularia californica*).

4.2 Special-status Animals

4.2.1 Background Review

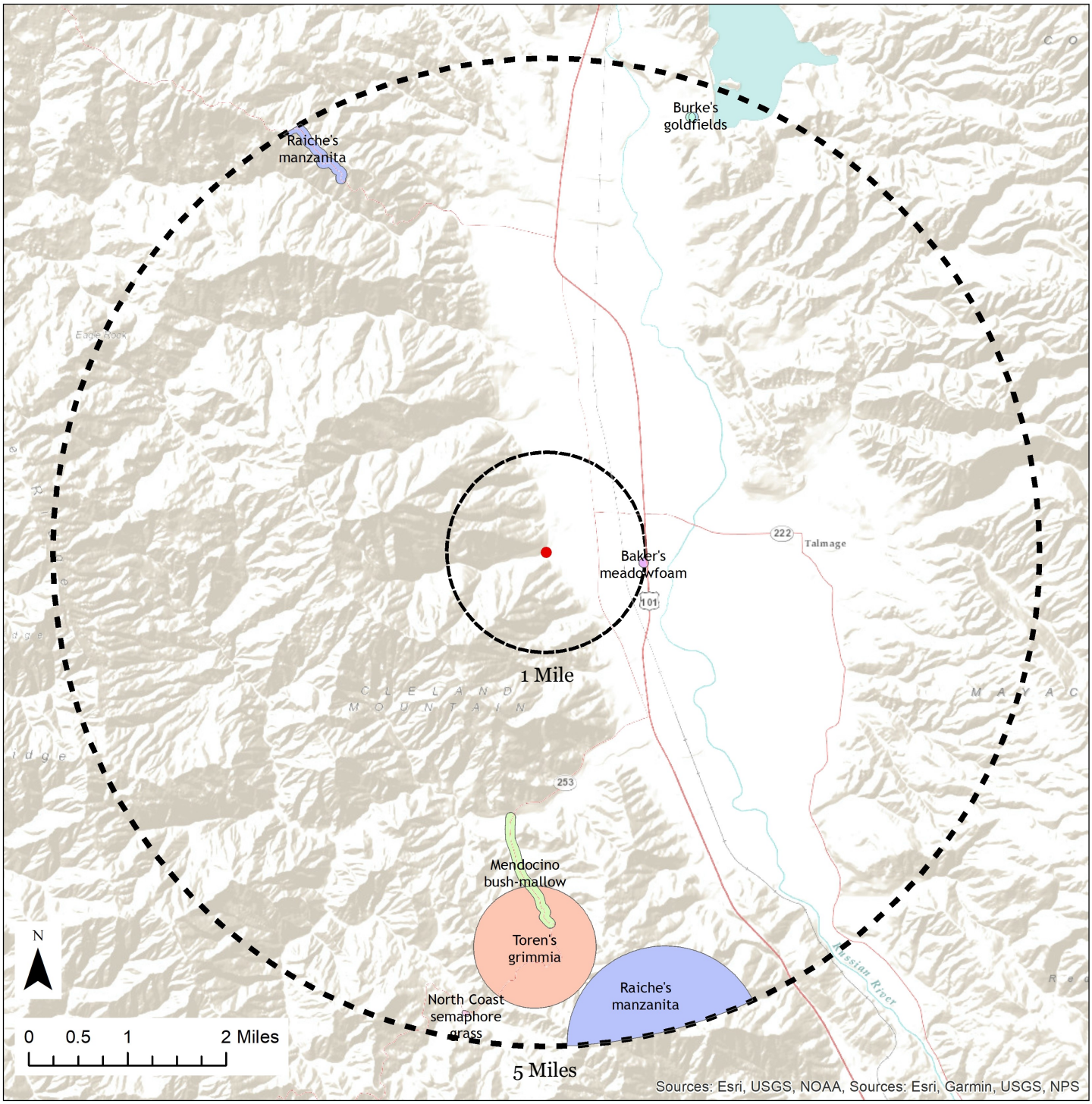
The California Department of Fish and Wildlife's Natural Diversity Database (CNDDB) was reviewed (Ukiah and surrounding quadrangles) to identify special-status species potentially occurring on or in the vicinity of the project site. Species recorded as occurring within a 5-mile radius are illustrated on Figure 3.

4.2.2 Field Reconnaissance

Located on the western limits of the City of Ukiah east of Cleland Mountain, the project site and environs provide habitat for a variety of terrestrial wildlife including coyote, fox, rabbits, squirrels and skunks and a variety of avian species including downy woodpecker, Steller's jay, red-tailed hawk and turkey vulture.

On November 8, 2018 a reconnaissance level survey of the site was conducted. The focus of the survey was to identify whether suitable habitat elements for each of the special status species documented in the surrounding vicinity or in the range of the project site are present on the project site whether the project would have the potential to result in impacts to any of these species and/or their habitats either on- or off-site. Habitat elements examined included the presence of: dispersal habitat, foraging habitat, refugia or estivation habitat, and breeding (or nesting) habitat.

Figure 2: Special Status Plant Species within 1 Mile & 5 Miles of the Project Site
1364 Helen Ave., Ukiah , CA

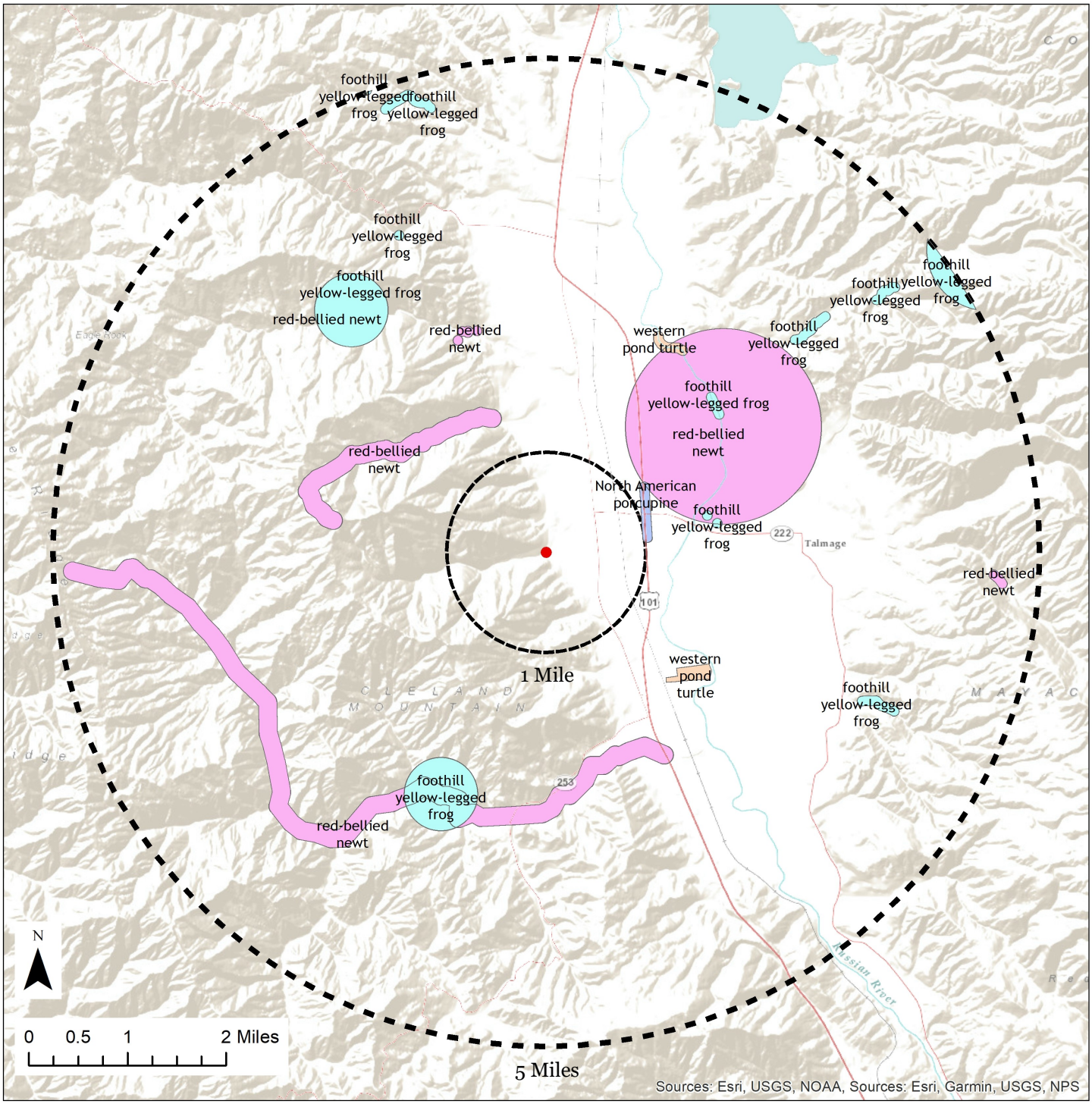


Date: 11-12-2018
Data: Sol Ecology Inc., CDFW, astricklin_cou, iwagoladmin_cou

Base: ESRI
GIS: AJG

SOL ECOLOGY
solecology.com

Figure 3: Special Status Animal Species within 1 Mile & 5 Miles of the Project Site
1364 Helen Ave., Ukiah , CA



Project Location
1 Mile Buffer
5 Mile Buffer
North American porcupine
foothill yellow-legged frog
red-bellied newt
western pond turtle

Date: 11-12-2018
Data: Sol Ecology Inc., CDFW, astricklin_cou, iwagoladmin_cou

Base: ESRI
GIS: AJG

SOL ECOLOGY
solecology.com

4.2.3 Results

Four special-status wildlife species have been documented within five miles of the Project Site (Figure 2). Based on the biological communities present on the project site and species identified in the 9 quadrangle search on the CNDDB, it was determined that the site has the potential to provide potential habitat for nesting birds, steelhead trout, foothill yellow-legged frog, red-bellied newt and western pond turtle. Chinook salmon, Russian river tule perch, Pacific lamprey, and western pearlshell mussel potentially occur in the Russian River approximately one mile downstream of the project site. The remaining species documented in the area are not likely to occur due to absence of suitable habitat (Table 1).

Special-status species that may potentially occur in the project area are described below.

Nesting Birds

The trees on and adjacent to the site provide potential nesting habitat for a variety of nesting birds and raptors. Birds and raptors are protected under the federal Migratory Bird Treaty Act (50 CFR 10.13). Their nest, eggs, and young are also protected under California Fish and Wildlife Code (§3503, §3503.5, and §3800). In addition, raptors such as the white-tailed kite (*Elanus leucurus*) are "fully protected" under Fish and Wildlife Code (§3511). Fully protected raptors cannot be taken or possessed (that is, kept in captivity) at any time. Nesting season for birds in California generally occurs between February 1st and August 1st.

Western pond turtle

The Western pond turtle (*Emys marmorata)*(aka Pacific pond turtle) is the only native freshwater turtle in California. The soecies is considered a Species of Special Concern by the California Department of Fish and Wildlife. This turtle is uncommon to common in suitable aquatic habitat throughout California. Western pond turtle inhabits annual and perennial aquatic habitats including man-made habitats, such as coastal lagoons, lakes, ponds, marshes, rivers, and streams from sea level to 5,500 feet in elevation. This species requires low-flowing or stagnant freshwater aquatic habitat with suitable basking structures, including rocks, logs, algal mats, mud banks and sand. To escape periods of high water flow, high salinity, or prolonged dry conditions, Western pond turtle may move upstream and/or take refuge in vegetated, upland habitat for up to four months, though aquatic habitat is preferred (Rathbun et al. 2002). Western pond turtle nests from late April through July. This species requires open, dry upland habitat with friable soils for nesting and prefer to nest on unshaded slopes within 5 to 100 meters of suitable aquatic habitat. Females venture from water for several hours in the

late afternoon or evening during the nesting season to excavate a nest, lay eggs, and bury the eggs to incubate and protect them. Hatchlings generally emerge in late fall but may overwinter in the nest and emerge in early spring of the following year. Western pond turtle is documented within 1 mile of the site and may frequent Doolin Creek.

Foothill yellow-legged frog (Rana boylii)

Doolin Creek provides potential habitat for Foothill yellow-legged frog (FYLF). FYLF is a State Candidate Threatened species and a Species of Special Concern. This species occurs in the Coast ranges from northern California to Los Angeles and is found in or near creeks and streams with rocky substrates in a variety of habitats. This species is infrequently found away from a permanent water source, even on rainy nights (Zeiner, 1988). There are at least 12 recorded occurrences of FYLF within 5 miles of the project site.

Red-bellied Newt (Taricha rivularis)

Doolin Creek provides potential habitat for red-bellied newt, which is listed as a Species of Special Concern by CDFW. This species is found in coastal drainages from Humboldt County to Sonoma County and inland to Lake County. This species lives in terrestrial habitats and typically breeds in streams with moderate flow and clean rocky substrate.

Steelhead Trout (Oncorhynchus mykiss)

Steelhead trout are part of the Central California Coast ESU (evolutionarily significant unit); this species is federally listed as threatened. Steelhead are known to occur in Doolin Creek. They generally prefer fast water in small-to-large mainstem rivers, and medium-to-large tributaries. In streams with steep gradient and large substrate, they spawn between these steep areas, where the water is flatter and the substrate is small enough to dig into. Steelhead trout may occur in Doolin Creek in the project area and is known to occur in the Russian River approximately 1 mile east of the project site.

Chinook salmon (Oncorhynchus tshawytscha)

Chinook salmon California Coast (Evolutionary Significant Unit) ESU is a federally threatened species that is found in rivers and streams south of the Klamath River to the Russian River. Chinook usually spawn in large deep pools, typically with bedrock bottoms and moderate creek velocities. Chinook salmon is known to occur in the Russian River approximately 1 mile east of the project site.

Russian River tule perch (Hysterocarpus traskii traskii)

The Russian river tule perch is listed a Species of Special Concern by CDFW. This species is known to low elevations streams of the Russian River system and could potentially occur in Doolin Creek when water levels are deep enough to support fish species.

Pacific Lamprey (Lampreta tridenta)

The Pacific lamprey (*Lampetra tridentata*) is listed as a Species of Special Concern by CDFW. Pacific lamprey are anadromous with a free-swimming parasitic or predatory marine adult stage, where they may feed on ocean fish such as salmon and flatfish, and a freshwater immature stage that is a benthic filter feeder, feeding on benthic detritus. Spawning takes place in higher gradient, gravel/cobble bed, and cool water streams.

The Russian River located approximately one mile downstream of the project site provides aquatic habitat conditions that are conducive to use by Pacific Lamprey.

Western pearlshell (Margaritifera falcate)

Western pearshell mussel does not have a legal status under federal or California law. It is not considered a species of special concern by CDFW but it is identified as an S1 to S2 rank between “imperiled” and “critical imperiled” on the CNDDB. This bivalve occurs from Alaska south to California and inhabits the substrate of perennial creeks and rivers. Wewstern pearshell mussel may occur in the Russian River where substrate is suitable.

Table 1. Special-status animal species with potential to occur in the vicinity of proposed bank stabilization project 1364 Helen Ave, Ukiah, California

Animal*	Status	Habitat	Potential for Occurrence on of In Vicinity of Site
Amphibians and Reptiles			
Western pond turtle (*Emys marmorata*)	CSC	Associated with permanent or nearly permanent water in a wide variety of habitats. Requires basking sites, nest sites may be found up to 0.5 km from water.	May occur in Doolin Creek.
Foothill yellow-legged frog (*Rana boylii*)	SCT, SSC	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats.	Potential for occurrence in Doolin Creek.
Red-bellied newt (*Taricha rivularis*)	SSC	Coastal drainages from Humboldt County to Sonoma County and inland to Lake County. Lives in terrestrial habitats and typically breeds in streams with moderate flow and clean rocky substrate.	Potential for occurrence in Doolin Creek.
Fish			**Fish**
Coho salmon – Central California coast ESU (*Oncorhynchus kisutch*)	FE, SE	Federal listing populations between Punta Gorda and San Lorenzo River. State listing populations south of Punta Gorda. Prefer cold water streams with dense riparian canopies and cobble bottom for egg laying.	No recorded occurrences within Doolin Creek.
Steelhead-Central California Coast ESU (*Oncorhynchus mykiss irideus*)	FT	Anadromous. Adults and fry recorded in upstream portions of creeks north of San Pablo Bay. Juveniles may rear in lower reaches of larger river systems and Bay before moving out to sea. Prefer cold water streams with dense riparian canopies and cobble bottom for egg laying.	Potential for occurrence in Doolin Creek. Known to the Russian River approximately 1 mile downstream of the project site.

Animal*	Status	Habitat	Potential for Occurrence on of In Vicinity of Site
Fish			
Coastal Chinook salmon (*Oncorhynchus tshawytscha)*	FT	Anadromous. Found in rivers and streams south of the Klamath River to the Russian River. Spawns typically in large deep pools, typically with bedrock bottoms and moderate velocities.	Known to occur in the Russian River.
Pacific lamprey (*Entosphenus tridentatus*)	CSC	Found in swift currents in gravel-bottomed streams.	Potential for occurrence in the Russian River.
Russian River tule perch (*Hysterocarpus traski pomo*)	CSC	Low elevation streams of the Russian River system.	Known to occur in the Russian River.
Birds**			
Tricolored blackbird (*Agelaius tricolor*)	SSC, USFWS CE	Colonial nester. Most numerous in the Central Valley & Vicinity. Requires open water, protected nesting substrate, and foraging area with insect prey within a few kilometers of the colony.	No suitable habitat on site.
White-tailed kite (*Elanus leucurus*)		(Nesting) rolling foothills/valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland.	May pass through project area but unlikely to occur on site.
Purple martin	CSC	Inhabits woodlands, low elevation coniferous forest of Douglas	No suitable habitat on site.

(*Progne subis*)		fir, ponderosa pine, and Monterey pine. Nests in old woodpecker cavities mostly, and in human structures.	

Animal*	Status	Habitat	Potential for Occurrence on or in Vicinity of Site
Mammals			
Townsend's big-eared bat (*Corynorhinus townsendii*)	CSC, WBWG High Priority	Throughout California in a variety of habitats. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	No suitable habitat on site.
Pallid bat (*Antrozous pallidus*)	SSC, WBWG_H	Deserts, grasslands, woodlands and forests. Most common in open dry habitats with rocky areas for roosting. Very sensitive to disturbance of roosting sites.	No suitable habitat on site.
Fisher – West Coast DPS (*Pekania pennanti*)	FCT, SCT	Intermediate to large-tree stages of coniferous forests and deciduous riparian area within high percent canopy closure. Uses cavities, snags, logs and rocky areas for cover and denning.	Southernmost range occurs in old growth forest near Pine Mountain on the St. Helena USGS quadrangle.
American porcupine (*Erethizon dorsatum*)	CSC	Found in a variety of habitats from forest to chaparral to desert.	Low potential for occurrence within proposed work zone.
Invertebrates			
Western pearlshell (*Margaritifera falcata*)	S1 S2	Bivalve mollusk that inhabit the substrate of perennial creeks and rivers with clean water at depths generally of 1.5–5.0 feet. The mussels are filter feeders that consume plankton, algae, and bacteria suspended in the water column.	Potential for occurrence in the Russian River.

*Note: FSC = U.S. Fish and Wildlife Service Species of Concern; FE = federally listed as endangered; FT = federally listed as threatened; SE = state listed as endangered; ST = state listed as threatened; SFP = State fully protected (may not be taken or possessed without a permit from the Fish and Game Commission and/or CDFW). CSC = California species of special concern; CDFS = considered sensitive by the California Department of Forestry. W BWG (Western Bat Working Group) high priority = represents those species considered the highest priority for funding, planning, and conservation actions. These species are imperiled or are at high risk of imperilment. S1- 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. S2 - Imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or state.

** All migratory birds are protected by the Migratory Bird Treaty Act (50 CFR 10), which makes it unlawful to take, possess, buy, sell, purchase or barter any migratory bird, including feathers or other parts, nests, eggs or products, except as allowed by implementing regulations (50 CFR 21). In addition, Section 2080 of the California Fish and Game Code prohibits the killing of a listed species, and Sections 3503, 3503.5, and 3800 of the Fish and Game Code prohibit the take, possession, or destruction of birds, their nests, or eggs.

Based on review of the CNDDB Ukiah and surrounding quadrangles November 2018. Updated December 2018.

4.2.4 Recommendations and Mitigation Measures

The following mitigation measures are recommended for minimizing potential impacts to special-status species potentially occurring on or in the vicinity of the project site.

Nesting Birds

If project activities occur during the breeding season (February 1 through August 31), a qualified biologist will conduct a breeding bird survey no more than 14 days prior to project activities to determine if any birds are nesting in trees adjacent to the study area.

If active nests are found close enough to the study to affect breeding success, the biologist will establish an appropriate exclusion zone around the nest. This exclusion zone may be modified depending upon the species, nest location, and existing visual buffers. If the next is too close to the proposed work area, work may be delayed until the young have fledged.

If initial work is delayed or there is a break in project activities of greater than 14 days within the bird-nesting season, then a follow-up nesting bird survey should be performed to ensure no nests have been established in the interim.

Special-status Amphibians and Reptiles

- Prior to construction, all workers on the crew should be trained by a qualified biologist as to the sensitivity of the FYLF, red-bellied newt and WPT and other special-status species potentially occurring on the property.
- A qualified wildlife biologist will be present during placement of sand bags to create a dry work zone if this is required. If any federally or state listed special-status species are observed prior to setting the sand bags, the animal will be allowed to move away from the project area on its own accord. If pond turtle or red-bellied newt are observed, they can be moved by the biologist to a safe location up or downstream away from the work area.
- No construction activities will occur during rain events, defined as ¼ inch of rain falling within a 24-hour period. Construction activities may resume 24 hours after the end of the rain event.
- Work should not be conducted at the areas proposed for bank repair any time 30 minutes before sunrise or sunset.
- The work area will be checked daily prior to the start of work to ensure that no special-status species are within the proposed work zone.

Steelhead, Chinook salmon and Western pearlshell

While steelhead have the potential to occur in Doolin Creek, proposed activities associated with the bank stabilization will occur outside of the main channel during the dry season. Project construction in this area will be limited between June 15 and October 15 when steelhead are expected not to be in the creek and when the majority of the creek channel is dry.

Standard best management practices will be utilized during construction and will include the use of silt fencing or wattles to minimize or avoid potential erosion into the creek channel. Any loose soils will be removed by hand to an area outside of the work area to an upland location. All disturbed slopes will be broadcast seed with a seed mix of native species associated with streambanks in northern California. Bank revegetation including the planting of willows within the rocks to be placed for bank stabilization will also minimize long-term potential impacts associated with erosion and will also reduce potential downstream siltation impacts that could potentially affect special-status fish and the western pearlshell mussel.

CNDDB

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Ukiah (3912322) OR Elledge Peak (3912312) OR Boonville (3912313) OR Orrs Springs (3912323) OR Laughlin Range (3912333) OR Redwood Valley (3912332) OR Potter Valley (3912331) OR Cow Mountain (3912321) OR Purdys Gardens (3912311))

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Accipiter gentilis northern goshawk	G5 S3	None None	BLM_S-Sensitive CDF_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive	2,500 2,500	432 S:1	0	0	0	0	0	1	0	1	1	0	0
Agelaius tricolor tricolored blackbird	G2G3 S1S2	None Candidate Endangered	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_EN-Endangered NABCI_RWL-Red Watch List USFWS_BCC-Birds of Conservation Concern	900 1,054	951 S:5	0	1	0	0	0	4	0	5	5	0	0
Ammodramus savannarum grasshopper sparrow	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	1,000 1,000	26 S:1	1	0	0	0	0	0	1	0	1	0	0
Antrozous pallidus pallid bat	G5 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	950 950	416 S:1	0	0	0	0	0	1	1	0	1	0	0
Arborimus pomo Sonoma tree vole	G3 S3	None None	CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened	1,400 1,800	222 S:3	0	0	0	0	0	3	3	0	3	0	0
Arctostaphylos stanfordiana ssp. raichei Raiche's manzanita	G3T2 S2	None None	Rare Plant Rank - 1B.1 SB_RSABG-Rancho Santa Ana Botanic Garden SB_USDA-US Dept of Agriculture	1,600 3,410	10 S:5	1	0	0	0	0	4	4	1	5	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Blennosperma bakeri Sonoma sunshine	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_RSABG-Rancho Santa Ana Botanic Garden	945 945	24 S:1	0	0	1	0	0	0	0	1	1	0	0
Bombus caliginosus obscure bumble bee	G4? S1S2	None None	IUCN_VU-Vulnerable	900 2,700	181 S:2	0	0	0	0	0	2	2	0	2	0	0
Bombus occidentalis western bumble bee	G2G3 S1	None None	USFS_S-Sensitive XERCES_IM-Imperiled	1,400 1,400	282 S:1	0	0	0	0	0	1	1	0	1	0	0
Brasenia schreberi watershield	G5 S3	None None	Rare Plant Rank - 2B.3	1,800 1,800	43 S:1	0	0	0	0	0	1	1	0	1	0	0
Carex comosa bristly sedge	G5 S2	None None	Rare Plant Rank - 2B.1	1,360 1,360	29 S:1	0	0	0	0	0	1	1	0	1	0	0
Ceanothus confusus Rincon Ridge ceanothus	G1 S1	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive	3,300 3,300	33 S:1	0	0	0	0	0	1	1	0	1	0	0
Corynorhinus townsendii Townsend's big-eared bat	G3G4 S2	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	820 860	626 S:2	0	0	0	0	0	2	2	0	2	0	0
Emys marmorata western pond turtle	G3G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable USFS_S-Sensitive	505 1,800	1353 S:10	1	4	1	0	0	4	1	9	10	0	0
Entosthodon kochii Koch's cord moss	G1 S1	None None	Rare Plant Rank - 1B.3	900 900	4 S:1	0	0	0	0	0	1	0	1	1	0	0
Erethizon dorsatum North American porcupine	G5 S3	None None	IUCN_LC-Least Concern	587 1,533	508 S:4	0	0	0	0	0	4	0	4	4	0	0
Fritillaria roderickii Roderick's fritillary	G1Q S1	None Endangered	Rare Plant Rank - 1B.1 SB_RSABG-Rancho Santa Ana Botanic Garden	2,000 2,000	8 S:1	0	0	0	0	0	1	1	0	1	0	0
Gratiola heterosepala Boggs Lake hedge-hyssop	G2 S2	None Endangered	Rare Plant Rank - 1B.2 BLM_S-Sensitive	3,000 3,300	99 S:2	0	0	0	0	0	2	0	2	2	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Grimmia torenii Toren's grimmia	G2 S2	None None	Rare Plant Rank - 1B.3	1,065 1,900	13 S:2	0	0	0	0	0	2	1	1	2	0	0
Hesperolinon adenophyllum glandular western flax	G2G3 S2S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	1,440 3,900	48 S:4	0	0	0	0	0	4	4	0	4	0	0
Horkelia bolanderi Bolander's horkelia	G1 S1	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	2,350 2,350	13 S:1	0	1	0	0	0	0	0	1	1	0	0
Kopsiopsis hookeri small groundcone	G4? S1S2	None None	Rare Plant Rank - 2B.3	1,000 1,000	21 S:1	0	0	0	0	0	1	1	0	1	0	0
Lasthenia burkei Burke's goldfields	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_RSABG-Rancho Santa Ana Botanic Garden	620 620	35 S:1	0	0	1	0	0	0	0	1	1	0	0
Layia septentrionalis Colusa layia	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	485 485	57 S:2	0	0	0	0	1	1	2	0	1	1	0
Limnanthes bakeri Baker's meadowfoam	G1 S1	None Rare	Rare Plant Rank - 1B.1 BLM_S-Sensitive SB_USDA-US Dept of Agriculture	580 580	21 S:1	0	0	0	0	1	0	1	0	0	0	1
Malacothamnus mendocinensis Mendocino bush-mallow	GXQ SX	None None	Rare Plant Rank - 1A	700 700	1 S:1	0	0	0	0	1	0	1	0	0	1	0
Navarretia leucocephala ssp. bakeri Baker's navarretia	G4T2 S2	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive	620 1,540	58 S:3	0	0	2	0	0	1	1	2	3	0	0
Northern Interior Cypress Forest Northern Interior Cypress Forest	G2 S2.2	None None		3,240 3,240	22 S:1	0	0	0	0	0	1	1	0	1	0	0
Pandion haliaetus osprey	G5 S4	None None	CDF_S-Sensitive CDFW_WL-Watch List IUCN_LC-Least Concern	570 920	500 S:2	0	0	0	0	0	2	0	2	2	0	0
Pekania pennanti fisher - West Coast DPS	G5T2T3Q S2S3	None Threatened	BLM_S-Sensitive CDFW_SSC-Species of Special Concern USFS_S-Sensitive	1,179 2,200	738 S:2	0	1	0	0	0	1	1	1	2	0	0
Piperia candida white-flowered rein orchid	G3 S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	1,650 2,120	167 S:2	0	1	1	0	0	0	0	2	2	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Plagiobothrys lithocaryus Mayacamas popcornflower	GH SH	None None	Rare Plant Rank - 1A	950 950	2 S:1	0	0	0	0	0	1	1	0	1	0	0
Pleuropogon hooverianus North Coast semaphore grass	G2 S2	None Threatened	Rare Plant Rank - 1B.1 BLM_S-Sensitive SB_BerrySB-Berry Seed Bank SB_RSABG-Rancho Santa Ana Botanic Garden	1,160 2,400	27 S:10	0	8	2	0	0	0	0	10	10	0	0
Rana boylii foothill yellow-legged frog	G3 S3	None Candidate Threatened	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened USFS_S-Sensitive	364 2,500	2353 S:54	1	10	4	0	0	39	9	45	54	0	0
Serpentine Bunchgrass Serpentine Bunchgrass	G2 S2.2	None None			22 S:1	0	0	0	0	0	1	1	0	1	0	0
Streptanthus glandulosus ssp. hoffmanii Hoffman's bristly jewelflower	G4T2 S2	None None	Rare Plant Rank - 1B.3 BLM_S-Sensitive	1,300 1,300	10 S:1	0	0	0	0	0	1	1	0	1	0	0
Taricha rivularis red-bellied newt	G4 S2	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	580 10,000	136 S:17	0	0	0	0	0	17	7	10	17	0	0
Tracyina rostrata beaked tracyina	G2 S2	None None	Rare Plant Rank - 1B.2 USFS_S-Sensitive	850 2,600	15 S:3	0	3	0	0	0	0	0	3	3	0	0
Trifolium buckwestiorum Santa Cruz clover	G2 S2	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive SB_USDA-US Dept of Agriculture	995 995	50 S:1	0	1	0	0	0	0	0	1	1	0	0
Usnea longissima Methuselah's beard lichen	G4 S4	None None	Rare Plant Rank - 4.2 BLM_S-Sensitive	1,280 1,280	206 S:1	0	0	0	1	0	0	0	1	1	0	0
Viburnum ellipticum oval-leaved viburnum	G4G5 S3?	None None	Rare Plant Rank - 2B.3		38 S:1	0	0	0	0	0	1	1	0	1	0	0

REFERENCES

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Zeiner, David C., William F. Laudenslayer, Jr., Kenneth E. Mayer, and Marshall White. 1990. California's Wildlife, Volume I, Amphibians and Reptiles, Volume II, Birds, and Volume III, Mammals. California Statewide Habitat Relationships Systems.

ATTACHMENT C

Local Government Tribal Consultation List Request

Native American Heritage Commission
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
916-373-3710
916-373-5471 – Fax
nahc@nahc.ca.gov

Type of List Requested

☑ **CEQA Tribal Consultation List (AB 52)** – ***Per Public Resources Code § 21080.3.1, subs. (b), (d), (e) and 21080.3.2***

☐ **General Plan (SB 18)** - ***Per Government Code § 65352.3.***

Local Action Type:

___ General Plan ___ General Plan Element ___ General Plan Amendment

___ Specific Plan ___ Specific Plan Amendment ___ Pre-planning Outreach Activity

Required Information

Project Title: Doolin Creek Bank Repair and Stabilization Project

Local Government/Lead Agency: City of Ukiah

Contact Person: Michelle Irace, Planning Manager

Street Address: 300 Seminary Drive

City: Ukiah **Zip:** 95482

Phone: (707) 463-6207 **Fax:**

Email: mirace@cityofukiah.com

Specific Area Subject to Proposed Action

County: Mendocino **City/Community:** Ukiah

Project Description:

The project consists of repairing and stabilizing approximately 75 feet of creek bank on Doolin Creek to prevent damage to the supports of an existing residential deck. The project includes: 1) the installation of jute netting to cover the bank during the winter to provide temporary protection, and 2) the installation of a bio-engineered crib wall with minor rip rap, encapsulated soil lifts, log cribbing and willow plantings. The total area of disturbance is approximately 353 sf, including a crib wall 45 feet in length, 4 feet in width and 6 feet in height. All work will be performed with hand tools only.

Additional Request

☐ **Sacred Lands File Search** - ***Required Information:***

USGS Quadrangle Name(s):

Township: **Range:** **Section(s):**

1364 Helen Ave Streambank Repair Project

Tribes Contacted for AB 52 Consultation

California Native American Heritage Commission
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691

EPA Director Emily Luscombe
Coyote Valley Band of Pomo
PO Box 39
Redwood Valley, CA 95470

Tribal Chair Michael Hunter
Coyote Valley Band of Pomo
PO Box 39
Redwood Valley, CA 95470

EPA Director Meyo Marrufo
Guidiville Indian Rancheria of Pomo Indians
PO BOX 339
Talmage, CA 95481

Tribal Chair Merlene Sanchez
Guidiville Indian Reservation of Pomo Indians
PO Box 339
Talmage, CA 95481

EPA Director Zack Sampsel
Pinoleville Pomo Nation
500 B Pinoleville Dr.
Ukiah, CA 95482

THPO Angela James
Pinoleville Pomo Nation
500 B Pinoleville Dr
Ukiah, CA 95482

Tribal Chair Leona Williams
Pinoleville Pomo Nation
500 B Pinoleville Dr
Ukiah, CA 95482

Tribal Chair Romaine Daniels
Yokaya Tribe
PO Box 362
Talmage, CA 95481

Tribal Chair Debra Ramirez

Redwood Valley Little River Band of Pomo Indians
3250 Road I
Redwood Valley, CA95470-9526

THPO Ramon Billy, Jr.
Hopland Band of Pomo Indians
3000 Shanel Road
Hopland, CA 95449-9809

Tribal Chair Salvador Rosales
Potter Valley Rancheria
2251 S. State Street
Ukiah, CA 95482-6723

Tribal Chair Shawn Davis
Scotts Valley Band of Pomo Indians
1005 Parallel Dr.
Lakeport, CA 95453

Sample letter sent to Tribal contacts

[Lead Agency Letterhead]

February 27, 2019

FROM: Michelle Irace, Planning Manager

RE: Tribal Cultural Resources under the California Environmental Quality Act, AB 52.

Formal Notification of Determination that a Project Application is Complete, and Notification of Consultation Opportunity, pursuant to Public Resources Code § 21080.3.1

Dear < MAIL MERGE: TRIBAL CONTACT TITLE, TRIBAL CONTACT LAST NAME>:

The City of Ukiah has determined that a project application is complete for the Doolin Creek Bank Repair and Stabilization Project. Below please find a description of the proposed project, a map showing the project location, and the name of the project point of contact, pursuant to PRC § 21080.3.1 (d).

Project Description: The project consists of repairing and stabilizing approximately 75 feet of creek bank on Doolin Creek to prevent damage to the supports of an existing residential deck. The project includes: 1) the installation of jute netting to cover the bank during the winter to provide temporary protection, and 2) the installation of a bio-engineered crib wall with minor rip rap, encapsulated soil lifts, log cribbing and willow plantings. The total area of disturbance is approximately 353 sf, including a crib wall 45 feet in length, 4 feet in width and 6 feet in height. All work will be performed with hand tools only.

Project Location: 1364 Helen Ave, Ukiah, CA (APN 003-490-96).

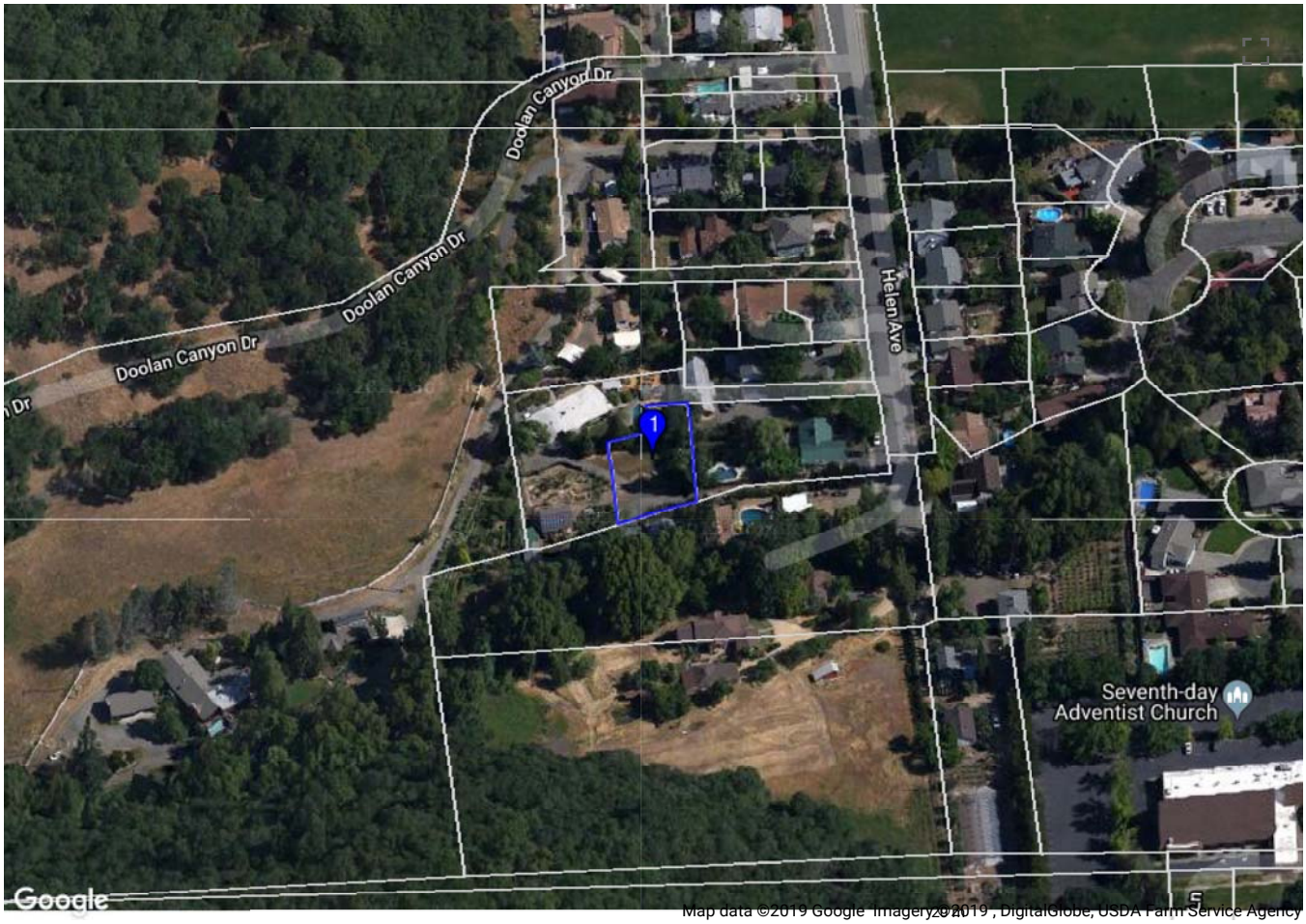
Lead Agency Contact:
Michelle Irace, Planning Manager
City of Ukiah
Department of Planning & Community Development
300 Seminary Drive, Ukiah, CA 95482
mirace@cityofukiah.com
(707) 463-6207

Pursuant to PRC § 21080.3.1 (b), you have 30 days from the receipt of this letter to request consultation, in writing, with the City of Ukiah.

Very Respectfully,

Michelle Irace
Planning Manager, Community Development Department

Attachments
Location Map
Project Description



PARCELQUEST

☑ 1 Property Address: 1364 HELEN AVE UKIAH CA 95482-6311

Ownership

County:	**MENDOCINO, CA**
Assessor:	**KATRINA BARTOLOMIE, ASSESSOR**
Parcel # (APN):	**003-490-96-00**
Parcel Status:	**ACTIVE**
Owner Name:	**DABBS CHRISTOPHER W & MIRANDA J**
Mailing Address:	**PO BOX 2317 UKIAH CA 95482**
Legal Description:	

Assessment

Total Value:	**$255,244**	Use Code:	**0000**	Use Type:	**VACANT**
Land Value:	**$68,065**	Tax Rate Area:	**003-012**	Zoning:	
Impr Value:	**$187,179**	Year Assd:	**2018**	Census Tract:	**114.00/3**
Other Value:		Property Tax:		Price/SqFt:	
% Improved:	**73%**	Delinquent Yr:			
Exempt Amt:		HO Exempt:	**N**		

Sale History

	Sale 1	Sale 2	Sale 3	Transfer
Document Date:	**06/30/2010**	**06/20/2006**	**07/20/2004**	**06/30/2010**
Document Number:	**08474**	**12059**	**16177**	**08474**
Document Type:				
Transfer Amount:	**$225,000**			
Seller (Grantor):				

Property Characteristics

Bedrooms:		Fireplace:		Units:	
Baths (Full):		A/C:		Stories:	
Baths (Half):		Heating:		Quality:	
Total Rooms:		Pool:		Building Class:	
Bldg/Liv Area:		Park Type:		Condition:	
Lot Acres:	**0.244**	Spaces:		Site Influence:	
Lot SqFt:	**10,668**	Garage SqFt:		Timber Preserve:	
Year Built:				Ag Preserve:	
Effective Year:					

CREEK BANK REPAIR PLANS
CHRIS AND MIRANDA DABBS
1364 HELEN AVENUE, UKIAH, CA
APN: 003-490-96

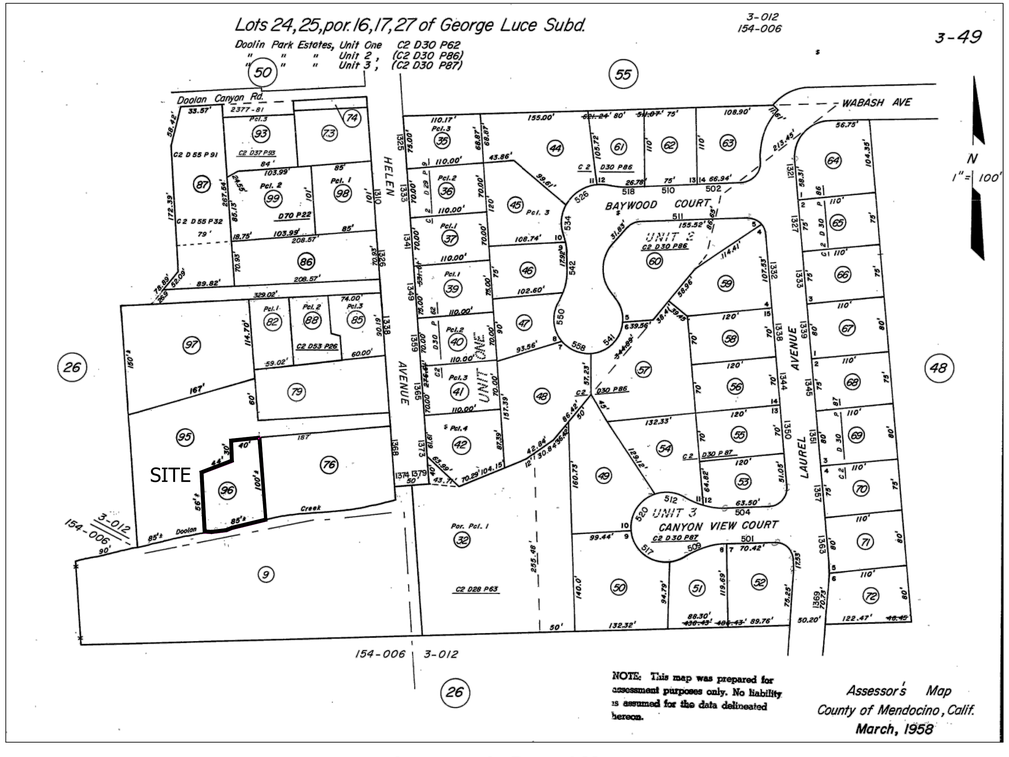
Project Information

PROJECT ADDRESS:	1364 HELEN AVENUE, UKIAH, CA
OWNER/DEVELOPER :	CHRIS AND MIRANDA DABBS 733 LAKE MENDOCINO DRIVE UKIAH, CA 95482 (707) 391-4046
CIVIL ENGINEER :	THOMAS J. BILLETER, P.E. 2800 CLEVELAND AVENUE SANTA ROSA, CA 95403 (707) 542-4321
ACRES :	0.17 ACRES

Purpose

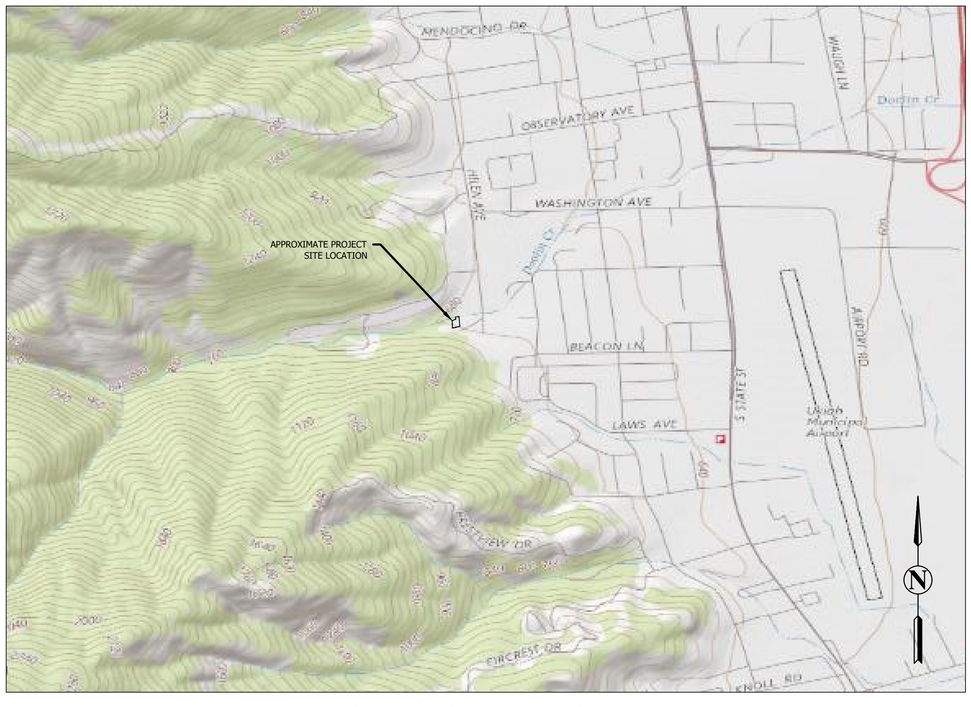
THE PURPOSE OF THIS PROJECT IS TO RESTORE AND STABILIZE A PORTION OF A CREEK BANK THAT IS ERODING.

Sheet Index



Assessor's Parcel Map

NTS



Vicinity Map & USGS Map

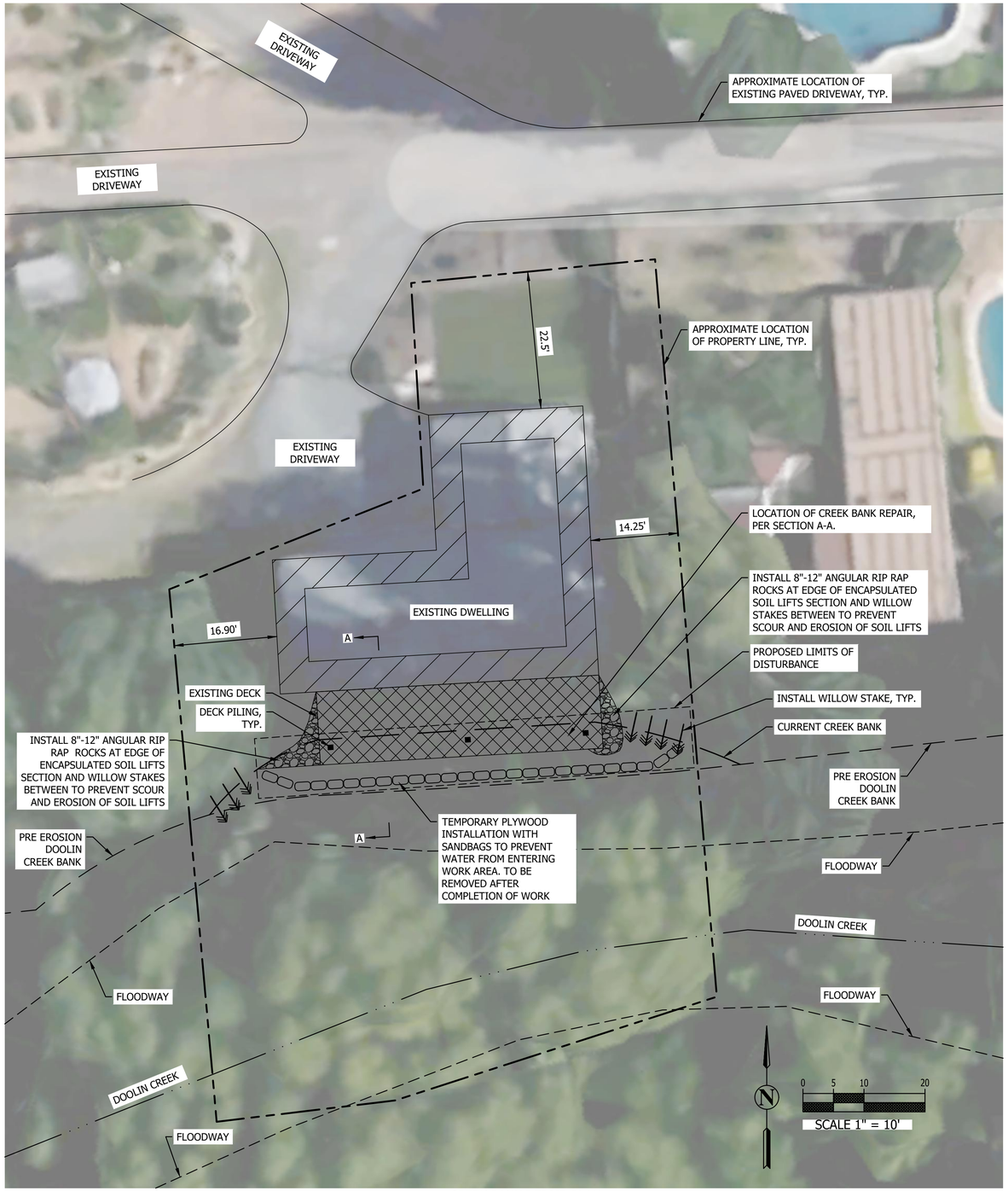
NTS

REV.	DESCRIPTION	BY	DATE

BC ENGINEERING GROUP, INC.
CIVIL ENGINEERING & LAND PLANNING
www.bcengineeringgroup.com
Phone: 707.542.4321
SANTA ROSA OFFICE:
2800 Cleveland Ave, Suite C, Santa Rosa CA 95403
UKIAH OFFICE:
603 S. State Street, Ukiah CA 95482

CREEK BANK REPAIR PLANS
COVER SHEET
CHRIS AND MIRANDA DABBS
1364 ELEN AVENUE
UKIAH, CA 95482

Date:	1/15/19
Job:	561-17
Drawn:	ANR
Scale:	NTS
APN:	003-490-96
Permit #:	
Sheet:	1 OF 2



CREEK BANK REPAIR PLAN
SCALE: 1" = 10'

HATCH LEGEND

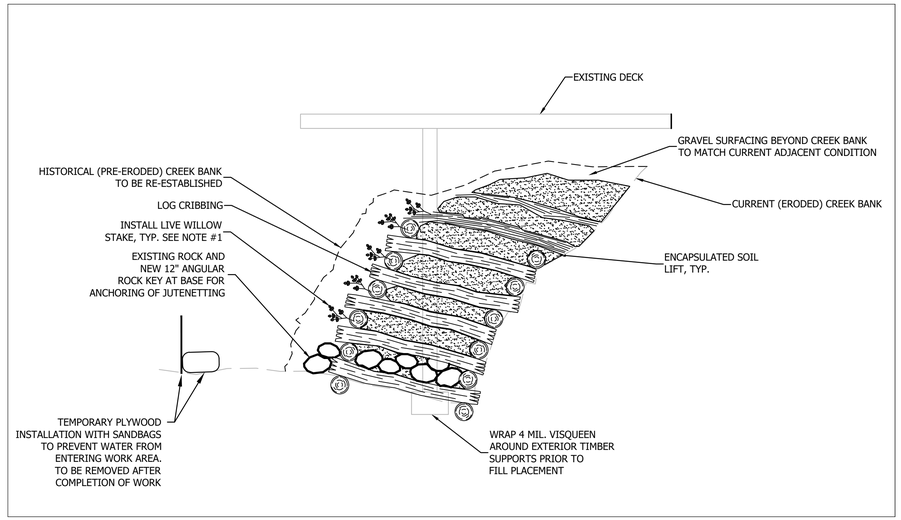
EXISTING DECK

NOTES:

ALL FEATURE LOCATIONS ARE APPROXIMATE AND WERE OBTAINED THROUGH PUBLICLY AVAILABLE ENTITIES.

DIMENSIONS TO PROPERTY LINES AS SHOWN ARE APPROXIMATE.

FLOODWAY AND DOOLIN CREEK FLOWLINE LOCATIONS PER FEMA MAP SERVICE CENTER



NOTE:

SEE SIMILAR TEMPLATE, FIGURE 6-5 OF CHAPTER 6 OF THE STREAM MAINTENANCE MANUAL FOR NAPA COUNTY.

NO WILLOW STAKES TO BE INSTALLED IN REPAIR AREAS IMMEDIATELY BELOW EXISTING DECK. WILLOW STAKES TO BE INSTALLED AT 24" SEPARATION ON-CENTER FOR LENGTH OF IMPROVEMENTS. DIAMETER OF STAKES TO BE 1" MINIMUM. EMBED STAKES AT LEAST 75% OF LENGTH INTO BACKFILL SOIL.

CREEK BANK REPAIR - SECTION A-A
NOT TO SCALE

WILLOW PLANTING NOTES:

PROPOSED WILLOWS SHALL COME FROM NURSERY STOCK GROWN FROM LOCALLY-SOURCED ACORNS/SEEDS, OR FROM ACORNS/SEEDS GATHERED LOCALLY, PREFERABLY FROM THE SAME WATERSHED IN WHICH THEY ARE PLANTED.

AN IRRIGATION SYSTEM SHALL BE ESTABLISHED TO REGULARLY WATER TREES. THE TREES SHOULD BE ABLE TO SURVIVE THE LAST TWO YEARS OF THE FIVE-YEAR MONITORING PERIOD WITHOUT IRRIGATION.

DURING THE FIVE-YEAR MONITORING PERIOD, DEAD OR DYING TREES SHALL BE REPLACED WITH TREES OF THE SAME SPECIES AND SIZE TO ACHIEVE A NECESSARY 85% SURVIVAL RATE AT THE END OF THE FIVE-YEAR PERIOD. IF AN 85% SURVIVAL RATE IS NOT ACHIEVED AT THE END OF FIVE-YEAR MONITORING PERIOD, ALL DEAD OR DYING TREES AT THAT TIME SHALL BE REPLACED.

IF VEGETATION DIES WITHIN THE FIRST FIVE YEARS, THE REPLANTED VEGETATION NEEDS TO BE MONITORED FOR FIVE YEARS. THE TREE PLANTING AREAS NEED TO BE MONITORED ENOUGH TO ASSURE SUCCESS. A REPORT OF COMPLETION IS TO BE SUBMITTED TO NCRWQCB AND DFW AFTER THE PLANTING OF THE VEGETATION WHICH SHALL BE PLANTED IN THE WINTER/SPRING AFTER THE PROJECT IS COMPLETED.

ANNUAL REPORTS CONTAINING A NARRATIVE OF VEGETATION STATUS AND PHOTOS OF THE SITE SHALL BE SUBMITTED AT THE END OF EACH CALENDAR YEAR.

REV.	DESCRIPTION	BY	DATE

BC ENGINEERING GROUP, INC.
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www.bcengineeringgroup.com
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SANTA ROSA OFFICE:
2800 Cleveland Ave, Suite C, Santa Rosa CA 95403
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603 S. State Street, Ukiah CA 95482

CREEK BANK REPAIR PLANS

SITE PLAN AND DETAILS

CHRIS AND MIRANDA DABBS
1364 HELEN AVENUE
UKIAH, CA 95482

Date: 1/15/19
Job: 561-17
Drawn: ANR
Scale: AS SHOWN
APN: 003-490-96
Permit #:

Sheet: 2 OF 2