COUNTY OF LAKE
COMMUNITY DEVELOPMENT DEPARTMENT
Planning Division
Courthouse - 255 N. Forbes Street
Lakeport, California 95453
Telephone 707/263-2221 FAX 707/263-2225

November 9, 2020

CALIFORNIA ENVIRONMENTAL QUALITY ACT
ENVIRONMENTAL CHECKLIST FORM
INITIAL STUDY IS 12-27

1. Project Title:	Clover Creek Bridge (Bridge No. 14C-0015) Replacement on First Street; Federal Project No. BRLO-5914 (079)
2. Permit Number:	General Plan Conformity, GPC 12-10 Initial Study, IS 12-27
3. Lead Agency Name and Address:	County of Lake Community Development Department Planning Division Courthouse – 255 North Forbes Street Lakeport CA 95453
4. Contact Person and Phone Number:	Sateur Ham, Assistant Planner, County of Lake (707) 263-2221
5. Responsible Agency:	California Department of Transportation, District 1 1656 Union Street Eureka, CA 95502
6. Project Location:	Clover Creek Bridge at First Street, 300 feet west of Main Street, Upper Lake, CA; County of Lake Road Right-of-Way; Upper Lake USGS Quadrangle, Section 7, Township 15N, Range 9W APNs: 027-195-09, 027-196-011, 027-197-051 & 027-221-11
7. Project Sponsor's Name and Address:	County of Lake Department of Public Works 255 N Forbes St Lakeport, CA 95453
7. General Plan Designation:	"LDR"-Low Density Residential; "MDR"-Medium Density Residential; "RC"-Resource Conservation
8. Zoning:	"R2" Two-Family Residential; "R1" Single-Family Residential

9. Description of Project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary).

The County of Lake Public Works Department, in cooperation with the Federal Highway Administration (FHWA) and the California Department of Transportation (Caltrans) is proposing to replace Bridge No. 14C-0015, located on First Street approximately 0.1 miles east of Main Street, near the community of Upper Lake. The Federal Highway Bridge Program (HBP) will provide the majority of the funding for this bridge rehabilitation project. The Federal contribution for the project construction cost is approximately 100% (HBP) using toll credits in lieu of local match.

The project site is located in a residential setting and is closely bordered by fencing associated with residential development. The project consists of the replacement of an existing 39-foot single span reinforced concrete haunched T-girder (Bridge No. 14C-0015) over Clover Creek, a perennial drainage flows in a southerly direction through the site. Clover Creek is primarily controlled by the upstream Clover Creek diversion structure and seasonal runoff.

The existing bridge is made of concrete that was recently rated as too narrow and is considered "functionally obsolete" based on the California Department Transportation's (Caltrans) Structure Inventory and Appraisal Report. The existing bridge does not have adequate shoulders and has limited vertical sight distance. All of the girders have vertical cracks ranging from 1/64 to 1/32 inch wide, spaced as close as 3 feet on center due to tension stresses from bending moments. These vertical cracks were first reported in 1999. The existing structure is approximately 39 feet long. The concrete bridge barriers do not meet current safety standards and there are no approach railings.

The existing bridge crosses Clover Creek upstream of its confluence with Middle Creek and the flow is primarily controlled by the upstream Clover Creek diversion structure and seasonal runoff. The flows were reduced by the diversion structure from the historical 8,500 cubic feet per second (cfs). Currently Clover Creek flows are limited to a maximum 500 cfs, and are manually controlled with gates at the diversion structure. The structure and associated levees were built by the US Army Corps of Engineers in 1930 and the responsibility for operation and maintenance was later transferred to the Central Valley Flood Protection Board. These services were contracted to the Lake County Watershed Protection District.

The primary objective is to replace the existing bridge with a new structure that meets current design and safety standards, improves public safety, and provides long term value for the County. The existing channel appears to have a good alignment with the current bridge configuration. The proposed replacement structure is a three 12' X 8' cell cast-in-place reinforced concrete box culvert and will typically slightly longer than the existing bridge. The continuous mat foundation of the box culvert is well-suited for the weak liquefiable soils at the site. The culvert will be designed to pass the 50-year and 100-year design storms without freeboard. An allowance for freeboard is not included because the high-water elevation during the flood events is governed by backwater effects downstream of the bridge and floating debris is not anticipated to be an issue that would hinder flow in a backwater condition.

This project may involve permanent modification or alteration of the streambed by adding rock slope protection, minor regrading, and the placement of a concrete bottom box culvert. The bottom of the box will be buried with a natural stream bed backfill. It is anticipated that the flowline of the creek through the project limits will be restored to the current grades. Access to the creek will be required to construct the new structure. Depending on flows during construction, temporary stream diversion may be required. Water Quality will be managed through implementation of BMPs as part of the Water Pollution Control Plan (WPCP) or Storm Water Pollution Prevention Plan (SWPPP).

Road work will include reconstructing the approaches along First Street conforming at the intersection with Washington Street to the west, and approximately 200' past the bridge to the east. The approach road width will be constructed to current County standards, with 10' lanes, 5' shoulders and 5' sidewalks. Parking along First Street will be replaced as necessary. Driveways will be reconstructed to conform to the new roadway profile.

The entire existing roadway is within County right-of-way which has a minimum width of 50'. Any additional need for right-of-way acquisition, rights of entry, or temporary construction easements will be minimized by maintaining the existing roadway alignment. Right-of-way and temporary construction easements will be purchased from portions of the four parcels at each corner of the bridge to accommodate construction of the culvert and roadway approaches.

Utility relocation is anticipated for conflicts with overhead lines. Underground water line relocation may also be required. Adjustments to underground sewer and water manholes, valve boxes and cleanouts will be performed as needed to match the proposed grades.

TRAFFIC HANDLING AND DETOUR

The roadway for one block will be closed during construction and traffic will be redirected onto other local streets. It is anticipated that excavators, dozers, cranes, dump trucks, concrete trucks, concrete pumps, and pile driving or drilling equipment may be required to construct the new bridge—the staging area is as shown in figure 1. The road will be closed at the bridge site for the duration of construction. However, access will still be maintained for those residents with driveways adjacent to the bridge. There are also multiple alternative routes that residents can use to access their property. Therefore, the delay for these residents will be minimal. Thirty days prior to construction, the County will place Changeable Message Sign (CMS) boards on First Street warning residents of the upcoming road closure. In addition to the CMS boards, a notice will also be placed on the County's website as well as in the local newspaper. Flyers will also be distributed to the nearby residents to warn of the road closure.

Figure 1. Proposed staging area and road closure during construction.

Construction Window: Construction should be completed within one construction season. Chapter 30 of the Lake County· Grading Ordinance limits construction to the hours of 7:00 am to 7:00 pm from April 15 to October 14, unless otherwise approved by an administrative official.

10. Surrounding Land Uses and Setting: Briefly describe the project's surroundings:

The project is located on a county-maintained road on First Street over Clover Creek, north of State Highway 20, in the Community of Upper Lake. Surrounding land uses are commercial and residential of low, medium, and high density. The project site is abutted among four (4) residential parcels (see figure 2). Clover Creek is an ephemeral creek that flows southward under the bridge and empties into Clear Lake. The site is flat with a small amount of riparian habitat in the vicinity of the bridge.

North: Directly north is Clover Creek. One- and Two- Residential Family District. Parcel size range from .21 acres to .47 acres

East: County-maintained road located on First Street with the nearest cross street being Rice Street.

South: Directly south is Clover Creek. Two-Residential Family District. Parcel size range from .20 acres to 0.43 acres.

West: County-maintained road located on First Street with the nearest cross street being Washington Street.

11. Other public agencies whose approval is required (e.g., Permits, financing approval, or participation agreement.)

- California Department of Transportation-implementing funding and project approvals as a Responsible Agency
- Regional Water Quality Control Board (RWQCB) - 401 Permit
- U.S. Army Corps of Engineers (ACOEUSACE) - 404 Permit
- CA Department of Fish and Wildlife (CDFW) - 1602 Permit Stream Alteration Agreement
- County of Lake-Department of Water Resources National Pollutant Discharge Elimination System Municipal Separate Storm Sewer Systems (MS4s) Permit
- State Water Resources Control Board-NPDES Construction General Permit and MS4 permit
- Federal Highway Administration (FHWA)- funding provided by the Federal Highway Bridge Program (HBP)

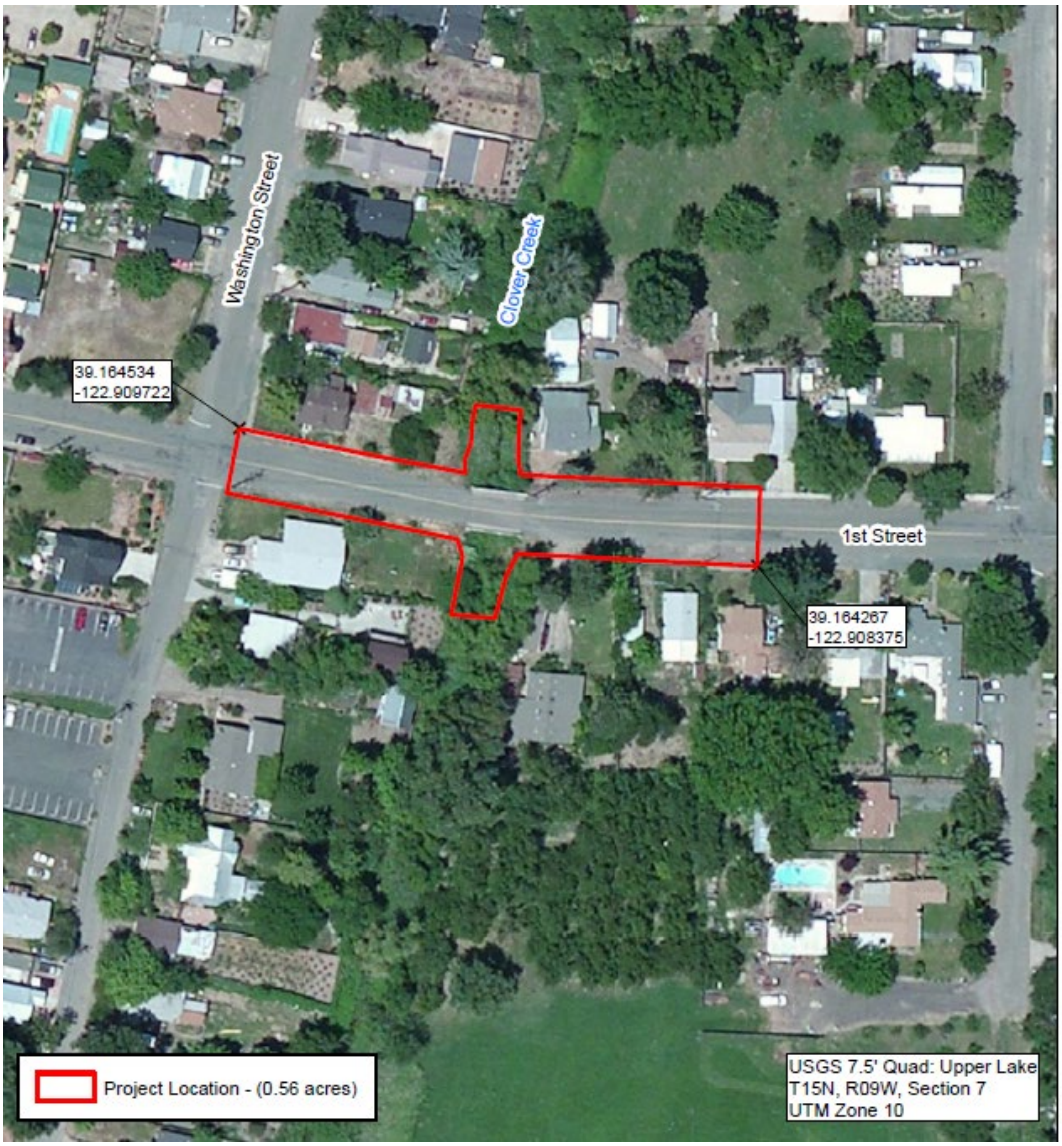


Figure 2. Vicinity Map of Clover Creek Bridge at First Street.

12. ATTACHMENTS

A- Site Visit Photos

B- Site Plans and Project Description

C- Biological Resource Surveys and Information:

1. Biological Resources Assessment , 2012
2. Natural Environmental Study (NES), 2015
3. Draft Delineation of Waters of the U.S, 2017

D- Vegetation Memo, Caltrans, August 20, 2012

E- Location Hydraulic Study Report, 2018

F- Water Quality Discussion and Dewatering Plan for the County of First Street Bridge Replacement over Clover Creek Project, 2018

G- Noise Technical Memorandum, 2015

H- Traffic Technical Memo, 2014

I- Asbestos Containing Materials (ACM) Assessment , 2019

J- Mitigation monitoring Reporting Program

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

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

DETERMINATION: (To be completed by the lead Agency)
On the basis of this initial evaluation:

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

☒ **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, and 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.

Initial Study prepared by:
Sateur Ham – Assistant Planner

SIGNATURE Date: 11/09/2020

Scott De Leon, Interim Director
Community Development Department

SECTION 1

EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, and then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "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.

4) "Negative Declaration: 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." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

a) Earlier Analysis Used. Identify and state where they are available for review.
b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures, which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:
a) the significance criteria or threshold, if any, used to evaluate each question; and
b) the mitigation measure identified, if any, to reduce the impact to less than significance

KEY: 1 = Potentially Significant Impact
2 = Less Than Significant with Mitigation Incorporation
3 = Less Than Significant Impact
4 = No Impact

IMPACT CATEGORIES*	1	2	3	4	All determinations need explanation. Reference to documentation, sources, notes and correspondence.	Source Number**
I. AESTHETICS *Would the project:*						
a) Have a substantial adverse effect on a scenic vista?			X		The Lake County General Plan identifies views of Clear Lake, Mt. Konocti, and other views of open unobstructed landscapes as scenic. The project is located in a residential area, heavily developed with single family homes and is not located in view of a scenic vista. In addition, the existing and proposed bridges are low profile and visual impacts of the replacement are anticipated to be negligible. There may be a temporary visual impact to the site during construction related to the presence of equipment, materials and earthmoving activities; however, this will be a temporary impact and is not considered significant. **Less than significant impact.**	1, 2, 3, 4, 5, 6, 7
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?			X		The project is anticipated to have only temporary visual impacts during construction and will not significantly impact visual resources in the area. In addition, the project is not located within a state scenic highway.	1, 2, 3, 4, 5, 6, 7

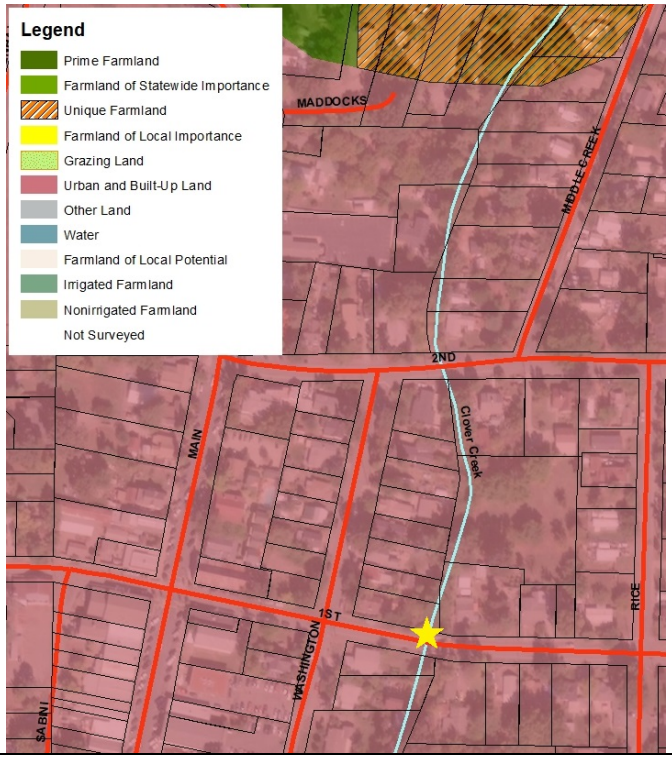
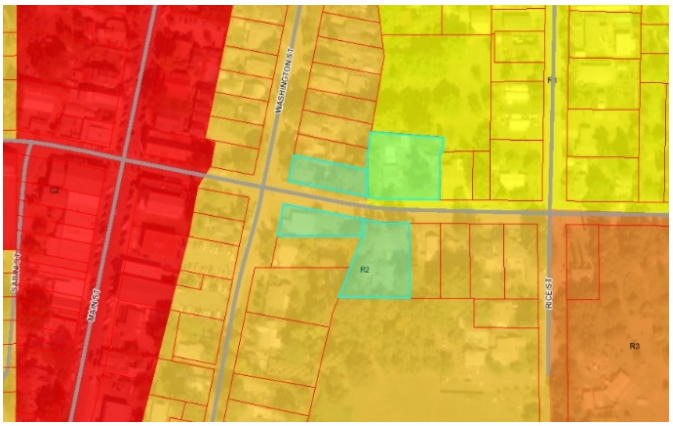
					Less than significant impact.	
c) Substantially degrade the existing visual character or quality of the site and its surroundings?			X		See response to Section I (a). **Less than significant impact.**	1, 2, 3, 4, 5, 6, 7
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				X	The project is not anticipated to create additional light or glare on the road or in the vicinity of the bridge. There is no proposed nighttime work that would involve lighting. **No impact.**	1, 2 3, 4, 5, 6
II. **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:*						
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?				X	The project will occur in the County road right-of-way involving mostly developed area and will consist of a replacement of a pre-existing structure. The Project site is located (starred below) within an area of urban and built-up land. No farmland will be disturbed or converted for this project. 	1, 2, 3, 4, 5, 8, 9

					Figure 3. Farmland Mapping and Monitoring Program Designation of the project site **No impact.**	
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X	See response to Section II (a). **No impact.**	1, 2, 3, 4, 5, 8, 9
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))?				X	The project would not result in the rezone of forest land, timber land, or timberland production lands. See response to section II (a). **No impact.**	1, 2, 3, 4, 5, 8, 9
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X	The project would not result is the loss or conversion of forest land to a non-forest use. See response to section II(a). **No impact.**	1, 2, 3, 4, 5, 8, 9
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?				X	The project will not induce changes to existing farmland that would result in its conversion to non-agricultural use. The project will involve impacts to existing County road right-of-way in a developed area for residential use.  *Figure 4. The area is surrounded by residential and commercial uses. Two-family residential (orange), single-family residential (yellow), community commercial (red), and multi-family residential (dark orange).*	1, 2, 3, 4, 5, 8, 9

					No impact.	
III. AIR QUALITY *Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.* *Would the project:*						
a) Conflict with or obstruct implementation of the applicable air quality plan?		X			The typical impacts regarding air quality are the results from vehicle emission related to construction activities, fugitive dust and debris from the removal of old structures and vegetation. Vegetation that is removed will be chipped and used for erosion control or compost; burning is not authorized. The applicant provided an Asbestos Containing Materials (ACM) assessment for the bridge. The assessment was conducted on September 11, 2017 and resulted in no potential airborne asbestos fibers from the limited area that is being renovated. Best management Practices will be implemented throughout the reconstruction project with the following mitigation measures incorporated. **AQ-1: Vegetation removal and disposal shall conform to requirements of the Northshore Fire Protection District and the Lake County Air Quality Management District. Brush chipping and spreading for erosion control or composting is recommended.** **AQ-2: Work practices shall implement standard fugitive dust control measures consistent with the rules and regulations of Lake County Air Quality Management District at all times during construction to reduce the impact of fugitive dust emissions to a less than significant level in staging areas, work areas, and adjoining roads.** **Less than significant with mitigation AQ-1 through AQ-2 incorporated.**	1, 2, 3, 4, 5, 8, 10, 11, 12
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under and applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?				X	The Lake County Air Basin is designated as an attainment area. No criteria pollutants for the project region have been exceeded or expected to exceed. **No impact.**	1, 2, 3, 4, 5, 10, 11
c) Expose sensitive receptors to substantial pollutant concentrations?		X			See response to Section III (a). **Less than significant with mitigation AQ-1 to AQ-2 incorporated.**	1, 2, 3, 4, 5, 8, 10, 11, 12
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X		The potential for objectionable odors resulting from road surfacing activities are expected to be temporary and not significant in impact to surrounding properties. **Less than significant impact.**	1, 2, 3, 4, 5, 11

IV. BIOLOGICAL RESOURCES *Would the project:*						
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		X			The Natural Environment Study (NES) performed by Northwest Biosurvey (2015) identified suitable habitat for one (1) plant species: Norris's beard-moss (*Didymodon norrisii)* but the plant was not found during the botanical field survey. Habitat for the following five (5) animal species was also found on-site: Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus)*, Clear Lake hitch (*Lavinia exilicauda chi)*, Western pond turtles (*Emys marmorata),* yellow warbler (*Dendroica petechial brewsteri),* yellow-breasted chat (*Icteria virens)*. Clear Lake hitch, a California sensitive fish species, was found to seasonally occur within the creek. In addition, three blue elderberry shrubs, which are known to host Valley elderberry longhorn beetle, a federally listed sensitive species, were found within the survey area. The closest was in contact with the upstream edge of the bridge (trunk was 7 feet upstream) and is proposed to be removed. The other two were 36 and 51 feet away from the bridge and will not be directly impacted from the project. The NES found that the shrubs likely do not provide habitat for the Valley elderberry longhorn beetle based on their location and because they are not located within the species' range. A supplemental Biological Assessment was prepared for the project by Northwest Bio Survey (2012) based on the potential to impact the sensitive species aforementioned. The BA notes the presence of the same three shrubs but concluded that the site does not contain suitable habitat for any of the sensitive plant species known to occur in the region. Consequently, this site has a low potential to provide habitat for plants with sensitive regulatory status. The BA states that the three bird species with sensitive regulatory status -- yellow-breasted chat, yellow warbler, and common yellow-throat -- occur in the region in dense riparian willow thickets over water. However, the site lacks appropriate willow habitat and the channel was dry at the time of the inspection other than small isolated pools. None of the sensitive species was observed and no return calls were made to the recorded calls played at the time of the survey. The survey results for these birds were negative. Consequently, the site has a low potential to provide habitat for these sensitive birds. Regardless of the low potential for plants and wildlife with sensitive regulatory status to be present, riparian communities provide high value wildlife habitat for a wide spectrum of native wildlife and care should be taken to minimize disturbance within these habitats. The NES and BA were sent to Caltrans for review and Caltrans. Caltrans responded with a letter dated August 20, 2012 stating that they concur with the aforementioned studies and included some recommendations for avoiding impacts to sensitive species (included below as Mitigation Measures). Impacts can be minimized with the following mitigation measures implemented: **BIO-1: Prior to construction, a qualified biologist shall re-survey the project site to ensure biological resources is present and incorporate new mitigation measures for protected species as needed.**	1, 2, 3, 4, 5, 13, 14, 15

					BIO-2: Seasonal construction restrictions will be imposed between March 1 and June 30 when adults, eggs, and larvae would potentially be present on elderberry vegetation. During this period no vegetation removal is allowed and no work shall be conducted within 20 feet of elderberry shrubs. **BIO-3: A qualified biologist shall be on site during all clearing activities upstream of the existing bridges in order to identify the elderberry shrubs and verify that appropriate buffers are maintained between construction equipment and the elderberry shrub.** **BIO-4: To avoid potential impacts to Clear Lake hitch foothill yellow-legged frog and western pond turtle, work within the creek channel shall be restricted to between June 15 and October 15 and only when the stream channel is dry.** **BIO-5: To avoid potential impacts to western pond turtles, work within the channel shall occur either prior to April 1 or after August 15, or when the channel is dry. Downed trees, stumps and other basking sites and refuges within these aquatic habitats shall remain undisturbed.** **BIO-6: To avoid potential impacts on Yellow warbler and Yellow-breasted chat, work within 100 feet of the red willow riparian habitat along Clover Creek shall be avoided from February 15 through August 31 in order to avoid the potential for disrupting nesting and breeding, unless the work is preceded by the survey described below under compensatory mitigation.** **BIO-7: Limit clearing to no more than 50 feet upstream and downstream of the bridge. Vegetation removal should be limited to Himalayan blackberry, ivy, and giant reed on both sides of the bridge. Avoid removal of trees and willows. Mitigation for elderberry is beyond the scope of this assessment but will be required by Caltrans environmental review staff.** **BIO-8: Limit activities to the proposed project to those involving maintenance of the existing bridge and vegetation clearing. Use of cranes should be limited to the adjacent roadway with precautions to contain lost hydraulic fluid.** **BIO-9: All vegetation shall be removed by hand powered or manual equipment (i.e. machete, weed whacker, etc.). Vegetation removal shall be limited to what is needed for the sole purpose of surveying and access of equipment. No ground disturbing activities shall result from vegetation removal. Access shall be by foot only and no non-hand held equipment shall be used within the creek channel.** **Less than significant with mitigation measures BIO-1 through BIO-9 incorporated.**	
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		X			Clearing and grading for the bridge replacement will remove a small amount of riparian vegetation from the creek bank to access construction work. However, implementation of mitigation measures BIO-1 through BIO-9 will reduce impacts to less than significant.	1, 2, 3, 4, 5, 6, 13, 14, 15

					Less than significant with mitigation measures BIO-1 through BIO-9 incorporated.	
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not to limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?		X			A Draft Delineation of Waters of the U.S. was performed by Gallaway Enterprises in 2017 to determine if wetlands or other jurisdictional water are present on the site. No wetland features were identified on the site. However, one 0.08 acre (22 feet wide x 156 feet long) feature was identified as "Other Waters of the United States" within the Project site. Other Waters of the United States are seasonal or perennial water bodies, including lakes, stream channels, ephemeral and intermittent drainages, ponds, and other surface water features that exhibit an ordinary high-water mark (OHWM), but lack positive indicators for one or more of the three wetland parameters (hydrophytic vegetation, hydric soil, and wetland hydrology. The Other Waters feature present within the Project site, Clover Creek (OW 01), is identified as a Relatively Permanent Water (RPW). Relatively Permanent Waters are defined as tributaries that typically flow for at least three months of the year and have a documented hydrologic connection to a Traditionally Navigable Water (TNW). Impacts to Other Waters will be minimized through limiting the project footprint, and construction BMPs implemented as part of the WPCP or SWPPP.  **BIO-10: Dust, erosion, and sedimentation control will follow the 2010 Caltrans Standard Specifications. These are augmented by conditions of the mandatory Storm Water Pollution Prevention Plan (SWPPP) and WPCP conditions placed on this project by the RWQCB. (http://www.dot.ca.gov/hq/esc/standards.php).**	1, 2, 3, 4, 5, 6, 13, 14, 15

					BIO-11: No work shall be performed in the stream until the stream bed is dry, unless the stream diversion alternative mitigation described below is performed prior. Prior to commencement of activities within the bed or bank of the creek, a Streambed Alteration Agreement shall be obtained from the California Department of Fish and Wildlife (CDFW). All the conditions of such permit shall be adhered to throughout the course of the project to reduce impacts to a less than significant level. **BIO-12: The Army Corps of Engineers shall be notified and any necessary permits shall be obtained in conjunction with Section 404 of the Clean Water Act. A Water Quality Certification shall be obtained from the Central Valley Regional Water Quality Control Board.** **BIO-13: The project design shall incorporate appropriate BMPs consistent with County and State storm water drainage regulations to insure that no debris enters the creek that could cause filling or hydrological interruption.** **Less than significant with mitigation BIO-9 to BIO-13 incorporated.**	
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?		X			Construction of the bridge will occur during summer months when the water volumes are lowest and storm flows are not likely to occur in Clover Creek. If there is water expected in the channel at the time of construction, a stream diversion will be required through the project site (from upstream of the new bridge construction to downstream of the low water crossing) for the duration of the box culvert construction. Falsework may also be placed in the creek bed, and diverting the channel facilitate placement/removal of the falsework. Stream flows will be temporarily diverted around the work site for the duration of the project, either through gravity flow culverts or with a combination of a pump. **Less than significant with mitigation measures BIO-1 through BIO-13 incorporated.**	1, 2, 3, 4, 5, 6, 13, 14, 15
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X	The project does not conflict with any local policies or ordinances protecting biological resources. **No impact.**	1, 2, 3, 4, 5, 6, 13, 14, 15
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?				X	The project does not conflict with any conservation plans.	1, 2, 3, 4, 5, 6, 13, 14, 15

					No impact.	
V. CULTURAL RESOURCES *Would the project:*						
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?		X			An Archaeological Survey Report (ASR) for the project site was prepared in 2014 by Archaeological Services, Inc. In 2017, the APE was expanded and a survey for the additional areas was required so as to identify and record any archaeological resources within the areas appended to the previous study area. No prehistoric or historic cultural resources were discovered within the original study area, nor the expanded study area. A Supplemental Archaeological Survey Report (ASR) was completed by Gallaway Enterprises in 2018. Tribes contacted for the 2014 study were re-contacted either by email or letter to inform them of the increased study area, and were invited to consultation. No response was received from any of the tribes at the time the ASR was prepared. During the field survey Archaeological Services inspected the cut banks of the creek within the study area where they were not obscured by the existing bridge abutments or vegetation and discovered no cultural material; however, the soil does appear to be alluvial. While no cultural material was observed within the study area or areas of the creek bank that could be inspected; given the alluvial soils, culturally-sensitive buried sites could possibly be present. Therefore, in the event of accidental discovery of cultural resources during construction, mitigation measure CUL-1 has been added to reduce impacts to less than significant. A Historical Resources Evaluation Report (2018) was also prepared by LSA Associates, and found that there are two built residences associated with mid-20th century development of Upper Lake within the study area (located at 422 First Street and 9518 Washington Street , just north and south of the bridge. However, the report concludes that neither of the built resources evaluated appears eligible for listing in the National Historical Places (NRHP) and the California Register of Historical Resources (CRHR), and neither are historical resources for the purposes of CEQA. In addition, the structures are not proposed to be removed as part of the project and will not be impacted by the bridge replacement. No other historic or cultural resources were identified. **CUL-1: Should any cultural, archaeological or paleontological materials be discovered during rehabilitation activities, all activity shall be halted in the vicinity of the find(s), and a qualified archaeologist retained to evaluate the find(s) and recommend mitigation procedures, if necessary, subject to the approval of the Community Development Director. Should any human remains be encountered, they shall be treated in accordance with Public Resources Code Section 5097.98.** **Less than significant with mitigation measure CUL-1 incorporated.**	1, 2, 3, 4, 5, 6, 16, 17
b) Cause a substantial adverse change in the significance of an archeological resource pursuant to §15064.5?		X			See response to Section V (a).	1, 2, 3, 4, 5, 6, 16, 17

					Less than significant impact with mitigation measure CUL-1 incorporated.	
c) Disturb any human remains, including those interred outside of formal cemeteries?		X			See response to Section V (a). **Less than significant impact with mitigation measure CUL-1 incorporated.**	1, 2, 3, 4, 5, 6, 16, 17
VI. ENERGY *Would the project:*						
a) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during project construction or operation?			X		The proposed project would not result in wasteful consumption of energy resources. The construction of the project is expected to take about three months and the construction equipment will be staged on the project site. **Less than significant impact.**	1, 3, 4, 5, 11, 14, 15
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?				X	The proposal will not conflict with, or obstruct, a state or local plan for renewable energy or energy efficiency. The construction would be temporary and the proposed project does not include the use of energy **No impact.**	1, 3, 4, 5, 11, 14, 15
VII. GEOLOGY AND SOILS *Would the project:*						
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?			X		<u>Earthquake Faults</u> An Earthquake Fault Zone map has not been established by the California Geological Survey under the Alquist-Priolo Earthquake Fault Zoning Act. The proposed bridge will be designed to meet current safety and seismic codes. <u>Seismic Ground Shaking and Seismic–Related Ground Failure, including liquefaction.</u> Lake County contains numerous known active faults. Future seismic events in the Northern California region can be expected to produce seismic ground shaking at the site. However, the project site is not located within the immediate earthquake fault zones. The proposed bridge replacement project should not increase nor create additional risk of liquefaction of the soils on site. All construction will be required to be built consistent with Current Seismic Safety construction standards. <u>Landslides</u> According to the Lawrence Livermore landslide map series for Lake County, the area is considered generally stable and not a landslide risk. **Less than significant impact.**	1, 2, 3, 4, 5, 6, 8, 18, 19, 20, 21

b) Result in substantial soil erosion or the loss of topsoil?		X			According to the soil survey of Lake County, prepared by the U.S.D.A., the soil in the project area is Lupoyoma silt loam, protected (soil unit 158): This very deep, moderately well drained soil is on flood plains. It formed in alluvium derived from mixed rock sources. Slope is 0 to 2 percent. Typical vegetation is mostly annual grasses and scattered oaks. Permeability is moderately slow. Surface runoff is very slow and hazard of erosion is slight. The soil is subject to rare periods of flooding in winter and spring. The project will require the contractor to submit a Water Pollution Control Plan (WPCP) or Stormwater Pollution Protection Plan (SWPPP) for approval before construction begins. Adequate implementation of BMPs, monitoring, and reporting methodologies will be required. As a general rule, to minimize erosion, sediment, and pollutant contribution to Clover Creek, best management practices such as the following measures will be part of the WPCP or SWPPP. With incorporation of the mitigation below, impacts would be less than significant. **GEO-1: The project design shall incorporate appropriate BMPs including but not limited to the following, consistent with County and State storm water drainage regulations to prevent or reduce discharge of all construction or post-construction pollutants and hazardous materials offsite or into the creek.** • Construction will be done during summer months when the chance of precipitation is lowest. • Construction equipment will be cleaned and inspected prior to use. Equipment maintenance and fueling will be done at designated staging areas. • On-site stockpiles will be isolated with silt fence, filter fabric, and/or straw bales/fiber rolls. • Silt fence or fiber rolls will be placed below the project areas to contain loose rolling rocks and sediment. Silt fence/fiber rolls will be kept in place and maintained during the entire project. Any sediment caught by the fence or rolls will be removed before the fence/rolls are pulled. • Ground disturbed by construction work will be revegetated with fast-growing native grasses and sterile hybrids and mulched when work is complete. Riparian habitat will be replanted in kind or as stated in the permits issued by RWQCB, DFW or USACE. • The site will be monitored by Public Works personnel during winter rains and any evidence of erosion (rilling, gullies, etc.) will be repaired immediately. In addition, areas where revegetation is not successful will be reseeded and re-mulched to ensure vegetative ground cover. **GEO-2: Erosion control materials shall be available on site at all times in the form of straw, wattles, sand bags, or other erosion control materials adequate to cover areas of disturbed soils or incipient erosion events. This method will also be used in an event of a forecast storm to prevent any potential runoff to any natural drainages.** **GEO-3: Any soil disturbances shall be avoided between October 15 and April 15 and during times of active precipitation.** **Less than significant impact with GEO-1 through GEO-3 incorporated.**	1, 2, 3, 4, 5, 6, 8, 20, 21

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-site or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?		X			According to the soil survey of Lake County, prepared by the U.S.D.A., the soils at the site are considered "generally stable" and there is little risk of landslide at the site. The soil unit is 158 Lupoyoma silt loam, which is considered to have a slight erosion hazard and very slow rate of surface runoff. Activities associated with this project may result in an elevated risk of landslide, subsidence, liquefaction or collapse. Additionally, improper earthwork without necessary erosion control measures has the potential to induce localized subsidence or earth movement. With the incorporation of appropriate BMPs such as placement of straw, mulch, reseeding, straw wattles, silt fencing, and planting of native vegetation, the impact of this project will be less than significant. **See mitigation measures in section VI (b).** **Less than significant impact with GEO-1 through GEO-3 incorporated.**	1, 2, 3, 4, 5, 6, 8, 20, 21
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?		X			The soil in the project area is Lupoyoma silt loam with 0-2% slopes (soil unit 158). The shrink swell potential for these soil types is low to moderate. Most of the material that will be excavated and backfilled is expected to be fill material from the original bridge construction, rather than native soil. The effects of shrinking and swelling can be kept to a minimum by backfilling with material that has a low shrink-swell potential. **GEO-4: All backfilling materials shall have a low shrink-swell potential.** **Less than significant impact with GEO-4 incorporated.**	1, 2, 3, 4, 5, 6, 8
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water?				X	No septic tanks are proposed or needed for the project. **No impact.**	1, 2, 3, 4, 5
f) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?				X	The project site is located in urban location and would not destroy any unique paleontological or unique geological feature. **No impact.**	
VIII. GREENHOUSE GAS EMISSIONS *Would the project:*						
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X		GHG emissions will result from the use of standard construction equipment to replace the existing bridge. Combustion engine emissions are anticipated to be temporary and will not result in a significant impact to air quality standards. . However, emissions would be temporary and those associated with standard construction, which would not be considered significant. Once constructed, the project will not result in any greenhouse gas emissions. **Less than significant impact.**	1, 2, 3, 4, 5, 11
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				X	This project will not conflict with any adopted plans or policies for the reduction of greenhouse gas emissions. **No impact.**	1, 2, 3, 4, 5, 11
IX. HAZARDS AND HAZARDOUS MATERIALS *Would the project:*						
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?		X			Routine transport and use of materials used for construction (gasoline, petroleum, etc.) have the potential to create a significant hazard to the project site, specifically, Clover Creek. However, the below mitigation measures will reduce the potential impacts of accidental spills or release of hazardous substances to less than significant.	1, 2, 3, 4, 5, 6, 12, 21, 22, 23

					An Asbestos Containing Materials (ACM) assessment was prepared by Crawford and Associates, Inc. (2019) for the Clover Creek Bridge at First Street Replacement project located in Lake County, California. The ACM notes that a site visit was initially conducted on September 11, 2017 by a Certified Asbestos Consultant and samples were collected. The bridge inspection and analytical results indicated that no asbestos containing construction materials (ACCM) is present in the limited area that is being renovated. The Certified Asbestos Consultant concluded that the contractor, his employees and/or his subcontractors, can complete their work, in the specific area tested, without any health and safety concerns in regards to the exposure of airborne asbestos fibers. **HAZMAT-1: No substances toxic to aquatic life shall be discharged into Clover Creek (e.g., diesel fuel, oil, hydraulic fluid, run-off from curing concrete, etc.)** **HAZMAT-2: The project design shall incorporate appropriate BMPs consistent with County and State storm water drainage regulations to prevent or reduce discharge of all construction or post-construction pollutants and hazardous materials offsite or into the creek.** **HAZMAT-3: The project's contractor shall prepare an emergency response and cleanup plan prior to beginning work at the site. The plan shall detail the methods to be used to contain and cleanup spills of petroleum products or other hazardous materials in the work area.** **HAZMAT-4: All demolition work at the project site will be performed by licensed contractors and is subject to regulation by Code of Federal Regulations and California Code of Regulations.** **HAZMAT-5: A written National Emissions Standards for Hazardous Air Pollutants, (NESHAP) notification form shall be submitted to the Lake County Air Quality Management District (LCAQMD) at least 10 business days prior to conducting any structural or demolition work to the bridge, regardless of the presence or absence of asbestos in building materials. The LCAQMD Asbestos Demolition/Renovation Notification Form is to be filled out by the contractor conducting the work.** **Less than significant impact with HAZMAT-1 through HAZMAT-5 incorporated.**	
b) Create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment?		X			See response to Section VIII (a). **Less than significant impact with HAZMAT-1 through HAZMAT-5 incorporated.**	1, 2, 3, 4, 5, 6, 12, 21, 22, 23
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X	Project is not within a quarter-mile of an existing or proposed school. **No impact.**	1, 2, 3, 4, 5, 6
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code				X	The project site location is not located within an area listed as hazardous materials sites compiled pursuant to Government Code Section 65962.5 based on the Department of Toxic Substance Control (DTSC) Envirostor mapping.	1, 2, 3, 4, 5, 21, 22, 23

Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?					**No impact.**	
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?				X	Project is not located in the vicinity of an airport. **No impact.**	1, 2, 3, 4, 5, 6, 24
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X		The project will involve a temporary road realignment of Clover Creek Bridge located on 1st Street to redirect traffic over a temporary detour constructed of a culvert and Class II aggregate base. Ultimately, the improved bridge will improve the safety of the bridge crossing for emergency vehicles. **Less than significant impact.**	1, 2, 3, 4, 5, 22, 25
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?		X			Although the project is located within a residentially developed area, construction equipment and vehicles have the potential to ignite fires in the staging areas, and during land clearing and grading activities. However, with incorporation of the mitigation measures below, impacts would be less than significant. **HAZMAT-6: Brush shall be cut and removed, and grass shall be mowed in the staging areas.** **HAZMAT-7: Vehicles and equipment shall be maintained and operated in a manner to prevent hot surfaces, sparks or any other heat sources from igniting grasses, brush or other highly combustible material.** **Less than significant impact when HAZMAT-6 and HAZMAT-7 incorporated.**	1, 2, 3, 4, 5, 22, 25, 26

X. HYDROLOGY AND WATER QUALITY *Would the project:*						
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?		X			The proposed project will involve permanent modification of Clover Creek, by removing the existing concrete abutments and by re-grading the end slopes (up and down stream of the box culvert). The existing bridge will be completely removed before construction of the new structure begins. It is proposed to construct the bottom mat of the box culvert a minimum of 2' below the existing stream flowline to provide a natural bottom. Dewatering of groundwater for construction may be required. If water is encountered during excavation within Clover Creek, it would be dewatered in accordance with the approved Water Pollution Control Program (WPCP) or Storm Water Pollution Prevention Plan (SWPPP) and Regional Water Quality Control Board (RWQCB) 401 permit (see discussion (c) below). During bridge construction, access to the creek (diverted/dewatered area) will be required to remove the existing abutments, to construct the new abutments, and to place rock slope protection. The project has been designed to minimize water quality impacts. The construction of the bridge will occur during summer months when the water volumes are lowest and storm flows are not likely to occur in Clover Creek. If there is water expected in the channel at the time of construction, a stream diversion will be required through the project site (from upstream of the new bridge construction to downstream of the low water crossing) for the duration of the box culvert construction. Falsework may also be placed in the creek bed, and diverting the channel will facilitate placement/removal of the falsework. No work that has the potential to cause creek flow disturbance or decrease water quality will be performed until the diversion plans and WPCP or SWPPP have been approved by both the Engineer and the County. The creek diversion must comply with the contractor's WPCP or SWPPP. The contractor will also be responsible for water quality per the RWQCB 401 permit. **Less than significant impact with BIO-9 through BIO-12 and HAZMAT-1 through HAZMAT-3 incorporated.**	1, 2, 3, 4, 5, 6, 8, 27, 37
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			X		The widening of the bridge and roadway approach area will not significantly increase the impervious surface area within the Clover Creek watershed at the Project site. The added impervious area resulting from the proposed Project would be insignificant compared to the watershed of Clover Creek at the Project location. **Less than significant impact.**	1, 2, 3, 4, 5

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 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 off-site; iii) Create or contribute to runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; iv) Impede or redirect flood flows?		X			Stream flows will be temporarily diverted around the work site, either through gravity flow culverts or with a combination of a pump and hoses. Stream flows will be temporarily diverted around the work site, either through gravity flow culverts or with a combination of a pump and hoses, as discussed in the memo prepared by Quincy Engineering titled "Water Quality Discussion and Dewatering Plan for the County of First Street Bridge Replacement over Clover Creek Project" (2018) . Flow in Clover Creek is controlled upstream with a diversion structure. Most of the flow is diverted to Middle Creek as a flood control measure. The diversion system will be sized to accommodate the flow that would be anticipated during the construction months based on statistical rainfall data generated from the watershed below the diversion structure. If the County is required to maintain a minimum amount of flow from the diversion structure, this would also be considered for sizing the diversion system. The project would minimize the mobilization of sediments during construction by diverting the channel through the construction site and by dewatering. The mitigation measures below will reduce any impacts to water quality from dewatering. **HYD-1: The project would implement Caltrans Best Management Practices (BMPs) for erosion control, including but not limited to:** **• Any concrete structures (such as headwalls or abutments) below the tops of banks shall be placed in tightly sealed forms and shall not come in contact with surface waters until the concrete has fully cured.** **• No substances toxic to aquatic life shall be discharged into Clover Creek (e.g., diesel fuel, oil, hydraulic fluid, run-off from curing concrete, etc.).** **• ESA fencing would be placed along the upstream and downstream limits of the work area to prevent construction equipment and/or construction personnel from inadvertently impacting areas of the streambed outside the designated work area.** **• If hydroseed mixes are used to stabilize disturbed areas, such mixes shall not contain fertilizers.** **• If feasible, equipment maintenance and fueling areas shall be located at least 50 feet away from the creek bank. Fueling must be behind a containment barrier that shall prevent any spilled or leaked fuel from running into the creek. All equipment servicing must occur within designated areas. All motorized equipment used during construction or demolition activities shall be checked for oil, fuel, and coolant leaks prior to initiating work. Any equipment found to be leaking fluids shall not be used in or around aquatic habitat features in order to minimize the chances of contaminating the habitat.** **• The project's contractor shall prepare an emergency response and cleanup plan prior to beginning work at the site. The plan shall detail the methods to be used to contain and cleanup spills of petroleum products or other hazardous materials in the work area.** **• The project design and water quality plan will comply with required work as stated in the Natural Environment Study to avoid and minimize impacts to Clear Lake hitch and Western pond turtle.** Less than significant impact with BIO-9 through BIO-12, GEO-1 through GEO 3, and HYD-1 incorporated.	1, 2, 3, 4, 5, 6, 8, 27, 28, 37
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			X		The project site is not located in an area of potential inundation by seiche or tsunami. The soils at the project site are relatively stable and the site is flat therefore has a minimal potential to induce mudflows.	1, 2, 3, 4, 5, 6, 14, 27, 37

					The project is proposing to replace the existing bridge with a wider new bridge at approximately the same location. As previously discussion (c) above, stream flows will be temporarily diverted around the work site. If the County is required to maintain a minimum amount of flow from the diversion structure, this would also be considered for sizing the diversion system. Active floodplain is nearly non-existent due to the constant control of flows upstream. There is no evidence of Clover Creek experiencing high flows in the last couple of years. A Location Hydraulic Study Report was prepared by Quincy Engineering (2018) to examine and analyze the existing base (100-year) floodplain within the project limits, to document any potential impacts to or encroachments upon the floodplain, and to recommend any avoidance, minimization, or mitigation measures that may be required. The Study found that the project would result in insignificant changes in the 100-year WSEs with a localized increase of 0.1 ft (relative to the existing condition) at the bridge location. Hydraulic modeling found that the proposed action would not significantly modify the characteristics of the existing 100-year floodplain. The Project would not trigger incompatible floodplain development of Clover Creek within the existing floodplain. In addition, the County will coordinate with local, state, and federal water resource and floodplain management agencies as necessary during all aspects of the proposed Project. Regulatory permits and approvals would be required as the Project enters the final design phase. **Less than significant impact.**	
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X		See response to section X (a)(b)(c). Less than significant impact with BIO-9 through BIO-12, GEO-1 through GEO 3, and HYD-1 incorporated.	1, 3, 4, 5, 10, 13, 21, 23, 24, 25, 29, 31, 32, 33, 34
XI. LAND USE AND PLANNING *Would the project:*						
a) Physically divide an established community?				X	The proposed project would not physically divide an established community. The creek is pre-existing and runs through an established neighborhood. No changes to the creek alignment or neighborhood that would further divide it are proposed. **No impact.**	1, 2, 3, 4, 5
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?			X		This project is consistent with the Lake County General Plan, the Upper Lake Area Plan and the Lake County Zoning Ordinance. In addition, the project consists of improving road standards in order to improve public safety for the community. **Less than significant impact.**	1, 2, 3, 4, 5
XII. MINERAL RESOURCES *Would the project:*						
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?				X	According to the California Department of Conservation: Mineral Land Classification, there are no known mineral resources on the project site. **No impact.**	1, 2, 3, 4, 5, 6, 28

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?				X	See response to Section XI (a). **No impact.**	1, 2, 3, 4, 5, 6, 28
XIII. NOISE *Would the project result in:*						
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?		X			It is anticipated that dozers, excavators, pavers, cranes, dump trucks, concrete trucks, concrete pumps, and pneumatic tools may be required to construct the new bridge. Construction is anticipated to be completed within one construction season. The County does not anticipate any night-time work for this project. Therefore, the construction noise regulated by Caltrans Standard Specifications Section 14-8.02, "Noise Control", requiring construction noise will not exceed 86 dBA at 50 feet from the job site activities from 9:00 p.m. to 6:00 a.m. shall not be of concern. Lake County exempts construction noise occurring between the hours of 7:00 a.m. and 7:00 p.m. from quantitative noise limits contained in the County's Zoning Ordinance 41.11(e). General Plan Policy N-1.7 requires contractors to implement noise-reducing mitigation measures during construction when residential uses or other sensitive receptors are located within 500 feet. Some of these measures are included in the list below. According to the Noise Technical Memorandum prepared buy the Department of Public Works, construction equipment is expected to generate noise levels ranging from 70 to 85 dBA at a distance of 50 feet, and noise produced by construction equipment would be reduced at a rate of about 6 dBA per doubling of distance. Adverse noise impacts from construction are anticipated to be minimal because construction would be conducted in accordance with Caltrans Standard Specifications Section 14-8.02 and applicable local noise standards. Construction noise would be short-term (April 15th to October 30th of the construction season), and intermittent. Further, implementing the following measures would minimize the temporary noise impacts from construction: **NOI-1: Noise-generating construction activities shall be restricted to the hours of 7:00 a.m. to 7:00 p.m. If work is necessary outside of these hours, the County will require the contractor to implement a construction noise monitoring program and provide additional mitigation as necessary to meet the County's Zoning Ordinance noise limits (in the form of noise control blankets or other temporary noise barriers, etc.)** **NOI-2: Contractors shall assure that mobile noise-generating equipment and machinery are shut off when not in use.** **NOI-3: At least 72 hours prior to commencing construction, neighbors located adjacent to the construction site shall be notified of the construction schedule in writing.** **NOI-4: A project liaison shall be designated to respond to noise complaints during the construction phase. The name and phone number of the liaison shall be conspicuously posted at construction areas and on all advanced notifications. This person shall take steps to resolve complaints, including periodic noise monitoring, if necessary. Results of noise monitoring shall be presented at regular project meetings with the project contractor, and the liaison shall coordinate with the contractor to modify any construction activities that generated excessive noise levels to the extent feasible.**	1, 2, 3, 4, 5, 7, 29

					NOI-5: A reporting program that documents complaints received, actions taken to resolve problems, and effectiveness of these actions shall be required and maintained throughout construction. **NOI-6: A preconstruction meeting with the job inspectors and the general contractor/on-site project manager shall be held to confirm that noise mitigation and practices (including construction hours, construction schedule, and noise coordinator) are completed.** **Less than significant impact when NOI-1 through NOI-6 incorporated.**	
b) Generation of excessive ground-borne vibration or ground-borne noise levels?		X			The project will take place in County of Lake road right-of-way and will be adjacent to areas zoned Low Density Residential, Medium Density Residential, and Agriculture. There are residences immediately adjacent to the project site, with the nearest residence approximately 40 feet away. Noise sources that contribute to ambient noise levels in and adjacent to the project site include low levels of traffic from local streets and noise from residential activities. Potentially sensitive noise receptors in the vicinity of the project site include the nearby residences. The increases in noise levels due to the bridge replacement will be temporary and will not result in a permanent increase in noise levels at the project site. **NOI-7: Stationary construction noise sources shall be located as far from sensitive receptors as feasible. If they must be located near receptors, adequate muffling (with enclosures where feasible and appropriate) will be used. Any enclosure openings or venting will face away from sensitive receptors.** **NOI-8: The construction contractor shall utilize "quiet" models of air compressors and other stationary noise sources where technology exists. Impact tools, such as jackhammers, rock drills, etc., used for project construction shall be hydraulically or electrically powered whenever possible to avoid noise associated with compressed-air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed-air exhaust shall be used; such mufflers can lower noise levels from the exhaust by up to 10 dBA. External jackets on the tools themselves shall be used where feasible, which could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever feasible.** **Less than significant impact when NOI-7 and NOI-8 incorporated.**	1, 2, 3, 4, 5, 7, 29
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?				X	Project is not located within an airport land use plan or within 2 miles of a public airport. **No impact.**	1, 2, 3, 4, 5, 6, 24
XIV. POPULATION AND HOUSING *Would the project:*						

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)?			X		The improved project will not induce substantial population growth in the area. However, the area is located within general plan designation low- to high-density residential—with the improvements by widening the bridge, it will provide a safe access for more pedestrians and bicyclists to utilize the road. **Less than significant impact.**	1, 2, 3, 4, 5
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?			X		No housing will be displaced as a result of the project. However, during duration of the construction, the road will be closed at the bridge site. Access will still be maintained for those residents with driveways adjacent to the bridge. There are multiple alternative routes that residents could use to access their property. The maximum delay would be for residents on the east side of the bridge heading toward highway 20 westbound. The delay for those residents will be approximately 5 minutes. 30 days prior to construction, the County will place Changeable Message Sign (CMS) boards on First Street warning residents of the upcoming road closure. In addition to the CMS boards, a notice will also be placed on the County's website as well as in the local newspaper. Flyers will also be distributed to the nearby residents to warn of the road closure. The road closure is anticipated to last 3 months. **Less than significant impact.**	1, 2, 3, 4, 5
XV. PUBLIC SERVICES *Would the project:*						
a) Would the project 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?		X			The proposed project will not result in any provisions nor need of new governmental facility. However, it may adversely affect the response time for any public services through temporary detour during construction. However, thirty days prior to construction, the County will place Changeable Message Sign (CMS) boards on First Street warning residents of the upcoming closure. In addition to the CMS boards, a notice will also be placed on the County's website as well as the local newspaper. Flyers will also be distributed to the nearby residents to warn of the road closure. The road closure is anticipated to last three months. The project will not result in the need for additional public services and ultimately, the improved bridge will improve the safety of the bridge crossing for emergency vehicles. **PUB-1: Local sheriff, fire districts, and ambulance services will be notified prior to the commencement of construction with information specifying the date and times of anticipated traffic delays and diversions. All traffic delays will be minimized whenever possible. Construction road closures during school bussing hours shall be avoided.** **Less than significant impact with mitigation measures PUB-1 incorporated.**	1, 2, 3, 4, 5, 7, 22, 25
XVI. RECREATION *Would the project:*						
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?				X	This project will not impact the use of recreational facilities. No impact.	1, 2, 3, 4, 5

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?				X	No population increase that would result in the need for additional facilities is proposed or expected. **No impact.**	1, 2, 3, 4, 5
XVII. TRANSPORTATION *Would the project:*						
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle lanes and pedestrian paths?		X			According to the Traffic Technical Memorandum (2014), 1st street will be temporarily closed at the bridge site for the duration of construction. Access will still be maintained for those residents with driveways adjacent to the bridge. There are multiple alternative routes that residents could use to access their property. The maximum delay would be for the residents on the east side of the bridge heading toward highway 20 westbound. The delay for these residents will be approximately 5 minutes. Thirty days prior to construction, the County will place Changeable Message Sign (CMS) boards on First Street warning residents of the upcoming road closure. Overall, the result of the bridge will not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system. In fact, the project will improve the performance of the circulation system by providing safe access for pedestrians and bicyclists, as well as, vehicles. **Less than significant impact with incorporation of mitigation measure PUB-1.**	1, 2, 3, 4, 5, 6, 32, 33, 34, 36
b) For a land use project, would the project conflict with or be inconsistent with CEQA guidelines section 15064.3, subdivision (b)?			X		See Response to Section XVII (a). The multiple alternative routes may potentially increase vehicle miles traveled, however, the delay for some nearby residence would only be approximately five minutes. **Less than significant impact.**	1, 3, 4, 5, 9, 20, 22, 27, 28, 35
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?		X			The existing bridge does not have adequate shoulders and has limited vertical sight distance. The concrete bridge barriers do not meet current safety standards and there are no approach railings. The proposed project will replace the bridge with a reinforced concrete box culvert. The continuous mat foundation of the box culvert is well suited for the weak liquefiable soils at the site. The culvert will be designed to pass the 50-year and 100-year design storms without freeboard. Road work will include reconstructing the approaches along First Street conforming at the intersection with Washington Street to the west, and approximately 200' past the bridge to the east. The approach road width will be constructed to current County standards, with 10' lanes, 5' shoulders and 5' sidewalks. The driveways will be reconstructed to conform to the new roadway profile. The project will ultimately increase the safety of the bridge and roadway. **Less than significant impact with incorporation of mitigation measure PUB-1.**	1, 2, 3, 4, 5, 32, 34, 36
d) Result in inadequate emergency access?			X		See discussion (d) above. Ultimately, the improved bridge will improve the safety of the bridge crossing for emergency vehicles. **Less than significant impact with incorporation of mitigation measure PUB-1.**	1, 3, 4, 5, 9, 20, 22, 27, 28, 35
XVIII. **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:*						
a) Listed or eligible for listing in the California Register of Historical Resources, or in a		X			See response for section V (a)(b).	1, 3, 4, 5, 11, 14, 15

local register of historical resources as defined in Public Resources Code section 5020.1(k), or					**Less than significant impact with mitigation measures CUL-1 added.**	
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 Resources Code 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.		X			There are no mapped significant resources that are on or adjacent to the site. See response for section V (a). **Less than significant impact with mitigation measures CUL-1 added.**	1, 3, 4, 5, 11, 14, 15
XIX. **UTILITIES AND SERVICE SYSTEMS** *Would the project:*						
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?				X	This project is the improvement of an existing bridge and will not induce the need for other facilities. **No impact.**	1, 2, 3, 4, 5
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?				X	There is no requirement for water supplies for this project. **No impact.**	1, 2, 3, 4, 5
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?				X	There is no need for wastewater treatment for this project. **No impact.**	1, 2, 3, 4, 5
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?			X		The existing bridge will be sent to recycling facilities as appropriate. Very little, if any, waste will be disposed at the local landfill. The landfill has the capacity to accommodate the minimal construction-related waste. The proposed project would not significantly impact local or regional landfills. **Less than significant impact.**	1, 2, 3, 4, 5, 33
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			X		The county landfill has sufficient capacity to service the minimal solid waste disposal needs of the project. **Less than significant impact.**	1, 2, 3, 4, 5, 33

XX. **WILDFIRE** ***If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:***						
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?				X	The project is not located within nor near state responsibility areas or land classified as very high fire hazard.	1, 2, 4, 5, 6, 20, 23, 31, 35, 37, 38
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?				X	The project is not located within nor near state responsibility areas or land classified as very high fire hazard.	1, 2, 4, 5, 6, 20, 23, 31, 35, 37, 38
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?				X	The project is not located within nor near state responsibility areas or land classified as very high fire hazard.	1, 2, 4, 5, 6, 20, 23, 31, 35, 37, 38
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?				X	The project is not located within nor near state responsibility areas or land classified as very high fire hazard.	1, 2, 4, 5, 6, 20, 23, 31, 35, 37, 38
XXI. **MANDATORY FINDINGS OF SIGNIFICANCE** *Would the project:*						
a) Does the project have the potential to substantially 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?		X			The project is an improvement to the existing bridge to improve and meet current road standards. The project has the possibility to impact Air Quality, Biological Resources, Cultural Resources, Geology/Soils, Hazards & Hazardous Materials, Hydrology/Water Quality, Noise, Public Services, and Transportation. However, with the proposed mitigation measures incorporated throughout this Initial Study, and approval of regulatory permits, the potential to substantially degrade the quality of the environment would be greatly reduced. All impacts would be reduced to Less Than Significant. **Less than significant impact with mitigation measures AQ-1 and AQ-2, BIO-1 through BIO-13, CUL-1, GEO-1 through GEO-4, HAZMAT-1 through HAZMAT-7, HYD-1, NOI-1 through NOI-8, and PUB-1 added.**	All
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		X			The proposed project is a replacement of an existing bridge deemed to be unsafe for the public or "functionally obsolete" based on a CalTrans rating for road standards. As mentioned in (a) above, the project has the potential to impact Air Quality, Biological Resources, Cultural Resources, Geology/Soils, Hazards & Hazardous Materials, Hydrology/Water Quality, Noise, Public Services, and Transportation. However, with incorporation of mitigation measures, impacts would be reduced to less than significant.	All

of past projects, the effects of other current projects, and the effects of probable future projects)?					According to the hydraulic modeling completed for the project, the creek will revert to its' natural state once construction is completed; impacts to upstream and downstream flows would be less than significant. See Section IX, Hydrology and Water Quality, for more information. It is possible that other future creek and bridge maintenance projects may occur in the vicinity, but with incorporation of similar mitigation measures, and adherence to all local, state and federal regulations, the project, in combination with any other projects would not be cumulatively considerable. **Less than significant impact with mitigation measures AQ-1 and AQ-2, BIO-1 through BIO-13, CUL-1, GEO-1 through GEO-4, HAZMAT-1 through HAZMAT-7, HYD-1, NOI-1 through NOI-8, and PUB-1 added.**	
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		X			See response for Section XIX (a)(b). **Less than significant impact with mitigation measures AQ-1 and AQ-2, BIO-1 through BIO-13, CUL-1, GEO-1 through GEO-4, HAZMAT-1 through HAZMAT-7, HYD-1, NOI-1 through NOI-8, and PUB-1 added.**	All

* Impact Categories defined by CEQA

****Source List**

1. Lake County General Plan
2. Upper Lake-Nice Area Plan
3. Lake County Zoning Ordinance
4. Site Visit: 07/31/2020
5. Community Development Department Application
6. U.S.G.S. Topographic Maps
7. California Department of Transportation: http://www.dot.ca.gov
8. U.S.D.A. Lake County Soil Survey
9. Lake County Important Farmland 2006 map, California Department of Conservation Farmland Mapping and Monitoring Program
10. Lake County Serpentine Soil mapping
11. Lake County Air Quality Management District comments, 2/11/2020
12. Crawford & Associates, Inc. Geotechnical Engineering, Design and Construction Services, March 12, 2019
13. California Natural Diversity Database
14. Natural Environment Study, for the Clover Creek Bridge Replacement at First Street (Northwest Biosurvey) February 2015
15. Preliminary Biological Survey, Northwest Biosurvey, August 16, 2012
16. Archaeological Survey Report, Clover Creek Bridge Replacement Project (Archaeological Services, Inc.), April 22, 2013
17. Historical Resources Evaluation Report, LSA Associates, Inc., March 2018
18. U.S.G.S. Geologic Map and Structure Sections of the Clear Lake Volcanics, Northern California, Miscellaneous Investigation Series, 1995
19. Official Alquist-Priolo Earthquake Fault Zone maps for Lake County
20. Lawrence Livermore landslide map series for Lake County, 1979
21. Lake County Natural Hazard database
22. Lake County Emergency Management Plan
23. Lake County Airport Land Use Compatibility Plan, adopted 1992
24. California Department of Forestry and Fire Protection, fire hazard mapping
25. FEMA flood hazard maps
26. National Pollution Discharge Elimination System (NPDES)
27. Location Hydraulic Study Report, Clover Creek Bridge Replacement at First Street, WRECO, May 2018
28. Lake County Aggregate Resource Management Plan
29. Temporary Construction Noise-First Street Bridge (14C-0015) over Clover Creek, Bridge Replacement Project, Federal Aid No. BRLO-5914(079), May 21, 2015
30. Lake County Bicycle Plan
31. Lake County Transit for Bus Routes
32. Lake County Department of Public Works, Roads Division
33. Lake County Waste Management Department
34. Lake County Grading Ordinance
35. Lake County Department of Public Works Surveyor Comments, January 1, 2020
36. Traffic Technical Memorandum, March 27, 2014
37. Quincy Engineering, Water Quality Discussion and Dewatering Plan for the County of First Street Bridge Replacement over Clover Creek Project [BRLO-5914(079)], May 1 2018